

## Safety Data Sheet

acc. to OSHA HCS

Article Number 100

Revision Number 2

Revision Date 23/1/2015

### \* Section 1. Identification

**Product identifier:** EPDM

- **Tradename:** Royal Edge LSFR EPDM, Royal Edge FR (fire rated) Membrane, Royal Edge Reinforced Membrane, Uncured Flashing, Pipe Boot Flashing, Cured Cover Strip, Reinforced Perimeter Strip, Re-Flex EPDM Membrane
- **Relevant identified uses of the substance or mixture:** Construction

**Details of the supplier of the safety data sheet Manufacturer/Supplier:**

Roofing Products International, Inc.

57460 Dewitt St.

Elkhart, IN 46517-1078

Telephone: 1-574-293-9096

Information Department: Technical Services Department

- **Emergency telephone number:**

Chemtrec United States 1(800) 424-9300 International 703-527-3887

### \* Section 2. Hazard(s) Identification

**EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

**CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

- **CLP:** Not Classified
- **DSD/DLP:** Not Classified

**LABEL ELEMENTS**

- **CLP:** Hazard Statements: No Label Elements Required
- **DSD/DLP:** Risk Phrases: No Label Elements Required

**OTHER HAZARDS**

- **CLP:** This product is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- **DSD/DPD:** Under European Directive 1999/45/EC these products are considered exempt and considered manufactured article(s) under stated normal conditions of use.

**UNITED STATES (US)**

According to OSHA 29 CFR 1910.1200 HCS

**CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

- **OSHA HCS 2012:** Not Classified

**LABEL ELEMENTS**

- **OSHA HCS 2012:** Not Classified
- **Hazard Statements:** No label element(s) required

**OTHER HAZARDS**

- **OSHA HCS 2012:** Under United States Regulations (29 CFR 1910.1200-Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

(Contd. on page 2)

Tradename: Royal Edge LSFR EPDM, Royal Edge FR (fire-rated), Royal Edge Uncured Flashing, Royal Edge Pipe Boots, Royal Edge Cured Cover Strip, Reinforced Perimeter Strip, Re-Flex EPDM Membrane, Re-Flex Uncured Flashing

(Contd. of page 1)

**CANADA**

According to WHMIS

**CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

- **WHMIS:** Not Classified

**LABEL ELEMENTS**

- **WHMIS:** Not Classified
- **WHMIS:** No label element(s) required

**OTHER HAZARDS**

- **WHMIS:** Under Canadian Regulations Workplace Hazardous Materials Information System (WHMIS) Hazardous Products Act (HPA,) Section 11 (1.), these product(s) are exempt as an article under stated normal conditions of use.

**OTHER INFORMATION**

This material, as an article, does not legally require an SDS. See Section 12 for Ecological Information

\* **Section 3. Composition/Information on Ingredients**

- **Substances**  
This material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.
- **Mixtures**

Composition					
Chemical Name	Identifiers	LD50/LC50	%	Classifications according to Regulation/Directive	Comments
Non-Hazardous Components	NA	NA	100%	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NA

See Section 11 for Toxicological information

\* **Section 4. First-Aid Measures**

**Description of first aid measures**

- **Inhalation:** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If symptoms/signs of difficulty breathing develop, move person to fresh air. Administer oxygen if breathing is difficult. If breathing stops, give artificial respiration and seek immediate medical attention.
- **Skin Contact:** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs of irritation develop, seek medical attention.
- **After eye contact:** First aid is not expected to be necessary if material is used as recommended under normal conditions. Check for and remove contact lenses. Rinse opened eye with clean, running water. Seek medical attention.
- **After Ingestion:** First aid is not expected to be necessary if material is used as recommended under normal conditions. If signs/symptoms develop seek medical attention.
- **Most important symptoms and effects, both acute and delayed**  
Refer to Section 11- Toxicological Information.
- **Indication of any immediate medical attention and special treatment needed**  
Notes to physician: All symptoms should be based upon observed signs and symptoms of distress by patient. Consideration should be given that the patient may have been exposed and is reacting from overexposure to materials other than this product. Call a Physician immediately.

(Contd. on page 3)

Tradename: Royal Edge LSFR EPDM, Royal Edge FR (fire-rated), Royal Edge Uncured Flashing, Royal Edge Pipe Boots, Royal Edge Cured Cover Strip, Reinforced Perimeter Strip, Re-Flex EPDM Membrane, Re-Flex Uncured Flashing

(Contd. of page 2)

## \* Section 5. Fire-Fighting Measures

### Extinguishing media

- **Suitable extinguishing agents:** Water, sand, extinguishing powder, or foam.
- **For safety reasons unsuitable extinguishing agents:**

None known

### Special hazards arising from the substance or mixture.

- **Unusual fire and explosion conditions:** Does not present and special fire or explosion hazards.
- **Hazardous Thermal Decomposition Products:** Upon reaching temperatures of combustion, material produces toxic and/or corrosive fumes.

### Advise for Firefighters

- **Protective equipment:** Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face operated in positive pressure mode. Structural firefighters protective clothing will only provide limited protection.

## \* Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

- **Personal precautions:** No special precautions are expected to be necessary if material is used as recommended under normal conditions.
- **Emergency procedures:** No emergency procedures are expected to be necessary if material is used as recommended under normal conditions.
- **Environmental precautions:** No special precautions are necessary.

### Methods and material for containment and clean-up

- **Containment and clean-up measures:** Pick up pieces and place in bag or container for disposal.

### Reference to other sections

Refer to section 8- Exposure Controls and Personal Protection and Section 13- Disposal Considerations.

## \* Section 7. Handling and Storage

### Precautions for safe handling

- **Handling:**  
Ensure proper air ventilation/exhaust at the workplace. Under normal handling conditions, protective gloves, glasses, and clothing are adequate.

### Conditions for safe storage, including any incompatibilities

- **Storage:** Store in cool, dry, well ventilated place

- **Specific end use(s)**

Refer to Section 1. relevant identified use (s).

## \* Section 8. Exposure Controls/Personal Protection

### Control parameters

- **Exposure Limits/Guidlines:** No exposure guideline/limits available for the material or the components.

### Exposure controls

- **Engineering measures/Controls:** Under normal conditions, special ventilation is not required.

### Personal Protective Equipment

- **Respiratory:** Respiratory protection is not required under normal conditions of use.
- **Eye/Face:** Under normal conditions of use, eye protection is not required.
- **Skin/Body:** Under normal conditions of use, skin protection is not required.

(Contd. on page 4)

**Tradename:** Royal Edge LSFR EPDM, Royal Edge FR (fire-rated), Royal Edge Uncured Flashing, Royal Edge Pipe Boots, Royal Edge Cured Cover Strip, Reinforced Perimeter Strip, Re-Flex EPDM Membrane, Re-Flex Uncured Flashing

*(Contd. of page 3)*

• **Environmental Exposure Controls**

Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH=American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages based on 8hr/day, 40h/week exposures

\* **Section 9. Physical and Chemical Properties**

**Information on basic physical and chemical properties**

<b>Material Description</b>			
<b>Physical Form</b>	Solid	<b>Appearance/Description</b>	Black or White solid with slight rubber odor
<b>Color</b>	Black or White	<b>Odor</b>	Slight rubber odor
<b>General Properties</b>			
<b>Odor Threshold</b>	No Data		
<b>Boiling Point</b>	Not relevant	<b>Melting Point</b>	Data lacking
<b>Decomposition Temperature</b>	Data lacking	<b>pH</b>	Not relevant
<b>Specific Gravity/Relative Density</b>	> 1 Water=1	<b>Water Solubility</b>	Negligible < 0.1 %
<b>Viscosity</b>	Not relevant	<b>Explosive Properties</b>	Not relevant.
<b>Oxidizing Properties:</b>	Not relevant		
<b>Volatility</b>			
<b>Vapor Pressure</b>	Not relevant	<b>Vapor Density</b>	Not relevant
<b>Evaporation Rate</b>	Not relevant		
<b>Flammability</b>			
<b>Flash Point</b>	Not relevant	<b>UEL</b>	Not relevant
<b>LEL</b>	Not relevant	<b>Autoignition</b>	Not relevant
<b>Flammability (solid, gas)</b>	Not relevant		
<b>Environmental</b>	No additional physical and chemical parameters noted.		
<b>Octanol/Water Partition coefficient</b>	Data lacking		

\* **Section 10. Stability and Reactivity**

- **Reactivity:** No dangerous reactions known when used as recommended under normal conditions.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** Hazardous polymerization will not occur
- **Conditions to avoid:** Avoid open flames, sparks, and other sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Thermal decomposition could produce CO, CO<sub>2</sub>, sulphur oxides and oxides of nitrogen

*(Contd. on page 5)*

Tradename: Royal Edge LSFR EPDM, Royal Edge FR (fire-rated), Royal Edge Uncured Flashing, Royal Edge Pipe Boots, Royal Edge Cured Cover Strip, Reinforced Perimeter Strip, Re-Flex EPDM Membrane, Re-Flex Uncured Flashing

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**\* Section 11. Toxicological Information**

**Information on toxicological effects**

- **Material information:** This material is an article that does not release or otherwise result in exposure to a hazardous chemical when used as recommended under normal conditions. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
• <b>Acute Toxicity</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Germ Cell Mutagenicity</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Skin Corrosion/irritation</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Skin Sensitization</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>STOE-RE</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>STOT-SE</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Toxicity for Reproduction</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Respiratory Sensitization</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Serious Eye Damage/Irritation</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

**Potential Health Effects**

• <b>Skin</b>	
• <b>Acute (Immediate)</b>	Under normal conditions of use, no health effects are expected.
• <b>Chronic (Delayed)</b>	Under normal conditions of use, no health effects are expected.
• <b>Eye</b>	
• <b>Acute (Immediate)</b>	Under normal conditions of use, no health effects are expected.
• <b>Chronic (Delayed)</b>	Under normal conditions of use, no health effects are expected.
• <b>Ingestion</b>	
• <b>Acute (Immediate)</b>	Under normal conditions of use, no health effects are expected.
• <b>Chronic (Delayed)</b>	Under normal conditions of use, no health effects are expected.
• <b>Inhalation Acute</b>	
• <b>(Immediate)</b>	Under normal conditions of use, no health effects are expected.
• <b>Chronic (Delayed)</b>	Under normal conditions of use, no health effects are expected.
• <b>Reproductive Effects</b>	No Reproductive effects expected.

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Tradename: Royal Edge LSF<sup>R</sup> EPDM, Royal Edge FR (fire-rated), Royal Edge Uncured Flashing, Royal Edge Pipe Boots, Royal Edge Cured Cover Strip, Reinforced Perimeter Strip, Re-Flex EPDM Membrane, Re-Flex Uncured Flashing

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**\* Section 12. Ecological Information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

**Ecotoxicological effects**

- **Remark:** No further relevant information available.

**Additional ecological information**

- **General notes:** At present there are no ecotoxicological assessments.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

**\* Section 13. Disposal Considerations**

**Waste treatment methods**

- **Product waste**
- **Recommendation:** Dispose of waste product and/or container according to local, regional, state, and national/international regulations.
- **Packaging waste**
- **Recommendation:** Dispose of packaging or container according to local, regional, state, and national/international regulations.

**\* Section 14. Transport Information**

	<b>UN number</b>	<b>UN proper shipping name</b>	<b>Transport hazard class(es)</b>	<b>Packing group</b>	<b>Environmental hazards</b>
<b>DOT</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>TDG</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>IMO/IMDG</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>ADN</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>ADR/RID</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>IATA/ICAO</b>	NDA	Not Regulated	NDA	NDA	NDA

- **Special precautions for user**  
None known.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
None known.

**\* Section 15. Regulatory Information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **SARA Hazard Classifications:** None

(Contd. on page 7)



**Tradename:** Royal Edge LSF<sup>R</sup> EPDM, Royal Edge FR (fire-rated), Royal Edge Uncured Flashing, Royal Edge Pipe Boots, Royal Edge Cured Cover Strip, Reinforced Perimeter Strip, Re-Flex EPDM Membrane, Re-Flex Uncured Flashing

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**\* Section 15. Regulatory Information**

**Canada**

• **Labor**

• *Canada - WHMIS - Classifications of Substances: Not Listed*

• *Canada - WHMIS - Ingredient Disclosure List: Not Listed*

• **Environment**

• *Canada - CEPA - Priority Substances List: Not Listed*

**United States**

• **Labor**

*U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals: Not Listed*

**Environment**

*U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants: Not Listed*

*U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities: Not Listed*

*U.S. - CERCLA/SARA - Radionuclides and Their Reportable : Not Listed*

*U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs: Not Listed*

*U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs: Not Listed*

*U.S. - CERCLA/SARA - Section 313 - Emission Reporting: Not Listed*

*U.S. - CERCLA/SARA - Section 313 - PBT Chemical: Not Listed*

**United States - California**

• **Environment**

*U.S. - California - Proposition 65 - Carcinogens List: Not Listed*

*U.S. - California - Proposition 65 - Developmental Toxicity: Not Listed*

*U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MAD): Not Listed*

*U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL): Not Listed*

*U.S. - California - Proposition 65 - Reproductive Toxicity - Female: Not Listed*

*U.S. - California - Proposition 65 - Reproductive Toxicity - Male: Not Listed*

**United States - Pennsylvania**

• **Labor**

*U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List: Not Listed*

*U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances: Not Listed*

**Chemical Safety Assessment:** *Chemical Safety Assessment is not required.*

**\* Section 16. Other Information**

*Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.*

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation/ last revision** 23/1/2015

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# Safety Data Sheet

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acc. to OSHA HCS

Article Number 100

Revision Number 2

Revision Date 23/1/2015

**Tradename:** Royal Edge LSFR EPDM, Royal Edge FR (fire-rated), Royal Edge Uncured Flashing, Royal Edge Pipe Boots, Royal Edge Cured Cover Strip, Reinforced Perimeter Strip, Re-Flex EPDM Membrane, Re-Flex Uncured Flashing

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• **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

End of SDS



## Safety Data Sheet

acc. to OSHA HCS

Article Number 101

Revision Number 2

Revision Date 23/1/2015

### \* Section 1. Identification

**Product identifier:** *Uncured EPDM Flashing Membrane*

- **Trade name:** *Royal Edge Uncured Flashing, Re-Flex EPDM Uncured Flashing*
- **Relevant identified uses of the substance or mixture:** *Construction*

**Details of the supplier of the safety data sheet Manufacturer/Supplier**

*Roofing Products International, Inc.*

*57460 Dewitt St.*

*Elkhart, IN 46517-1078*

*Telephone: 1-574-293-9096*

*Information Department: Technical Services Department*

**Emergency telephone number**

*Chemtrec United States 1(800) 424-9300 International 703-527-3887*

### \* Section 2. Hazard(s) Identification

**EU/EEC**

*According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)*

**CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

- **CLP:** *Not Classified*
- **DSD/DLP:** *Not Classified*

**LABEL ELEMENTS**

- **CLP:** *Hazard Statements: No Label Elements Required*
- **DSD/DLP:** *Risk Phrases: No Label Elements Required*

**OTHER HAZARDS**

- **CLP:** *This product is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.*
- **DSD/DPD:** *Under European Directive 1999/45/EC these products are considered exempt and considered manufactured article(s) under stated normal conditions of use.*

**UNITED STATES (US)**

*According to OSHA 29 CFR 1910.1200 HCS*

**CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

- **OSHA HCS 2012:** *Not Classified*

**LABEL ELEMENTS**

- **OSHA HCS 2012:** *Not Classified*
- **Hazard Statements:** *No label element(s) required*

**OTHER HAZARDS**

- **OSHA HCS 2012:** *Under United States Regulations (29 CFR 1910.1200-Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.*

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# Safety Data Sheet

acc. to OSHAHCS

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Article Number 101

Revision Number 2

Revision Date 23/1/2015

Tradename: Royal Edge Uncured Flashing, Re-Flex EPDM Uncured Flashing

(Contd. of page 1)

## CANADA

- According to WHMIS

## CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

- WHMIS: Not Classified

## LABEL ELEMENTS

- WHMIS: Not Classified
- WHMIS: No label element(s) required

## OTHER HAZARDS

- WHMIS: Under Canadian Regulations Workplace Hazardous Materials Information System (WHMIS) Hazardous Products Act (HPA,) Section 11 (1.), these product(s) are exempt as an article under stated normal conditions of use.

## OTHER INFORMATION

This material, as an article, does not legally require an SDS. See Section 12 for Ecological Information

## \* Section 3. Composition/Information on Ingredients

### Substances

This material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

### Mixtures

Composition					
Chemical Name	Identifiers	LD50/LC50	%	Classifications according to Regulation/Directive	Comments
Non-Hazardous Components	NA	NA	100%	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NA

See Section 11 for Toxicological information

## \* Section 4. First-Aid Measures

### Description of first aid measures

- **Inhalation:** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If symptoms/signs of difficulty breathing develop, move person to fresh air. Administer oxygen if breathing is difficult. If breathing stops, give artificial respiration and seek immediate medical attention.
- **Skin Contact:** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs of irritation develop, seek medical attention.
- **After eye contact:** First aid is not expected to be necessary if material is used as recommended under normal conditions. Check for and remove contact lenses. Rinse opened eye with clean, running water. Seek medical attention.
- **After Ingestion:** First aid is not expected to be necessary if material is used as recommended under normal conditions. If signs/symptoms develop seek medical attention.

### Most important symptoms and effects, both acute and delayed

Refer to Section 11- Toxicological Information.

- **Indication of any immediate medical attention and special treatment needed**

Notes to physician: All symptoms should be based upon observed signs and symptoms of distress by patient. Consideration should be given that the patient may have been exposed and is reacting from overexposure to materials other than this product. Call a Physician immediately.

(Contd. on page 3)

Tradename: Royal Edge Uncured Flashing, Re-Flex EPDM Uncured Flashing

(Contd. of page 2)

\* **Section 5. Fire-Fighting Measures**

**Extinguishing media**

- **Suitable extinguishing agents:** Water, sand, extinguishing powder, or foam.
- **For safety reasons unsuitable extinguishing agents:**  
None known

**Special hazards arising from the substance or mixture.**

- **Unusual fire and explosion conditions:** Does not present and special fire or explosion hazards.
- **Hazardous Thermal Decomposition Products:** Upon reaching temperatures of combustion, material produces toxic and/or corrosive fumes.

**Advise for Firefighters**

- **Protective equipment:** Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face operated in positive pressure mode. Structural firefighters protective clothing will only provide limited protection.

\* **Section 6. Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures**

- **Personal precautions:** No special precautions are expected to be necessary if material is used as recommended under normal conditions.
- **Emergency procedures:** No emergency procedures are expected to be necessary if material is used as recommended under normal conditions.
- **Environmental precautions:** No special precautions are necessary.

**Methods and material for containment and clean-up**

**Containment and clean-up measures:** Pick up pieces and place in bag or container for disposal.

- **Reference to other sections**  
Refer to section 8- Exposure Controls and Personal Protection and Section 13- Disposal Considerations.

\* **Section 7. Handling and Storage**

**Precautions for safe handling**

- **Handling:**  
Ensure proper air ventilation/exhaust at the workplace. Under normal handling conditions, protective gloves, glasses, and clothing are adequate.

**Conditions for safe storage, including any incompatibilities**

- **Storage:** Store in cool, dry, well ventilated place
- **Specific end use(s)**  
Refer to Section 1. relevant identified use (s).

\* **Section 8. Exposure Controls/Personal Protection**

**Control parameters**

- **Exposure Limits/Guidelines:** No exposure guideline/limits available for the material or the components.

**Exposure controls**

- **Engineering measures/Controls:** Under normal conditions, special ventilation is not required.

**Personal Protective Equipment**

- **Respiratory:** Respiratory protection is not required under normal conditions of use.
- **Eye/Face:** Under normal conditions of use, eye protection is not required.
- **Skin/Body:** Under normal conditions of use, skin protection is not required.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHAHCS

Article Number 101

Revision Number 2

Revision Date 23/1/2015

Tradename: Royal Edge Uncured Flashing, Re-Flex EPDM Uncured Flashing

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## Environmental Exposure Controls

Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH=American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages based on 8hr/day, 40h/week exposures

## \* Section 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Material Description			
<b>Physical Form</b>	Solid	<b>Appearance/Description</b>	Black or White solid with slight rubber odor
<b>Color</b>	Black or White	<b>Odor</b>	Slight rubber odor
General Properties			
<b>Odor Threshold</b>	No Data		
<b>Boiling Point</b>	Not relevant	<b>Melting Point</b>	Data lacking
<b>Decomposition Temperature</b>	Data lacking	<b>pH</b>	Not relevant
<b>Specific Gravity/Relative Density</b>	> 1 Water=1	<b>Water Solubility</b>	Negligible < 0.1 %
<b>Viscosity</b>	Not relevant	<b>Explosive Properties</b>	Not relevant.
<b>Oxidizing Properties:</b>	Not relevant		
Volatility			
<b>Vapor Pressure</b>	Not relevant	<b>Vapor Density</b>	Not relevant
<b>Evaporation Rate</b>	Not relevant		
Flammability			
<b>Flash Point</b>	Not relevant	<b>UEL</b>	Not relevant
<b>LEL</b>	Not relevant	<b>Autoignition</b>	Not relevant
<b>Flammability (solid, gas)</b>	Not relevant		
<b>Environmental</b>	No additional physical and chemical parameters noted.		
<b>Octanol/Water Partition coefficient</b>	Data lacking		

## \* Section 10. Stability and Reactivity

- **Reactivity:** No dangerous reactions known when used as recommended under normal conditions.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** Hazardous polymerization will not occur
- **Conditions to avoid:** Avoid open flames, sparks, and other sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Thermal decomposition could produce CO, CO<sub>2</sub>, sulphur oxides and oxides of nitrogen

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**\* Section 11. Toxicological Information**

**Information on toxicological effects**

- **Material information:** This material is an article that does not release or otherwise result in exposure to a hazardous chemical when used as recommended under normal conditions. The information provided below is for components only and is not expected to be applicable to the material as a whole.

<b>GHS Properties</b>	<b>Classification</b>
• <b>Acute Toxicity</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Germ Cell Mutagenicity</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Skin Corrosion/irritation</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Skin Sensitization</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>STOE-RE</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>STOT-SE</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Toxicity for Reproduction</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Respiratory Sensitization</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• <b>Serious Eye Damage/Irritation</b>	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

**Potential Health Effects**

• <b>Skin</b>	
• <b>Acute (Immediate)</b>	Under normal conditions of use, no health effects are expected.
• <b>Chronic (Delayed)</b>	Under normal conditions of use, no health effects are expected.
• <b>Eye</b>	
• <b>Acute (Immediate)</b>	Under normal conditions of use, no health effects are expected.
• <b>Chronic (Delayed)</b>	Under normal conditions of use, no health effects are expected.
• <b>Ingestion</b>	
• <b>Acute (Immediate)</b>	Under normal conditions of use, no health effects are expected.
• <b>Chronic (Delayed)</b>	Under normal conditions of use, no health effects are expected.
• <b>Inhalation Acute</b>	
• <b>(Immediate)</b>	Under normal conditions of use, no health effects are expected.
• <b>Chronic (Delayed)</b>	Under normal conditions of use, no health effects are expected.
• <b>Reproductive Effects</b>	No Reproductive effects expected.

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**\* Section 12. Ecological Information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

**Behavior in environmental systems**

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

**Ecotoxicological effects**

- **Remark:** No further relevant information available.

**Additional ecological information**

**General notes:** At present there are no ecotoxicological assessments.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

**\* Section 13. Disposal Considerations**

**Waste treatment methods**

- **Product waste**
- **Recommendation:** Dispose of waste product and/or container according to local, regional, state, and national/international regulations.
- **Packaging waste**
- **Recommendation:** Dispose of packaging or container according to local, regional, state, and national/international regulations.

**\* Section 14. Transport Information**

	<b>UN number</b>	<b>UN proper shipping name</b>	<b>Transport hazard class(es)</b>	<b>Packing group</b>	<b>Environmental hazards</b>
<b>DOT</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>TDG</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>IMO/IMDG</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>ADN</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>ADR/RID</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>IATA/ICAO</b>	NDA	Not Regulated	NDA	NDA	NDA

- **Special precautions for user**  
None known.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
None known.

**\* Section 15. Regulatory Information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **SARA Hazard Classifications:** None

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## Canada

- Labor**

• Canada - WHMIS - Classifications of Substances: Not Listed

• Canada - WHMIS - Ingredient Disclosure List: Not Listed

- Environment**

• Canada - CEPA - Priority Substances List: Not Listed

## United States

- Labor**

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals: Not Listed

- Environment**

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants: Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities: Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable : Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs: Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs: Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting: Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical: Not Listed

## United States - California

- Environment**

U.S. - California - Proposition 65 - Carcinogens List: Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity: Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MAD): Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL): Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female: Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male: Not Listed

## United States - Pennsylvania

- Labor**

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List: Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances: Not Listed

**Chemical Safety Assessment:** Chemical Safety Assessment is not required.

## \* Section 16. Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation/ last revision** 23/1/2015

### Abbreviations and acronyms

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organization

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*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

*End of SDS*

**\* Section 1. Identification**

**Product identifier:** *Uncured EPDM Flashing with Tape*

- **Trade name:** *Royal Edge Uncured Flashing with Tape, Re-Flex Uncured Flashing with Tape*
- **Relevant identified uses of the substance or mixture:** *Construction*

**Details of the supplier of the safety data sheet Manufacturer/Supplier**

*Roofing Products International, Inc.*

*57460 Dewitt St.*

*Elkhart, IN 46517-1078*

*Telephone: 1-574-293-9096*

*Information Department: Technical Services Department*

**Emergency telephone number**

*Chemtrec United States 1(800) 424-9300 International 703-527-3887*

**\* Section 2. Hazard(s) Identification**

**EU/EEC**

*According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)*

**Classification of the substance or mixture**

- **CLP** *Skin Irritation 2 - H315 Skin  
Sensitization 1 - H317*
- **DSD/DPD** *Irritant (Xi)  
Sensitizer  
R38, R43*

**Label Elements**

- **CLP**

**WARNING**



**Hazard statements**

*H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction*

**Precautionary statements**

- **Prevention** *P261 - Avoid breathing dust/fume.  
P264 - Wash thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.*
- **Response** *P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P321 - Specific treatment, see supplemental first aid information.  
P362 - Take off contaminated clothing and wash before reuse.*
- **Storage/Disposal** *P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.*

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- **DSD/DPD**



- **Risk phrases**

R38 - Irritating to skin.  
R43 - May cause sensitisation by skin contact.

- **Safety phrases**

S24 - Avoid contact with skin.  
S37 - Wear suitable gloves.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### Other Hazards

- **CLP** According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- **DSD/DPD** According to European Directive 1999/45/EC this preparation is considered dangerous.

### United States (US)

- According to OSHA 29 CFR 1910.1200 HCS

### Classification of the substance or mixture

- **OSHA HCS 2012** Skin Irritation 2 - H315  
Skin Sensitization 1A - H317

### Label elements

- **OSHA HCS 2012**

## WARNING



### Hazard statements

Causes skin irritation - H315  
May cause an allergic skin reaction - H317

### Precautionary statements

- **Prevention** Avoid breathing dust/fume. - P261  
Wash thoroughly after handling. - P264  
Contaminated work clothing should not be allowed out of the workplace.- P272  
Wear protective gloves/protective clothing/eye protection/face protection.- P280
- **Response** If skin irritation occurs: Get medical advice/attention. - P332+P313  
IF ON SKIN: Wash with plenty of soap and water. - P302+P352  
Specific treatment, see supplemental first aid information. - P321  
If skin irritation or rash occurs: Get medical advice/attention. - P333+P313  
Take off contaminated clothing and wash before reuse. - P362
- **Storage/Disposal** Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

### Other hazards

- **OSHA HCS 2012** Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

### Canada

- According to WHMIS

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## Classification of the substance or mixture

- **WHMIS** Other Toxic Effects - D2B

## Label elements

- **WHMIS** Other Toxic Effects - D2B



## Other hazards

- **WHMIS** In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).  
See Section 12 for Ecological Information.

## \* Section 3. Composition/Information on Ingredients

### Substances

Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008

Mixtures		Composition			
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Resin	NDA	4% TO 13%	NDA	<b>EU DSD/DPD:</b> Self Classified: Xi R36/37/38 <b>EU CLP:</b> Self Classified: Eye Irrit. 2A, H319; Skin Irrit. 2, H315; STOT SE 3 - Resp., H335 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; STOT SE 3 - Resp.	NDA
Talc	CAS:14807-96-6 EC Number:238-877-9	0% TO 6%	NDA	<b>EU DSD/DPD:</b> Self Classified: Xn R48/20 <b>EU CLP:</b> Self Classified: STOT RE 1, H372 <b>OSHA HCS 2012:</b> STOT RE 1 (Lungs)	NDA
Calcium oxide	CAS:1305-78-8 EC Number:215-138-9	1% TO 5%	NDA	<b>EU DSD/DPD:</b> Self Classified: C R34 <b>EU CLP:</b> Self Classified: Skin Corr. 1C, H314; Eye Dam. 1, H318 <b>OSHA HCS 2012:</b> Skin Corr. 1C; Eye Dam. 1	NDA
Phenol, p-(1,1,3,3-tetramethylbutyl)-	CAS:140-66-9 EINECS:205-426-2	2% TO 4%	Skin-Rabbit LD50 1880 mg/kg Ingestion/Oral Rat LD50 > 2000 mg/kg	<b>EU DSD/DPD:</b> Annex I: Xi R38-41; N R50-53 <b>EU CLP:</b> Annex VI: Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; Repr. 2	NDA
Mineral oil, petroleum distillates, hydro-treated (mild) heavy naphthenic	CAS:64742-52-5 EC Number:265-155-0	0% To 4%	NDA	<b>EU DSD/DPD:</b> Annex I: Carc. 2; R45 <b>EU CLP:</b> Annex VI: Carc. 1B, H350 <b>OSHA HCS 2012:</b> Skin Irrit. 2	NDA
Carbon Black	CAS: 1333-86-4 ECNumber: 215- 609-9	1% To 4%	Skin-Rabbit LD50 >3 g/kg Ingestion/Oral-Rat LD50 >15400 mg/kg	<b>EU DSD/DPD:</b> None <b>EU CLP:</b> None <b>OSHA HCS 2012:</b> Carc. 2	NDA

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Zinc oxide	<b>CAS:</b> 1314-13-2 <b>EC Number:</b> 215- 222-5	0.5% To 2.5%	NDA	<b>EU DSD/DPD:</b> Annex I: N; R50-53 <b>EU CLP:</b> Annex VI: Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2B	NDA
p-Benzoquinone, 2,3,5,6-tetrachloro-	<b>CAS:</b> 118-75-2 <b>EC Number:</b> 204-274-4	0% To 1.5%	Ingestion/Oral-Rat LD50 • 4 g/kg	<b>EU DSD/DPD:</b> Annex I: Xi R36/38 N R50-53 <b>EU CLP:</b> Annex VI: Eye Irrit. 2, H319; Skin Irrit. 2, H315; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; STOT RE 3: Resp. Irrit. & Narc.; Acute Tox. 4 (Inhl)	NDA
TMDS	<b>CAS:</b> 137-26-8 <b>EC Number:</b> 205-286-2	0% To 1%	Ingestion/Oral-Rat LD50 • 560 mg/kg  Inhalation-Rat LC50 500 mg/m <sup>3</sup> 4 Hour(s)	<b>EU DSD/DPD:</b> Annex I: Xn R20/22 - 48/22 Xi R36/38; R43 N R50-53 <b>EU CLP:</b> Annex VI: Acute Tox. 4, H332; Acute Tox. 4, H302; STOT RE 2, H373; Eye Irrit. 2, H319; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1A; Acute Tox. 4 (Oral); Acute Tox. 2 (Inhl)	NDA
MBTS	<b>CAS:</b> 120-78-5 <b>EC Number:</b> 204-424-9	0% To 1%	Ingestion/Oral-Rat LD50 >12 g/kg  Skin-Rabbit LD50 >7940 mg/kg	<b>EU DSD/DPD:</b> Annex I: R31 R43 N; R50-53 <b>EU CLP:</b> Annex VI: Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Skin Sens. 1A	NDA

Refer to Section 11 for Toxicological Information.

## \* Section 4. First-Aid Measures

- **Inhalation** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- **Skin** Remove material from skin with waterless hand cleaners followed by washing with soap and water. If signs/symptoms develop, get medical attention.
- **Eye** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- **Ingestion** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

### Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

### Indication of any immediate medical attention and special treatment needed

- **Note to physician**  
All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

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## \* Section 5. Fire-Fighting Measures

### Extinguishing media

- **Suitable Extinguishing Media:** Water, foam, dry chemical, carbon dioxide (CO<sub>2</sub>).
- **Unsuitable Extinguishing Media:** None known.

### Special hazards arising from the substance or mixture

- **Unusual Fire and Explosion Hazards:** Material releases toxic and corrosive gases/vapors when burned.
- **Hazardous Combustion Products:** Nitrous oxides, sulfur oxides, carbon oxides.

### Advice for firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

## \* Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

- **Personal Precautions** *No special precautions expected to be necessary if material is used under ordinary conditions as recommended.*
- **Emergency Procedures** *No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures.*

### Environmental precautions

*No special precautions necessary.*

### Methods and material for containment and cleaning up

- **Containment/Clean-up Measures:**  
*Pick up pieces and place in container or bag for disposal.*

### Reference to other sections

*Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.*

## \* Section 7. Handling and Storage

### Precautions for safe handling

- **Handling**  
*Do not handle at temperatures in excess of 130° F. Avoid prolonged or repeated contact with the skin. Use good safety and industrial hygiene practices. Product readily removed from the skin with waterless hand cleaners followed by washing with soap and water.*

### Conditions for safe storage, including any incompatibilities

- **Storage**  
*Store in a cool, dry place. Do not store at temperatures in excess of 130° F.*
- **Specific end uses**  
*Refer to Section 1.2 - Relevant identified uses.*

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## \* Section 8. Exposure Controls/Personal Protection

### Exposure Limits/Guidelines

	Result	ACGIH	Belgium	Canada Alberta	Canada British Columbia	Canada Manitoba
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	Not Established	1 ppm Ceiling; 1.3 mg/m <sup>3</sup> Ceiling	1 ppm Ceiling	0.3 ppm Ceiling
	TWAs	Not Established	Not Established	207 rro "VY C" 2Q "b i b 5" VY C	0.3 ppm TWA	Not established
TMDS *359/48/: +	TWAs	207 " o i b 5" VY C" *pj cxdg" hcevkp" cpf "xcrqt +	207 "b i b 5" VY C" *cgt quqncpf "xcrqt +" 2027 "rro "VY C" *cgt quqncpf "xcrqt +	3 "b i b 5" VY C	3 "b i b 5" VY C	207 "b i b 5" VY C" *pj cxdg/hcevkp cpf "xcrqt +
Talc *36: 29/; 8/8+	TWAs	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA *gur kt cdg particulate)	2 mg/m <sup>3</sup> TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate)	2 mg/m <sup>3</sup> TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)
3/Rt qrgpg. "4/ methyl- *337/33/9+	TWAs	472 "rro "VY C" *kagf "wpf gt "Dwpggu "cm" kuo gt u+	472 "rro "VY C" 7: 5 "b i b 5" VY C	Not Established	Not Established	472 "rro "VY C" *kagf "wpf gt Dwpggu "cmkuo gt u+
ENB (16219-75-3)	Ceilings	5 ppm Ceiling	Not Established	5 ppm Ceiling; 25 mg/m	5 ppm ceiling	5 ppm Ceiling
Sulfur (7704-34-9)	TWAs	Not established	Not established	10 mg/m <sup>3</sup> TWA	Not established	Not established
Zinc oxide (1314-13-2)	STELs	10 mg/m <sup>3</sup> STEL (respirable fraction)	10 mg/m <sup>3</sup> STEL (fume)	10 mg/m <sup>3</sup> STEL (respirable)	10 mg/m <sup>3</sup> STEL (respirable)	10 mg/m <sup>3</sup> STEL (respirable fraction)
	TWAs	2 mg/m <sup>3</sup> TWA (respirable fraction)	0 mg/m <sup>3</sup> TWA (dust); 5 mg/m <sup>3</sup> TWA (fume)	2 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable fraction)
Carbon Black (1333-86-4)	TWAs	3 mg/m <sup>3</sup> TWA (inhalable fraction)	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA	3 mg/m <sup>3</sup> TWA (inhalable)	3 mg/m <sup>3</sup> TWA (inhalable fraction)

### Exposure Limits/Guidelines Continued

	Result	Canada New Brunswick	Canada Nunavut	Canada Nova Scotia	Canada Northwest Territories	Canada Ontario
Formaldehyde (50-00-0)	STELs	1.5 ppm STEL	Not established	Not established	Not established	1.0 ppm STEL
	TWAs	0.5 ppm TWA	Not established	Not established	Not established	Not established
	Ceilings	Not established	2 ppm Ceiling; 2.4 mg/m <sup>3</sup> Ceiling	0.3 ppm Ceiling	2 ppm Ceiling; 2.4 mg/m <sup>3</sup> Ceiling	1.5 ppm Ceiling
TMDS (137-26-8)	TWAs	1 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	0.05 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)	5 mg/m <sup>3</sup> TWA	0.05 mg/m <sup>3</sup> TWA (inhalable fraction and vapor, listed under Thiram)
	STELs	Not established	10 mg/m <sup>3</sup> STEL	Not established	10 mg/m <sup>3</sup> STEL	Not established

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Talc (14807-96-6)	TWAs	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (containing no Asbestos and <1% Crystalline silica, respirable)
1-Propene, 2-methyl- (115-11-7)	TWAs	Not established	Not established	250 ppm TWA (listed under Butenes, all isomers)	Not established	250 ppm TWA (listed under Butenes, all isomers)
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (fume)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)
	TWAs	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, dust); 5 mg/m3 TWA (fume)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable fraction)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3 mg/m3 TWA (inhalable fraction)	3.5 mg/m3 TWA	3.5 mg/m3 TWA
	STELs	Not established	7 mg/m3 STEL	Not established	7 mg/m3 STEL	Not established
<b>Exposure Limits/Guidelines Continued</b>						
Formaldehyde (50-00-0)	<b>Result</b>	<b>Canada Quebec</b>	<b>Canada Saskatchewan</b>	<b>Canada Yukon</b>	<b>NIOSH</b>	<b>OSHA</b>
	STELs	Not established	Not established	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	Ceilings	2 ppm Ceiling; 3 mg/m3 Ceiling	Not established	2 ppm Ceiling; 3 mg/m3 Ceiling	0.1 ppm Ceiling (15 min)	Not established
	TWAs	Not established	Not established	Not established	0.016 ppm TWA	0.75 ppm TWA
TMDS (137-26-8)	TWAs	5 mg/m3 TWAEV	1 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA
	STELs	Not established	Not established	10 mg/m3 STEL	Not established	Not established
	Ceiling	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
Talc (14807-96-6)	TWAs	3 mg/m3 TWAEV (respirable dust)	2 mg/m3 TWA (respirable fraction)	20 mppcf TWA	2 mg/m3 TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established
Isoprene (78-79-5)	Ceilings	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established

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Zinc oxide (1314-13-2)	TWAs	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)	2 mg/m3 TWA (dust and fume, respirable fraction)	5 mg/m3 TWA (fume); 30 mppcf TWA (dust); 10 mg/m3 TWA (dust)	5 mg/m3 TWA dust and fume)	5 mg/m TWA (fume); 15 mg/m TWA total dust); 5 mg/m TWA (respirable fraction)
	STELs	10 mg/m3 STEV (fume)	Not established	10 mg/m3 STEL (fume); 20 mg/m3 STEL (dust)	10 mg/m3 STEL (fume)	Not established
	Ceilings	Not established	Not established	Not established	15 mg/m Ceiling dust)	Not established
	MAKs	Not established	Not established	Not established	Not established	1 mg/m3 TWA MAK (fume, respirable fraction)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWAEV	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)	3.5 mg/m3 TWA
		Not established	Not established	7 mg/m3 STEL		

### Exposure controls

- **Engineering Measures/Controls**      Under normal conditions of use, special ventilation is not required.
  - **Personal Protective Equipment**
  
  - **Respiratory**                                      No respiratory protection is required under normal conditions of use.
  - **Eye/Face**    Under normal conditions of use, eye protection is not required.
  - **Skin/Body**    Wear appropriate gloves.
- Follow best practice for site cleanup and disposal of waste.

### Environmental Exposure Controls

**Key to abbreviations**

ACGIH = American Conference of Governmental Industrial Hygiene  
 NIOSH = National Institute of Occupational Safety and Health  
 OSHA = Occupational Safety and Health Administration  
 STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value  
 TWAEV = Time-Weighted Average Exposure Value  
 Time-Weighted Averages are based on 8h/day, 40h/week TWA exposures

## \* Section 9. Physical and Chemical Properties

### Information on Physical and Chemical Properties

Material Description	
Physical Form	Solid
Color	Black
Odor Threshold	None
Appearance/Description	Black solid (EPDM) laminated to tape. No odor.
Odor	None

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## General Properties

<b>Boiling Point</b>	Not relevant	<b>Melting Point</b>	Data lacking
<b>Decomposition Temperature</b>	Data lacking	<b>pH</b>	Not relevant
<b>Specific Gravity/Relative Density</b>	0.97 Water=1	<b>Water Solubility</b>	Negligible < 0.1 %
<b>Viscosity</b>	Not relevant	<b>Explosive Properties</b>	Not relevant.
<b>Oxidizing Properties</b>	Not relevant.		

## Volatility

<b>Vapor Pressure</b>	Not relevant	<b>Vapor Density</b>	Not relevant
<b>Evaporation Rate</b>	Not relevant	<b>Volatiles (Vol.)</b>	0.7 %

## Flammability

<b>Flash Point</b>	> 200 C(> 392 F)	<b>UEL</b>	Not relevant
<b>LEL</b>	Not relevant	<b>Autoignition</b>	Not relevant
<b>Flammability (solid, gas)</b>	Not flammable.		

## Environmental

<b>Octanol/Water Partition coefficient</b>	Data lacking
--	--------------

## Other Information

No additional physical and chemical parameters noted.

## \* Section 10. Stability and Reactivity

### Reactivity

- **Chemical stability**  
No dangerous reaction known under conditions of normal use.
- **Possibility of hazardous reactions**  
Stable under normal temperatures and pressures. Hazardous polymerization will not occur.
- **Conditions to avoid**  
Temperatures in excess of 130° F.
- **Incompatible materials**  
No data available.
- **Hazardous decomposition products**  
Thermal decomposition could produce CO, CO<sub>2</sub>, and Oxides of Nitrogen.

## \* Section 11. Toxicological Information

Component Name	CAS	Data
Phenol, p-(1,1,3,3-tetramethylbutyl)- (2% TO 4%)	140-66-9	<b>Acute Toxicity:</b> orl-rat LD50:4600 mg/kg; skn-rbt LD50:1880 mg/kg; <b>Irritation:</b> eye-rbt 50 ug/24H SEV; skn-rbt 20 mg/24H MOD; <b>Reproductive:</b> orl-mus TDLo:2.4 mg/kg (10-21D preg/12D post); orl-mus TDLo:14000 ng/kg (11-17D preg); orl-rat TDLo:250.4 mg/kg (0-8D preg)
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic (0% TO 4%)	64742-52-5	<b>Irritation:</b> skn-rbt 500 mg SEV
Carbon Black (1% TO 4%)	1333-86-4	<b>Acute Toxicity:</b> orl-rat LD50:>15400 mg/kg; skn-rbt LD50:>3 gm/kg; <b>Tumorigen/Carcinogen:</b> ihl-rat TCLo:11600 ug/m <sup>3</sup> /18H/2Y-1

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Component Name	CAS	Data
Talc (0% TO 6%)	14807-96-6	<b>Irritation:</b> skn-hmn 300 ug/3D-I MLD; <b>Tumorigen/Carcinogen:</b> ihl-rat TC :11 mg/m3/1Y-1
Zinc oxide (0.5% TO 2.5%)	1314-13-2	<b>Irritation:</b> eye-rbt 500 mg/24H MLD; skn-rbt 500 mg/24H MLD; <b>Reproductive:</b> orl-rat TDLo:6846 mg/kg (1-22D preg)
MBTS (0% TO 1%)	120-78-5	<b>Acute Toxicity:</b> orl-rat LD50:>12 gm/kg; skn-rbt LD50:>7940 mg/kg
p-Benzoquinone, 2,3,5,6-tetrachloro- (0% TO 1.5%)	118-75-2	<b>Acute Toxicity:</b> orl-rat LD50:4 gm/kg; ihl-rat LC50:2485 mg/m3/4H
TMDS (0% TO 1%)	137-26-8	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 560 mg/kg; ihl-rat LC50:500 mg/m3/4H; <b>Irritation:</b> eye-rbt 100 mg/24H MOD; <b>Reproductive:</b> orl-rat TDLo:300 mg/kg (15D preg); <b>Tumorigen/Carcinogen:</b> orl-rat TDLo:108 mg/kg/1Y-C

GHS Properties	Classification
<b>Acute toxicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Aspiration Hazard</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Carcinogenicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Germ Cell Mutagenicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Skin corrosion/Irritation</b>	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
<b>Skin sensitization</b>	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1A
<b>STOT-RE</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>STOT-SE</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Toxicity for Reproduction</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Respiratory sensitization</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Serious eye damage/Irritation</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

### Potential Health Effects Inhalation

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

### Skin

- **Acute (Immediate)** Causes skin irritation. May cause an allergic skin reaction. Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**

### Eye

- **Acute (Immediate)** Direct contact with tape may cause mechanical irritation.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

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## Ingestion

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

## Carcinogenic Effects

Although this material does contain several components that are either carcinogens or potential carcinogens the material as a whole is not classified as a carcinogen according to regulatory guidelines. The carbon black is encapsulated within the matrix of this material and no exposure is expected. The isoprene and formaldehyde components are both in this material at low enough concentrations that this material is not classified as a carcinogen per agency guidelines.

### Carcinogenic Effects

	CAS	OSHA	IARC	NTP
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Isoprene	78-79-5	Not Listed	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen
Carbon Black	1333-86-4	Not Listed	Group 2B-Possible Carcinogen	Not Listed

#### Key to abbreviations

- LC = Lethal Concentration
- LD = Lethal Dose
- MLD = Mild
- MOD = Moderate
- SEV = Severe
- TC = Toxic Concentration
- TD = Toxic Dose

## \* Section 12. Ecological Information

### Toxicity

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

### Behavior in environmental systems

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

### Ecotoxicological effects

- **Remark:** No further relevant information available.

### Additional ecological information

**General notes:** At present there are no ecotoxicological assessments.

### Results of PBT and vPvB

- **assessment PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

## \* Section 13. Disposal Considerations

### Waste treatment methods

- **Product waste handling**
- **Recommendation:** Dispose of waste product and/or container according to local, regional, state, and national/international regulations.
- **Packaging waste handling**
- **Recommendation:** Dispose of packaging or container according to local, regional, state, and national/international regulations.

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## \* Section 14. Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
<i>DOT</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>TDG</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>IMO/IMDG</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>ADN</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>ADR/RID</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>IATA/ICAO</i>	NDA	Not Regulated	NDA	NDA	NDA

- **Special precautions for user**  
None known.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not Relevant.

## \* Section 15. Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**SARA Hazard Classifications**      *Acute*

State Right To Know				
Component	CAS	MA	NJ	PA
<i>1-Propene, 2-methyl-</i>	115-11-7	Yes	Yes	Yes
<i>ENB</i>	16219-75-3	Yes	Yes	Yes
<i>MBTS</i>	120-78-5	No	No	No
<i>Calcium oxide</i>	1305-78-8	Yes	Yes	Yes
<i>Carbon Black</i>	1333-86-4	Yes	Yes	Yes
<i>TMDS</i>	137-26-8	Yes	Yes	Yes
<i>Ethylene propylene diene rubber</i>	25038-36-2	No	No	No
<i>Formaldehyde</i>	50-00-0	Yes	Yes	Yes
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	64742-52-5	No	No	No
<i>Isobutylene-Isoprene polymer</i>	9010-85-9	No	No	No
<i>Isoprene</i>	78-79-5	Yes	Yes	Yes
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	118-75-2	No	No	No
<i>Phenol, 4-methyl</i>	68610-51-5	No	No	No
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	140-66-9	No	No	No
<i>Polybutene</i>	9003-29-6	No	No	No
<i>Sulfur</i>	7704-34-9	Yes	Yes	Yes
<i>Talc</i>	14807-96-6	Yes	Yes	Yes
<i>Zinc oxide</i>	1314-13-2	Yes	Yes	Yes

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<b>Inventory</b>				
<b>Component</b>	<b>CAS</b>	<b>Canada DSL</b>	<b>Canada NDSL</b>	
<i>1-Propene, 2-methyl-</i>	115-11-7	Yes	No	
<i>ENB</i>	16219-75-3	No	Yes	
<i>MBTS</i>	120-78-5	Yes	No	
<i>Calcium oxide</i>	1305-78-8	Yes	No	
<i>Carbon Black</i>	1333-86-4	Yes	No	
<i>TMDS</i>	137-26-8	Yes	No	
<i>Ethylene propylene diene rubber</i>	25038-36-2	Yes	No	
<i>Formaldehyde</i>	50-00-0	Yes	No	
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	64742-52-5	Yes	No	
<i>Isobutylene-Isoprene polymer</i>	9010-85-9	Yes	No	
<i>Isoprene</i>	78-79-5	Yes	No	
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	118-75-2	Yes	No	
<i>Phenol, 4-methyl</i>	68610-51-5	Yes	No	
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	140-66-9	Yes	No	
<i>Polybutene</i>	9003-29-6	Yes	No	
<i>Sulfur</i>	7704-34-9	Yes	No	
<i>Talc</i>	14807-96-6	Yes	No	
<i>Zinc oxide</i>	1314-13-2	Yes	No	

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

• <i>Phenol, 4-methyl</i>	68610-51-5	Not Listed
• <i>Isobutylene-Isoprene polymer</i>	9010-85-9	Not Listed
• <i>Isoprene</i>	78-79-5	Not Listed
• <i>1-Propene, 2-methyl-</i>	115-11-7	Not Listed
• <i>MBTS</i>	120-78-5	Not Listed
• <i>Ethylene propylene diene rubber</i>	25038-36-2	Not Listed
• <i>TMDS</i>	137-26-8	Not Listed
• <i>Formaldehyde</i>	50-00-0	Not Listed
• <i>Calcium oxide</i>	1305-78-8	E
• <i>Carbon Black</i>	1333-86-4	<p><i>D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Carbon Black, non-respirable on Health Canada's WHMIS Division website.) D2A Uncontrolled product according to WHMIS classification criteria</i></p>

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<i>Talc</i>	14807-96-6	<i>D2A</i>
<i>Zinc oxide</i>	1314-13-2	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Zinc oxide as Zinc compounds</i>		<i>Not Listed</i>
<i>Polybutene</i>	9003-29-6	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Sulfur</i>	7704-34-9	<i>B4</i>
<i>ENB</i>	16219-75-3	<i>B2, D1A, D2B</i>
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	118-75-2	<i>Not Listed</i>
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	140-66-9	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	64742-52-5	<i>Not Listed</i>

## Canada

### WHMIS - Ingredient Disclosure List

<i>Phenol, 4-methyl</i>	68610-51-5	<i>Not Listed</i>
<i>Isobutylene-Isoprene polymer</i>	9010-85-9	<i>Not Listed</i>
<i>Isoprene</i>	78-79-5	<i>1 %</i>
<i>1-Propene, 2-methyl-</i>	115-11-7	<i>Not Listed</i>
<i>MBTS</i>	120-78-5	<i>1 %</i>
<i>Ethylene propylene diene rubber</i>	25038-36-2	<i>Not Listed</i>
<i>TMDS</i>	137-26-8	<i>1 %</i>
<i>Formaldehyde</i>	50-00-0	<i>0.1 %</i>
<i>Calcium oxide</i>	1305-78-8	<i>1 %</i>
<i>Carbon Black</i>	1333-86-4	<i>1 %</i>
<i>Talc</i>	14807-96-6	<i>Not Listed</i>
<i>Zinc oxide</i>	1314-13-2	<i>1 %</i>
<i>Zinc oxide as Zinc compounds</i>		<i>Not Listed</i>
<i>Polybutene</i>	9003-29-6	<i>Not Listed</i>
<i>Sulfur</i>	7704-34-9	<i>Not Listed</i>
<i>ENB</i>	16219-75-3	<i>1 %</i>
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	118-75-2	<i>Not Listed</i>
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	140-66-9	<i>Not Listed</i>
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	64742-52-5	<i>Not Listed</i>

## Environment

### Canada - CEPA - Priority Substances List

<i>Phenol, 4-methyl</i>	68610-51-5	<i>Not Listed</i>
<i>Isobutylene-Isoprene polymer</i>	9010-85-9	<i>Not Listed</i>
<i>Isoprene</i>	78-79-5	<i>Not Listed</i>
<i>1-Propene, 2-methyl-</i>	115-11-7	<i>Not Listed</i>
<i>MBTS</i>	120-78-5	<i>Not Listed</i>
<i>Ethylene propylene diene rubber</i>	25038-36-2	<i>Not Listed</i>
<i>TMDS</i>	137-26-8	<i>Not Listed</i>
<i>Formaldehyde</i>	50-00-0	<b>Priority Substance List 2 (substance considered toxic)</b>

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Calcium oxide	1305-78-8	Not Listed
Carbon Black	1333-86-4	Not Listed
Talc	14807-96-6	Not Listed
Zinc oxide	1314-13-2	Not Listed
Zinc oxide as Zinc compounds		Not Listed
Polybutene	9003-29-6	Not Listed
Sulfur	7704-34-9	Not Listed
ENB	16219-75-3	Not Listed
p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

**United States**

**Labor**

**U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	1000 lb TQ
• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

**U.S. - OSHA - Specifically Regulated Chemicals**

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed

• Formaldehyde	50-00-0	2 ppm STEL (Irritant and potential cancer hazard, See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level ; 0.75 ppm TWA
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• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

**Environment**

**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed

U.S. - California - Proposition 65 - Carcinogens List: Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity: Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MAD): Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL): Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female: Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male: Not Listed

**United States - Pennsylvania**

**Labor**

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List: Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances: Not Listed

**Chemical Safety Assessment:** Chemical Safety Assessment is not required.

\* **Section 16. Other Information**

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation/ last revision** 03/21/2007

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## **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

End of SDS

**\* Section 1. Identification**

**Product identifier:** Cured Cover Tape

- **Trade name:** Royal Edge Cured Cover Strip with Tape, Re-Flex EPDM Cured Cover Tape
- **Relevant identified uses of the substance or mixture:** Construction

**Details of the supplier of the safety data sheet Manufacturer/Supplier**

Roofing Products International, Inc.

57460 Dewitt St.

Elkhart, IN 46517-1078

Telephone: 1-574-293-9096

Information Department: Technical Services Department

**Emergency telephone number**

Chemtrec United States 1(800) 424-9300 International 703-527-3887

**\* Section 2. Hazard(s) Identification**

**EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

**Classification of the substance or mixture**

- **CLP** Skin Irritation 2 - H315 Skin  
Sensitization 1 - H317
- **DSD/DPD** Irritant (Xi)  
Sensitizer  
R38, R43

**Label Elements**

- **CLP**

**WARNING**



**Hazard statements**

H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction

**Precautionary statements**

- **Prevention** P261 - Avoid breathing dust/fume.  
P264 - Wash thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- **Response** P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P321 - Specific treatment, see supplemental first aid information.  
P362 - Take off contaminated clothing and wash before reuse.
- **Storage/Disposal** P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

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- **DSD/DPD**



- **Risk phrases**

R38 - Irritating to skin.  
R43 - May cause sensitisation by skin contact.

- **Safety phrases**

S24 - Avoid contact with skin.  
S37 - Wear suitable gloves.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Other Hazards**

- **CLP** According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- **DSD/DPD** According to European Directive 1999/45/EC this preparation is considered dangerous.

**United States (US)**

- According to OSHA 29 CFR 1910.1200 HCS

**Classification of the substance or mixture**

- **OSHA HCS 2012** Skin Irritation 2 - H315  
Skin Sensitization 1A - H317

**Label elements**

- **OSHA HCS 2012**

**WARNING**



**Hazard statements**

Causes skin irritation - H315  
May cause an allergic skin reaction - H317

**Precautionary statements**

- **Prevention** Avoid breathing dust/fume. - P261  
Wash thoroughly after handling. - P264  
Contaminated work clothing should not be allowed out of the workplace.- P272  
Wear protective gloves/protective clothing/eye protection/face protection.- P280
- **Response** If skin irritation occurs: Get medical advice/attention. - P332+P313  
IF ON SKIN: Wash with plenty of soap and water. - P302+P352  
Specific treatment, see supplemental first aid information. - P321  
If skin irritation or rash occurs: Get medical advice/attention. - P333+P313  
Take off contaminated clothing and wash before reuse. - P362
- **Storage/Disposal** Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

**Other hazards**

- **OSHA HCS 2012** Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

**Canada**

- According to WHMIS

**Classification of the substance or mixture**

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- **WHMIS** Other Toxic Effects - D2B

## Label elements

- **WHMIS** Other Toxic Effects - D2B



## Other hazards

- **WHMIS** In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

## \* Section 3. Composition/Information on Ingredients

### Substances

Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

Mixtures		Composition			
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Resin	NDA	4% TO 13%	NDA	<b>EU DSD/DPD:</b> Self Classified: Xi R36/37/38 <b>EU CLP:</b> Self Classified: Eye Irrit. 2A, H319; Skin Irrit. 2, H315; STOT SE 3 - Resp., H335 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; STOT SE 3 - Resp.	NDA
Talc	CAS:14807-96-6 EC Number:238-877-9	0% TO 6%	NDA	<b>EU DSD/DPD:</b> Self Classified: Xn R48/20 <b>EU CLP:</b> Self Classified: STOT RE 1, H372 <b>OSHA HCS 2012:</b> STOT RE 1 (Lungs)	NDA
Calcium oxide	CAS:1305-78-8 EC Number:215-138-9	1% TO 5%	NDA	<b>EU DSD/DPD:</b> Self Classified: C R34 <b>EU CLP:</b> Self Classified: Skin Corr. 1C, H314; Eye Dam. 1, H318 <b>OSHA HCS 2012:</b> Skin Corr. 1C; Eye Dam. 1	NDA
Phenol, p-(1,1,3,3-tetramethylbutyl)-	CAS:140-66-9 EINECS:205-426-2	2% TO 4%	Skin-Rabbit LD50 1880 mg/kg Ingestion/Oral Rat LD50 > 2000 mg/kg	<b>EU DSD/DPD:</b> Annex I: Xi R38-41; N R50-53 <b>EU CLP:</b> Annex VI: Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; Repr. 2	NDA
Mineral oil, petroleum distillates, hydro-treated (mild) heavy naphthenic	CAS:64742-52-5 EC Number:265-155-0	0% To 4%	NDA	<b>EU DSD/DPD:</b> Annex I: Carc. 2; R45 <b>EU CLP:</b> Annex VI: Carc. 1B, H350 <b>OSHA HCS 2012:</b> Skin Irrit. 2	NDA
Carbon Black	CAS: 1333-86-4 ECNumber: 215- 609-9	1% To 4%	Skin-Rabbit LD50 >3 g/kg Ingestion/Oral-Rat LD50 >15400 mg/kg	<b>EU DSD/DPD:</b> None <b>EU CLP:</b> None <b>OSHA HCS 2012:</b> Carc. 2	NDA

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Zinc oxide	<b>CAS:</b> 1314-13-2 <b>EC Number:</b> 215- 222-5	0.5% To 2.5%	NDA	<b>EU DSD/DPD:</b> Annex I: N; R50-53 <b>EU CLP:</b> Annex VI: Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2B	NDA
p-Benzoquinone, 2,3,5,6-tetrachloro-	<b>CAS:</b> 118-75-2 <b>EC Number:</b> 204-274-4	0% To 1.5%	Ingestion/Oral-Rat LD50 • 4 g/kg	<b>EU DSD/DPD:</b> Annex I: Xi R36/38 N R50-53 <b>EU CLP:</b> Annex VI: Eye Irrit. 2, H319; Skin Irrit. 2, H315; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; STOT RE 3: Resp. Irrit. & Narc.; Acute Tox. 4 (Inhl)	NDA
TMDS	<b>CAS:</b> 137-26-8 <b>EC Number:</b> 205-286-2	0% To 1%	Ingestion/Oral-Rat LD50 • 560 mg/kg  Inhalation-Rat LC50 500 mg/m <sup>3</sup> 4 Hour(s)	<b>EU DSD/DPD:</b> Annex I: Xn R20/22 - 48/22 Xi R36/38; R43 N R50-53 <b>EU CLP:</b> Annex VI: Acute Tox. 4, H332; Acute Tox. 4, H302; STOT RE 2, H373; Eye Irrit. 2, H319; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1A; Acute Tox. 4 (Oral); Acute Tox. 2 (Inhl)	NDA
MBTS	<b>CAS:</b> 120-78-5 <b>EC Number:</b> 204-424-9	0% To 1%	Ingestion/Oral-Rat LD50 >12 g/kg  Skin-Rabbit LD50 >7940 mg/kg	<b>EU DSD/DPD:</b> Annex I: R31 R43 N; R50-53 <b>EU CLP:</b> Annex VI: Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Skin Sens. 1A	NDA

Refer to Section 11 for Toxicological Information.

## \* Section 4. First-Aid Measures

- **Inhalation** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- **Skin** Remove material from skin with waterless hand cleaners followed by washing with soap and water. If signs/symptoms develop, get medical attention.
- **Eye** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- **Ingestion** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

### Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

### Indication of any immediate medical attention and special treatment needed

- **Note to physician**  
All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

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• **Tradename:** Royal Edge Cured Cover Strip with Tape, Re-Flex EPDM Cover Tape

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\* **Section 5. Fire-Fighting Measures**

**Extinguishing media**

- **Suitable Extinguishing Media:** Water, foam, dry chemical, carbon dioxide (CO2).
- **Unsuitable Extinguishing Media:** None known.

**Special hazards arising from the substance or mixture**

- **Unusual Fire and Explosion Hazards:** Material releases toxic and corrosive gases/vapors when burned.
- **Hazardous Combustion Products:** Nitrous oxides, sulfur oxides, carbon oxides.

**Advice for firefighters**

*Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.*

\* **Section 6. Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures**

- **Personal Precautions** *No special precautions expected to be necessary if material is used under ordinary conditions as recommended.*
- **Emergency Procedures** *No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures.*

**Environmental precautions**

*No special precautions necessary.*

**Methods and material for containment and cleaning up**

- **Containment/Clean-up Measures** *Pick up pieces and place in container or bag for disposal.*

**Reference to other sections**

*Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.*

\* **Section 7. Handling and Storage**

**Precautions for safe handling**

- **Handling**  
*Do not handle at temperatures in excess of 130° F. Avoid prolonged or repeated contact with the skin. Use good safety and industrial hygiene practices. Product readily removed from the skin with waterless hand cleaners followed by washing with soap and water.*

**Conditions for safe storage, including any incompatibilities**

- **Storage**  
*Store in a cool, dry place. Do not store at temperatures in excess of 130° F.*

• **Specific end uses**

*Refer to Section 1.2 - Relevant identified uses.*

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## \* Section 8. Exposure Controls/Personal Protection

### Exposure Limits/Guidelines

	Result	ACGIH	Belgium	Canada Alberta	Canada British Columbia	Canada Manitoba
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	Not Established	1 ppm Ceiling; 1.3 mg/m3 Ceiling	1 ppm Ceiling	0.3 ppm Ceiling
	TWAs	Not Established	Not Established	207 rro VY C= 2Q 'o i b 5 VY C	0.3 ppm TWA	Not established
TMDS *359/48/: +	TWAs	207" o i b 5" VY C" *kj cxdg" Itcevkpp" cpf "xcrqt +	207"o i b 5"VY C" *cgt qunl'cpf "xcrqt +" 2027 rro VY C" *cgt qunl'cpf "xcrqt +	3'o i b 5 VY C	3'o i b 5 VY C	207"o i b 5"VY C" *kj cxdg" Itcevkpp" cpf "xcrqt +
Talc *36: 29/; 8/8+	TWAs	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	2 mg/m3 TWA	2 mg/m3 TWA *gur kcdg particulate)"	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)
3/Rt qrgpg."4/ methyl-*337/33/9+	TWAs	472" rro VY C" *kngf "wpf gt Dwgpgu "cm" kuqo gt u+	472" rro VY C" 7: 5' o i b 5 VY C	Not Established	Not Established	472" rro VY C" *kngf "wpf gt Dwgpgu" cnikuqo gt u+
ENB (16219-75-3)	Ceilings	5 ppm Ceiling	Not Established	5 ppm Ceiling; 25 mg/m	5 ppm ceiling	5 ppm Ceiling
Sulfur (7704-34-9)	TWAs	Not established	Not established	10 mg/m3 TWA	Not established	Not established
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)	10 mg/m3 STEL (respirable)	10 mg/m3 STEL (respirable fraction)
	TWAs	2 mg/m3 TWA (respirable fraction)	0 mg/m3 TWA (dust); 5 mg/m3 TWA (fume)	2 mg/m3 TWA (respirable)	2 mg/m3 TWA (respirable)	2 mg/m3 TWA (respirable fraction)
Carbon Black (1333-86-4)	TWAs	3 mg/m3 TWA (inhalable fraction)	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3 mg/m3 TWA (inhalable)	3 mg/m3 TWA (inhalable fraction)

### Exposure Limits/Guidelines Continued

	Result	Canada New Brunswick	Canada Nunavut	Canada Nova Scotia	Canada Northwest Territories	Canada Ontario
Formaldehyde (50-00-0)	STELs	1.5 ppm STEL	Not established	Not established	Not established	1.0 ppm STEL
	TWAs	0.5 ppm TWA	Not established	Not established	Not established	Not established
	Ceilings	Not established	2 ppm Ceiling; 2.4 mg/m3 Ceiling	0.3 ppm Ceiling	2 ppm Ceiling; 2.4 mg/m3 Ceiling	1.5 ppm Ceiling
	TMDS (137-26-8)	TWAs	1 mg/m3 TWA	5 mg/m3 TWA	0.05 mg/m3 TWA (inhalable fraction and vapor)	5 mg/m3 TWA
	STELs	Not established	10 mg/m3 STEL	Not established	10 mg/m3 STEL	Not established

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Talc (14807-96-6)	TWAs	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (containing no Asbestos and <1% Crystalline silica, respirable)
1-Propene, 2-methyl- (115-11-7)	TWAs	Not established	Not established	250 ppm TWA (listed under Butenes, all isomers)	Not established	250 ppm TWA (listed under Butenes, all isomers)
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (fume)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)
	TWAs	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, dust); 5 mg/m3 TWA (fume)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable fraction)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3 mg/m3 TWA (inhalable fraction)	3.5 mg/m3 TWA	3.5 mg/m3 TWA
	STELs	Not established	7 mg/m3 STEL	Not established	7 mg/m3 STEL	Not established

### Exposure Limits/Guidelines Continued

	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	NIOSH	OSHA
Formaldehyde (50-00-0)	STELs	Not established	Not established	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	Ceilings	2 ppm Ceiling; 3 mg/m3 Ceiling	Not established	2 ppm Ceiling; 3 mg/m3 Ceiling	0.1 ppm Ceiling (15 min)	Not established
	TWAs	Not established	Not established	Not established	0.016 ppm TWA	0.75 ppm TWA
TMDS (137-26-8)	TWAs	5 mg/m3 TWAEV	1 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA
	STELs	Not established	Not established	10 mg/m3 STEL	Not established	Not established
	Ceiling	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
Talc (14807-96-6)	TWAs	3 mg/m3 TWAEV (respirable dust)	2 mg/m3 TWA (respirable fraction)	20 mppcf TWA	2 mg/m3 TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established
Isoprene (78-79-5)	Ceilings	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established

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Zinc oxide (1314-13-2)	TWAs	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)	2 mg/m3 TWA (dust and fume, respirable fraction)	5 mg/m3 TWA (fume); 30 mppcf TWA (dust); 10 mg/m3 TWA (dust)	5 mg/m3TWA dust and fume)	5 mg/m TWA (fume); 15 mg/m TWA total dust)5 mg/m TWA (respirable fraction)
	STELs	10 mg/m3 STEV (fume)	Not established	10 mg/m3 STEL (fume); 20 mg/m3 STEL (dust)	10 mg/m3 STEL (fume)	Not established
	Ceilings	Not established	Not established	Not established	15 mg/m Ceiling dust)	Not established
	MAKs	Not established	Not established	Not established	Not established	1 mg/m3 TWA MAK (fume, respirable fraction)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWAEV	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)	3.5 mg/m3 TWA
		Not established	Not established	7 mg/m3 STEL		

### Exposure controls

- **Engineering Measures/Controls** Under normal conditions of use, special ventilation is not required.

### Personal Protective Equipment

- **Respiratory** No respiratory protection is required under normal conditions of use.
- **Eye/Face** Under normal conditions of use, eye protection is not required.
- **Skin/Body** Wear appropriate gloves.

Follow best practice for site cleanup and disposal of waste.

### Environmental Exposure Controls

#### Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

Time-Weighted Averages are based on 8h/day, 40h/week TWA exposures

## \* Section 9. Physical and Chemical Properties

### Information on Physical and Chemical Properties

Material Description	
Physical Form	Solid
Color	Black
Odor Threshold	None
Appearance/Description	Black solid (EPDM) laminated to tape. No odor.
Odor	None

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## General Properties

<b>Boiling Point</b>	Not relevant	<b>Melting Point</b>	Data lacking
<b>Decomposition Temperature</b>	Data lacking	<b>pH</b>	Not relevant
<b>Specific Gravity/Relative Density</b>	0.97 Water=1	<b>Water Solubility</b>	Negligible < 0.1 %
<b>Viscosity</b>	Not relevant	<b>Explosive Properties</b>	Not relevant.
<b>Oxidizing Properties</b>	Not relevant.		

## Volatility

<b>Vapor Pressure</b>	Not relevant	<b>Vapor Density</b>	Not relevant
<b>Evaporation Rate</b>	Not relevant	<b>Volatiles (Vol.)</b>	0.7 %

## Flammability

<b>Flash Point</b>	> 200 C(> 392 F)	<b>UEL</b>	Not relevant
<b>LEL</b>	Not relevant	<b>Autoignition</b>	Not relevant
<b>Flammability (solid, gas)</b>	Not flammable.		

## Environmental

<b>Octanol/Water Partition coefficient</b>	Data lacking
--	--------------

• **Other Information**

No additional physical and chemical parameters noted.

## \* Section 10. Stability and Reactivity

### Reactivity

• **Chemical stability**

No dangerous reaction known under conditions of normal use.

• **Possibility of hazardous reactions**

Stable under normal temperatures and pressures. Hazardous polymerization will not occur.

• **Conditions to avoid**

Temperatures in excess of 130° F.

• **Incompatible materials**

No data available.

• **Hazardous decomposition products**

Thermal decomposition could produce CO, CO<sub>2</sub>, and Oxides of Nitrogen.

## \* Section 11. Toxicological Information

Component Name	CAS	Data
Phenol, p-(1,1,3,3-tetramethylbutyl)- (2% TO 4%)	140-66-9	<b>Acute Toxicity:</b> orl-rat LD50:4600 mg/kg; skn-rbt LD50:1880 mg/kg; <b>Irritation:</b> eye-rbt 50 ug/24H SEV; skn-rbt 20 mg/24H MOD; <b>Reproductive:</b> orl-mus TDLo:2.4 mg/kg (10-21D preg/12D post); orl-mus TDLo:14000 ng/kg (11-17D preg); orl-rat TDLo:250.4 mg/kg (0-8D preg)
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic (0% TO 4%)	64742-52-5	<b>Irritation:</b> skn-rbt 500 mg SEV
Carbon Black (1% TO 4%)	1333-86-4	<b>Acute Toxicity:</b> orl-rat LD50:>15400 mg/kg; skn-rbt LD50:>3 gm/kg; <b>Tumorigen/Carcinogen:</b> ihl-rat TCLo:11600 ug/m3/18H/2Y-1

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Component Name	CAS	Data
Talc (0% TO 6%)	14807-96-6	<b>Irritation:</b> skn-hmn 300 ug/3D-I MLD; <b>Tumorigen/ Carcinogen:</b> ihl-rat TC :11 mg/m3/1Y-1
Zinc oxide (0.5% TO 2.5%)	1314-13-2	<b>Irritation:</b> eye-rbt 500 mg/24H MLD; skn-rbt 500 mg/24H MLD; <b>Reproductive:</b> orl-rat TDLo:6846 mg/kg (1-22D preg)
MBTS (0% TO 1%)	120-78-5	<b>Acute Toxicity:</b> orl-rat LD50:>12 gm/kg; skn-rbt LD50:>7940 mg/kg
p-Benzoquinone, 2,3,5,6-tetrachloro- (0% TO 1.5%)	118-75-2	<b>Acute Toxicity:</b> orl-rat LD50:4 gm/kg; ihl-rat LC50:2485 mg/m3/4H
TMDS (0% TO 1%)	137-26-8	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 560 mg/kg; ihl-rat LC50:500 mg/m3/4H; <b>Irritation:</b> eye-rbt 100 mg/24H MOD; <b>Reproductive:</b> orl-rat TDLo:300 mg/kg (15D preg); <b>Tumorigen/Carcinogen:</b> orl-rat TDLo:108 mg/kg/1Y-C

GHS Properties	Classification
<b>Acute toxicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Aspiration Hazard</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Carcinogenicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Germ Cell Mutagenicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Skin corrosion/Irritation</b>	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
<b>Skin sensitization</b>	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1A
<b>STOT-RE</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>STOT-SE</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Toxicity for Reproduction</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Respiratory sensitization</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Serious eye damage/Irritation</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

### Potential Health Effects Inhalation

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

### Skin

- **Acute (Immediate)** Causes skin irritation. May cause an allergic skin reaction. Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**

### Eye

- **Acute (Immediate)** Direct contact with tape may cause mechanical irritation.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

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## Ingestion

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

## Carcinogenic Effects

Although this material does contain several components that are either carcinogens or potential carcinogens the material as a whole is not classified as a carcinogen according to regulatory guidelines. The carbon black is encapsulated within the matrix of this material and no exposure is expected. The isoprene and formaldehyde components are both in this material at low enough concentrations that this material is not classified as a carcinogen per agency guidelines.

### Carcinogenic Effects

	CAS	OSHA	IARC	NTP
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Isoprene	78-79-5	Not Listed	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen
Carbon Black	1333-86-4	Not Listed	Group 2B-Possible Carcinogen	Not Listed

#### Key to abbreviations

LC = Lethal Concentration  
LD = Lethal Dose  
MLD = Mild  
MOD = Moderate  
SEV = Severe  
TC = Toxic Concentration  
TD = Toxic Dose

## \* Section 12. Ecological Information

### Toxicity

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

### Behavior in environmental systems

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

### Ecotoxicological effects

- **Remark:** No further relevant information available.

### Additional ecological information

- **General notes:** At present there are no ecotoxicological assessments.

### Results of PBT and vPvB

- **assessment PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

## \* Section 13. Disposal Considerations

### Waste treatment methods

#### Product waste handling

- **Recommendation:** Dispose of waste product and/or container according to local, regional, state, and national/international regulations.

#### Packaging waste handling

- **Recommendation:** Dispose of packaging or container according to local, regional, state, and national/international regulations.

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## \* Section 14. Transport Information

	<i>UN number</i>	<i>UN proper shipping name</i>	<i>Transport hazard class(es)</i>	<i>Packing group</i>	<i>Environmental hazards</i>
<i>DOT</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>TDG</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>IMO/IMDG</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>ADN</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>ADR/RID</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>IATA/ICAO</i>	NDA	Not Regulated	NDA	NDA	NDA

- **Special precautions for user**

None known.

- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not Relevant.

## \* Section 15. Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**SARA Hazard Classifications**      *Acute*

### State Right To Know

<i>Component</i>	<i>CAS</i>	<i>MA</i>	<i>NJ</i>	<i>PA</i>
<i>1-Propene, 2-methyl-</i>	115-11-7	Yes	Yes	Yes
<i>ENB</i>	16219-75-3	Yes	Yes	Yes
<i>MBTS</i>	120-78-5	No	No	No
<i>Calcium oxide</i>	1305-78-8	Yes	Yes	Yes
<i>Carbon Black</i>	1333-86-4	Yes	Yes	Yes
<i>TMDS</i>	137-26-8	Yes	Yes	Yes
<i>Ethylene propylene diene rubber</i>	25038-36-2	No	No	No
<i>Formaldehyde</i>	50-00-0	Yes	Yes	Yes
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	64742-52-5	No	No	No
<i>Isobutylene-Isoprene polymer</i>	9010-85-9	No	No	No
<i>Isoprene</i>	78-79-5	Yes	Yes	Yes
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	118-75-2	No	No	No
<i>Phenol, 4-methyl</i>	68610-51-5	No	No	No
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	140-66-9	No	No	No
<i>Polybutene</i>	9003-29-6	No	No	No
<i>Sulfur</i>	7704-34-9	Yes	Yes	Yes
<i>Talc</i>	14807-96-6	Yes	Yes	Yes
<i>Zinc oxide</i>	1314-13-2	Yes	Yes	Yes

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<b>Inventory</b>				
<b>Component</b>	<b>CAS</b>	<b>Canada DSL</b>	<b>Canada NDSL</b>	
<i>1-Propene, 2-methyl-</i>	<i>115-11-7</i>	<i>Yes</i>	<i>No</i>	
<i>ENB</i>	<i>16219-75-3</i>	<i>No</i>	<i>Yes</i>	
<i>MBTS</i>	<i>120-78-5</i>	<i>Yes</i>	<i>No</i>	
<i>Calcium oxide</i>	<i>1305-78-8</i>	<i>Yes</i>	<i>No</i>	
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>Yes</i>	<i>No</i>	
<i>TMDS</i>	<i>137-26-8</i>	<i>Yes</i>	<i>No</i>	
<i>Ethylene propylene diene rubber</i>	<i>25038-36-2</i>	<i>Yes</i>	<i>No</i>	
<i>Formaldehyde</i>	<i>50-00-0</i>	<i>Yes</i>	<i>No</i>	
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	<i>64742-52-5</i>	<i>Yes</i>	<i>No</i>	
<i>Isobutylene-Isoprene polymer</i>	<i>9010-85-9</i>	<i>Yes</i>	<i>No</i>	
<i>Isoprene</i>	<i>78-79-5</i>	<i>Yes</i>	<i>No</i>	
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	<i>118-75-2</i>	<i>Yes</i>	<i>No</i>	
<i>Phenol, 4-methyl</i>	<i>68610-51-5</i>	<i>Yes</i>	<i>No</i>	
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	<i>140-66-9</i>	<i>Yes</i>	<i>No</i>	
<i>Polybutene</i>	<i>9003-29-6</i>	<i>Yes</i>	<i>No</i>	
<i>Sulfur</i>	<i>7704-34-9</i>	<i>Yes</i>	<i>No</i>	
<i>Talc</i>	<i>14807-96-6</i>	<i>Yes</i>	<i>No</i>	
<i>Zinc oxide</i>	<i>1314-13-2</i>	<i>Yes</i>	<i>No</i>	

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

• <i>Phenol, 4-methyl</i>	<i>68610-51-5</i>	<i>Not Listed</i>
• <i>Isobutylene-Isoprene polymer</i>	<i>9010-85-9</i>	<i>Not Listed</i>
• <i>Isoprene</i>	<i>78-79-5</i>	<i>Not Listed</i>
• <i>1-Propene, 2-methyl-</i>	<i>115-11-7</i>	<i>Not Listed</i>
• <i>MBTS</i>	<i>120-78-5</i>	<i>Not Listed</i>
• <i>Ethylene propylene diene rubber</i>	<i>25038-36-2</i>	<i>Not Listed</i>
• <i>TMDS</i>	<i>137-26-8</i>	<i>Not Listed</i>
• <i>Formaldehyde</i>	<i>50-00-0</i>	<i>Not Listed</i>
• <i>Calcium oxide</i>	<i>1305-78-8</i>	<i>A, B1, D1A, D2A, D2B; B3, 1A, D2A, D2B, E (regulated under Formol)</i>
• <i>Carbon Black</i>	<i>1333-86-4</i>	<i>E</i>
		<i>D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Carbon Black, non-respirable on Health Canada's WHMIS Division website.) D2A Uncontrolled product according to WHMIS classification criteria</i>

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<i>Talc</i>	<i>14807-96-6</i>	<i>D2A</i>
<i>Zinc oxide</i>	<i>1314-13-2</i>	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Zinc oxide as Zinc compounds</i>		<i>Not Listed</i>
<i>Polybutene</i>	<i>9003-29-6</i>	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Sulfur</i>	<i>7704-34-9</i>	<i>B4</i>
<i>ENB</i>	<i>16219-75-3</i>	<i>B2, D1A, D2B</i>
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	<i>118-75-2</i>	<i>Not Listed</i>
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	<i>140-66-9</i>	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	<i>64742-52-5</i>	<i>Not Listed</i>
<b>Canada</b>		
<b>WHMIS - Ingredient Disclosure List</b>		
<i>Phenol, 4-methyl</i>	<i>68610-51-5</i>	<i>Not Listed</i>
<i>Isobutylene-Isoprene polymer</i>	<i>9010-85-9</i>	<i>Not Listed</i>
<i>Isoprene</i>	<i>78-79-5</i>	<i>1 %</i>
<i>1-Propene, 2-methyl-</i>	<i>115-11-7</i>	<i>Not Listed</i>
<i>MBTS</i>	<i>120-78-5</i>	<i>1 %</i>
<i>Ethylene propylene diene rubber</i>	<i>25038-36-2</i>	<i>Not Listed</i>
<i>TMDS</i>	<i>137-26-8</i>	<i>1 %</i>
<i>Formaldehyde</i>	<i>50-00-0</i>	<i>0.1 %</i>
<i>Calcium oxide</i>	<i>1305-78-8</i>	<i>1 %</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>1 %</i>
<i>Talc</i>	<i>14807-96-6</i>	<i>Not Listed</i>
<i>Zinc oxide</i>	<i>1314-13-2</i>	<i>1 %</i>
<i>Zinc oxide as Zinc compounds</i>		<i>Not Listed</i>
<i>Polybutene</i>	<i>9003-29-6</i>	<i>Not Listed</i>
<i>Sulfur</i>	<i>7704-34-9</i>	<i>Not Listed</i>
<i>ENB</i>	<i>16219-75-3</i>	<i>1 %</i>
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	<i>118-75-2</i>	<i>Not Listed</i>
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	<i>140-66-9</i>	<i>Not Listed</i>
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	<i>64742-52-5</i>	<i>Not Listed</i>
<b>Environment</b>		
<b>Canada - CEPA - Priority Substances List</b>		
<i>Phenol, 4-methyl</i>	<i>68610-51-5</i>	<i>Not Listed</i>
<i>Isobutylene-Isoprene polymer</i>	<i>9010-85-9</i>	<i>Not Listed</i>
<i>Isoprene</i>	<i>78-79-5</i>	<i>Not Listed</i>
<i>1-Propene, 2-methyl-</i>	<i>115-11-7</i>	<i>Not Listed</i>
<i>MBTS</i>	<i>120-78-5</i>	<i>Not Listed</i>
<i>Ethylene propylene diene rubber</i>	<i>25038-36-2</i>	<i>Not Listed</i>
<i>TMDS</i>	<i>137-26-8</i>	<i>Not Listed</i>
<i>Formaldehyde</i>	<i>50-00-0</i>	<b>Priortiy Substance List 2 (substance considered toxic)</b>

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Calcium oxide	1305-78-8	Not Listed
Carbon Black	1333-86-4	Not Listed
Talc	14807-96-6	Not Listed
Zinc oxide	1314-13-2	Not Listed
Zinc oxide as Zinc compounds		Not Listed
Polybutene	9003-29-6	Not Listed
Sulfur	7704-34-9	Not Listed
ENB	16219-75-3	Not Listed
p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

## United States

### Labor

#### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	1000 lb TQ
• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

#### U.S. - OSHA - Specifically Regulated Chemicals

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed

• Formaldehyde	50-00-0	2 ppm STEL (Irritant and potential cancer hazard, See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level ; 0.75 ppm TWA
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• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

## Environment

### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed

U.S. - California - Proposition 65 - Carcinogens List: Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity: Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MAD): Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL): Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female: Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male: Not Listed

## United States - Pennsylvania

### Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List: Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances: Not Listed

**Chemical Safety Assessment:** Chemical Safety Assessment is not required.

## \* Section 16. Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation/ last revision** 03/21/2007

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• **Tradename:** Royal Edge Cured Cover Strip with Tape, Re-Flex EPDM Cover Tape

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- **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

End of SDS



**\* Section 1. Identification**

**Product identifier:** EPDM Seam Tape Accessories

- **Trade name:** Royal Edge Seam Tape, Royal Edge Cover Tape, Royal Edge Uncured Flashing with Tape, Royal Edge Pipe Boot with Tape, Royal Edge RPS with Tape, Re-Flex Cover Tape, Re-Flex Uncured Flashing with Tape, Re-Flex Pipe Boot with Tape, Re-Flex Seam Tape, Re-Flex TPO Cover Tape, Re-Flex TPO Inside/Outside Corners with Tape.
- **Relevant identified uses of the substance or mixture:** Construction: Sealing Compound

**Details of the supplier of the safety data sheet Manufacturer/Supplier**

Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078  
Telephone: 1-574-293-9096  
Information Department: Technical Services Department

**Emergency telephone number**

Chemtec United States 1(800) 424-9300 International 703-527-3887

**\* Section 2. Hazard(s) Identification**

**EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

**Classification of the substance or mixture**

- **CLP** Skin Irritation 2 - H315 Skin Sensitization 1 - H317
- **DSD/DPD** Irritant (Xi) Sensitizer R38, R43

**Label Elements**

- **CLP**

**WARNING**



**Hazard statements**

H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction

**Precautionary statements**

- **Prevention** P261 - Avoid breathing dust/fume.  
P264 - Wash thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- **Response** P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P321 - Specific treatment, see supplemental first aid information.  
P362 - Take off contaminated clothing and wash before reuse.
- **Storage/Disposal** P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

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- **DSD/DPD**



- **Risk phrases**

R38 - Irritating to skin.  
R43 - May cause sensitisation by skin contact.

- **Safety phrases**

S24 - Avoid contact with skin.  
S37 - Wear suitable gloves.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### Other Hazards

- **CLP** According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- **DSD/DPD** According to European Directive 1999/45/EC this preparation is considered dangerous.

### United States (US)

- According to OSHA 29 CFR 1910.1200 HCS

### Classification of the substance or mixture

- **OSHA HCS 2012** Skin Irritation 2 - H315  
Skin Sensitization 1A - H317

### Label elements

- **OSHA HCS 2012**

### WARNING



### Hazard statements

Causes skin irritation - H315  
May cause an allergic skin reaction - H317

### Precautionary statements

- **Prevention**  
Avoid breathing dust/fume. - P261  
Wash thoroughly after handling. - P264  
Contaminated work clothing should not be allowed out of the workplace.- P272  
Wear protective gloves/protective clothing/eye protection/face protection.- P280
- **Response**  
If skin irritation occurs: Get medical advice/attention. - P332+P313  
IF ON SKIN: Wash with plenty of soap and water. - P302+P352  
Specific treatment, see supplemental first aid information. - P321  
If skin irritation or rash occurs: Get medical advice/attention. - P333+P313  
Take off contaminated clothing and wash before reuse. - P362
- **Storage/Disposal**  
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

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## Other hazards

- **OSHA HCS 2012** Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

## Canada

- According to WHMIS

## Classification of the substance or mixture

- **WHMIS** Other Toxic Effects - D2B

## Label elements

- **WHMIS** Other Toxic Effects - D2B



## Other hazards

- **WHMIS** In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

## \* Section 3. Composition/Information on Ingredients

### Substances

Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008

Mixtures		Composition			
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Resin	NDA	4% TO 13%	NDA	<b>EU DSD/DPD:</b> Self Classified: Xi R36/37/38 <b>EU CLP:</b> Self Classified: Eye Irrit. 2A, H319; Skin Irrit. 2, H315; STOT SE 3 - Resp., H335 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; STOT SE 3 - Resp.	NDA
Talc	CAS:14807-96-6 EC Number:238-877-9	0% TO 6%	NDA	<b>EU DSD/DPD:</b> Self Classified: Xn R48/20 <b>EU</b> <b>CLP:</b> Self Classified: STOT RE 1, H372 <b>OSHA</b> <b>HCS 2012:</b> STOT RE 1 (Lungs)	NDA
Calcium oxide	CAS:1305-78-8 EC Number:215-138-9	1% TO 5%	NDA	<b>EU DSD/DPD:</b> Self Classified: C R34 <b>EU CLP:</b> Self Classified: Skin Corr. 1C, H314; Eye Dam. 1, H318 <b>OSHA HCS 2012:</b> Skin Corr. 1C; Eye Dam. 1	NDA
Phenol, p-(1,1,3,3-tetramethylbutyl)-	CAS:140-66-9 EINECS:205-426-2	2% TO 4%	Skin-Rabbit LD50 1880 mg/kg Ingestion/Oral Rat LD50 > 2000 mg/kg	<b>EU DSD/DPD:</b> Annex I: Xi R38-41; N R50-53 <b>EU</b> <b>CLP:</b> Annex VI: Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; Repr. 2	NDA

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Mineral oil, petroleum distillates, hydro-treated (mild) heavy naphthenic	CAS:64742-52-5 EC Number:265-155-0	0% To 4%	NDA	EU DSD/DPD: Annex I: Carc. 2; R45 EU CLP: Annex VI: Carc. 1B, H350 OSHA HCS 2012: Skin Irrit. 2	NDA
Carbon Black	CAS: 1333-86-4 EC Number: 215- 609-9	1% To 4%	Skin-Rabbit LD50 >3 g/kg Ingestion/Oral-Rat LD50 >15400 mg/kg	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: Carc. 2	NDA
Zinc oxide	CAS: 1314-13-2 EC Number: 215- 222-5	0.5% To 2.5%	NDA	EU DSD/DPD: Annex I: N; R50-53 EU CLP: Annex VI: Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Eye Irrit. 2B	NDA
p-Benzoquinone, 2,3, 5,6-tetrachloro-	CAS: 118-75-2 EC Number: 204- 274-4	0% To 1.5%	Ingestion/Oral-Rat LD50 • 4 g/kg	EU DSD/DPD: Annex I: Xi R36/38 N R50-53 EU CLP: Annex VI: Eye Irrit. 2, H319; Skin Irrit. 2, H315; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Eye Irrit. 2A; Skin Irrit. 2; STOT RE 3: Resp. Irrit. & Narc.; Acute Tox. 4 (Inhl)	NDA
TMDS	CAS: 137-26-8 EC Number: 205-286-2	0% To 1%	Ingestion/Oral-Rat LD50 • 560 mg/kg Inhalation-Rat LC50 500 mg/m <sup>3</sup> 4 Hour(s)	EU DSD/DPD: Annex I: Xn R20/22 - 48/22 Xi R36/38; R43 N R50-53 EU CLP: Annex VI: Acute Tox. 4, H332; Acute Tox. 4, H302; STOT RE 2, H373; Eye Irrit. 2, H319; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1A; Acute Tox. 4 (Oral); Acute Tox. 2 (Inhl)	NDA
MBTS	CAS: 120-78-5 EC Number: 204-424-9	0% To 1%	Ingestion/Oral-Rat LD50 >12 g/kg Skin-Rabbit LD50 >7940 mg/kg	EU DSD/DPD: Annex I: R31 R43 N; R50-53 EU CLP: Annex VI: Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Skin Sens. 1A	NDA

Refer to Section 11 for Toxicological Information.

## \* Section 4. First-Aid Measures

- Inhalation** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- Skin** Remove material from skin with waterless hand cleaners followed by washing with soap and water. If signs/symptoms develop, get medical attention.
- Eye** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

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**Most important symptoms and effects, both acute and delayed**

*Refer to Section 11 - Toxicological Information.*

**Indication of any immediate medical attention and special treatment needed**

**• Note to physician**

*All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.*

**\* Section 5. Fire-Fighting Measures**

**Extinguishing media**

- **Suitable Extinguishing Media:** *Water, foam, dry chemical, carbon dioxide (CO2).*
- **Unsuitable Extinguishing Media:** *None known.*

**Special hazards arising from the substance or mixture**

- **Unusual Fire and Explosion Hazards:** *Material releases toxic and corrosive gases/vapors when burned.*
- **Hazardous Combustion Products:** *Nitrous oxides, sulfur oxides, carbon oxides.*

**Advice for firefighters**

*Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.*

**\* Section 6. Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures**

- **Personal Precautions** *No special precautions expected to be necessary if material is used under ordinary conditions as recommended.*
- **Emergency Procedures** *No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures.*

**Environmental precautions**

*No special precautions necessary.*

**Methods and material for containment and cleaning up**

- **Containment/Clean-up Measures:**  
*Pick up pieces and place in container or bag for disposal.*

**Reference to other sections**

*Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.*

**\* Section 7. Handling and Storage**

**Precautions for safe handling**

**• Handling**

*Do not handle at temperatures in excess of 130° F. Avoid prolonged or repeated contact with the skin. Use good safety and industrial hygiene practices. Product readily removed from the skin with waterless hand cleaners followed by washing with soap and water.*

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**Conditions for safe storage, including any incompatibilities**

- **Storage**  
Store in a cool, dry place. Do not store at temperatures in excess of 130° F.
- **Specific end uses**  
Refer to Section 1.2 - Relevant identified uses.

**\* Section 8. Exposure Controls/Personal Protection**

**Exposure Limits/Guidelines**

	Result	ACGIH	Belgium	Canada Alberta	Canada British Columbia	Canada Manitoba
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	Not Established	1 ppm Ceiling; 1.3 mg/m <sup>3</sup> Ceiling	1 ppm Ceiling	0.3 ppm Ceiling
	TWAs	Not Established	Not Established	207 rro VY C= 20 o i lo 5 VY C	0.3 ppm TWA	Not established
TMDS *359/48/+	TWAs	207 o i lo 5 VY C *pj cxdrg "ltcevkq cpf 'xcrqt +	207 o i lo 5 VY C" *gt quqncpf 'xcrqt =" 2027 rro VY C" *gt quqncpf 'xcrqt +	3 o i lo 5 VY C	3 o i lo 5 VY C	207 o i lo 5 VY C" *pj cxdrg "ltcevkq cpf 'xcrqt +
Talc *36: 29/+; 8/8+	TWAs	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA (*gw k cxdrg particulate)"	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)
3/Rt qrgpg. 4/ methyl- *337/33/9+	TWAs	472 rro VY C *kngf " wpf gt Dwgpgu 'cm' kuqo gt u+	472 rro VY C = " 7: 5 o i lo 5 VY C	Not Established	Not Established	472 rro VY C *kngf " wpf gt Dwgpgu 'cm' kuqo gt u+
ENB (16219-75-3)	Ceilings	5 ppm Ceiling	Not Established	5 ppm Ceiling; 25 mg/m	5 ppm ceiling	5 ppm Ceiling
Sulfur (7704-34-9)	TWAs	Not established	Not established	10 mg/m <sup>3</sup> TWA	Not established	Not established
Zinc oxide (1314-13-2)	STELs	10 mg/m <sup>3</sup> STEL (respirable fraction)	10 mg/m <sup>3</sup> STEL (fume)	10 mg/m <sup>3</sup> STEL (respirable)	10 mg/m <sup>3</sup> STEL (respirable)	10 mg/m <sup>3</sup> STEL (respirable fraction)
	TWAs	2 mg/m <sup>3</sup> TWA (respirable fraction)	0 mg/m <sup>3</sup> TWA (dust); 5 mg/m <sup>3</sup> TWA (fume)	2 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable fraction)
Carbon Black (1333-86-4)	TWAs	3 mg/m <sup>3</sup> TWA (inhalable fraction)	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA	3 mg/m <sup>3</sup> TWA (inhalable)	3 mg/m <sup>3</sup> TWA (inhalable fraction)

**Exposure Limits/Guidelines Continued**

	Result	Canada New Brunswick	Canada Nunavut	Canada Nova Scotia	Canada Northwest Territories	Canada Ontario
Formaldehyde (50-00-0)	STELs	1.5 ppm STEL	Not established	Not established	Not established	1.0 ppm STEL
	TWAs	0.5 ppm TWA	Not established	Not established	Not established	Not established
	Ceilings	Not established	2 ppm Ceiling; 2.4 mg/m <sup>3</sup> Ceiling	0.3 ppm Ceiling	2 ppm Ceiling; 2.4 mg/m <sup>3</sup> Ceiling	1.5 ppm Ceiling

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TMDS (137-26-8)	TWAs	1 mg/m3 TWA	5 mg/m3 TWA	0.05 mg/m3 TWA (inhalable fraction and vapor)	5 mg/m3 TWA	0.05 mg/m3 TWA (inhalable fraction and vapor, listed under Thiram)
	STELs	Not established	10 mg/m3 STEL	Not established	10 mg/m3 STEL	Not established
Talc (14807-96-6)	TWAs	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (containing no Asbestos and <1% Crystalline silica, respirable)
1-Propene, 2- methyl- (115-11-7)	TWAs	Not established	Not established	250 ppm TWA (listed under Butenes, all isomers)	Not established	250 ppm TWA (listed under Butenes, all isomers)
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (fume)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)
	TWAs	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, dust); 5 mg/ m3 TWA (fume)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, res- pirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable fraction)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3 mg/m3 TWA (inhalable fraction)	3.5 mg/m3 TWA	3.5 mg/m3 TWA
	STELs	Not established	7 mg/m3 STEL	Not established	7 mg/m3 STEL	Not established

### Exposure Limits/Guidelines Continued

	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	NIOSH	OSHA
Formaldehyde (50-00-0)	STELs	Not established	Not established	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	Ceilings	2 ppm Ceiling; 3 mg/m3 Ceiling	Not established	2 ppm Ceiling; 3 mg/m3 Ceiling	0.1 ppm Ceiling (15 min)	Not established
	TWAs	Not established	Not established	Not established	0.016 ppm TWA	0.75 ppm TWA
TMDS (137-26-8)	TWAs	5 mg/m3 TWAEV	1 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA
	STELs	Not established	Not established	10 mg/m3 STEL	Not established	Not established
	Ceiling	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
Talc (14807-96-6)	TWAs	3 mg/m3 TWAEV (respirable dust)	2 mg/m3 TWA (respirable fraction)	20 mppcf TWA	2 mg/m3 TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established
Isoprene (78-79-5)	Ceilings	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established

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Zinc oxide (1314-13-2)	TWAs	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)	2 mg/m3 TWA (dust and fume, respirable fraction)	5 mg/m3 TWA (fume); 30 mppcf TWA (dust); 10 mg/m3 TWA (dust)	5 mg/m3 TWA dust and fume)	5 mg/m TWA (fume); 15 mg/m TWA total dust) 5 mg/m TWA (respirable fraction)
	STELs	10 mg/m3 STEV (fume)	Not established	10 mg/m3 STEL (fume); 20 mg/m3 STEL (dust)	10 mg/m3 STEL (fume)	Not established
	Ceilings	Not established	Not established	Not established	15 mg/m Ceiling dust)	Not established
	MAKs	Not established	Not established	Not established	Not established	1 mg/m3 TWA MAK (fume, respirable fraction)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWAEV	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)	3.5 mg/m3 TWA
		Not established	Not established	7 mg/m3 STEL		

## Exposure controls

- **Engineering Measures/Controls** Under normal conditions of use, special ventilation is not required.
  - **Personal Protective Equipment**
  - **Respiratory** No respiratory protection is required under normal conditions of use.
  - **Eye/Face** Under normal conditions of use, eye protection is not required.
  - **Skin/Body** Wear appropriate gloves.
- Follow best practice for site cleanup and disposal of waste.

## Environmental Exposure Controls

### Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene  
 NIOSH = National Institute of Occupational Safety and Health  
 OSHA = Occupational Safety and Health Administration  
 STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value  
 TWAEV = Time-Weighted Average Exposure Value  
 Time-Weighted Averages are based on 8h/day, 40h/week TWA exposures

## \* Section 9. Physical and Chemical Properties

### Information on Physical and Chemical Properties

Material Description	
Physical Form	Solid
Appearance/Description	Black solid (EPDM) laminated to tape. No odor.
Color	Black
Odor	None
Odor Threshold	None

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## General Properties

<b>Boiling Point</b>	Not relevant	<b>Melting Point</b>	Data lacking
<b>Decomposition Temperature</b>	Data lacking	<b>pH</b>	Not relevant
<b>Specific Gravity/Relative Density</b>	0.97 Water=1	<b>Water Solubility</b>	Negligible < 0.1 %
<b>Viscosity</b>	Not relevant	<b>Explosive Properties</b>	Not relevant.
<b>Oxidizing Properties</b>	Not relevant.		

## Volatility

<b>Vapor Pressure</b>	Not relevant	<b>Vapor Density</b>	Not relevant
<b>Evaporation Rate</b>	Not relevant	<b>Volatiles (Vol.)</b>	0.7 %

## Flammability

<b>Flash Point</b>	> 200 C(> 392 F)	<b>UEL</b>	Not relevant
<b>LEL</b>	Not relevant	<b>Autoignition</b>	Not relevant
<b>Flammability (solid, gas)</b>	Not flammable.		

## Environmental

<b>Octanol/Water Partition coefficient</b>	Data lacking
--	--------------

## Other Information

No additional physical and chemical parameters noted.

## \* Section 10. Stability and Reactivity

### Reactivity

- **Chemical stability**  
No dangerous reaction known under conditions of normal use.
- **Possibility of hazardous reactions**  
Stable under normal temperatures and pressures. Hazardous polymerization will not occur.
- **Conditions to avoid**  
Temperatures in excess of 130° F.
- **Incompatible materials**  
No data available.
- **Hazardous decomposition products**  
Thermal decomposition could produce CO, CO<sub>2</sub>, and Oxides of Nitrogen.

## \* Section 11. Toxicological Information

Component Name	CAS	Data
Phenol, p-(1,1,3,3-tetramethylbutyl)- (2% TO 4%)	140-66-9	<b>Acute Toxicity:</b> orl-rat LD50:4600 mg/kg; skn-rbt LD50:1880 mg/kg; <b>Irritation:</b> eye-rbt 50 ug/24H SEV; skn-rbt 20 mg/24H MOD; <b>Reproductive:</b> orl-mus TDLo:2.4 mg/kg (10-21D preg/12D post); orl-mus TDLo:14000 ng/kg (11-17D preg); orl-rat TDLo:250.4 mg/kg (0-8D preg)
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic (0% TO 4%)	64742-52-5	<b>Irritation:</b> skn-rbt 500 mg SEV
Carbon Black (1% TO 4%)	1333-86-4	<b>Acute Toxicity:</b> orl-rat LD50:>15400 mg/kg; skn-rbt LD50:>3 gm/kg; <b>Tumorigen/Carcinogen:</b> ihl-rat TCLo:11600 ug/m <sup>3</sup> /18H/2Y-1

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Component Name	CAS	Data
Talc (0% TO 6%)	14807-96-6	<b>Irritation:</b> skn-hmn 300 ug/3D-I MLD; <b>Tumorigen/Carcinogen:</b> ihl-rat TC :11 mg/m3/1Y-I
Zinc oxide (0.5% TO 2.5%)	1314-13-2	<b>Irritation:</b> eye-rbt 500 mg/24H MLD; skn-rbt 500 mg/24H MLD; <b>Reproductive:</b> orl-rat TDLo:6846 mg/kg (1-22D preg)
MBTS (0% TO 1%)	120-78-5	<b>Acute Toxicity:</b> orl-rat LD50:>12 gm/kg; skn-rbt LD50:>7940 mg/kg
p-Benzoquinone, 2,3,5,6-tetrachloro- (0% TO 1.5%)	118-75-2	<b>Acute Toxicity:</b> orl-rat LD50:4 gm/kg; ihl-rat LC50:2485 mg/m3/4H
TMDS (0% TO 1%)	137-26-8	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 560 mg/kg; ihl-rat LC50: 500mg/m3/4H; <b>Irritation:</b> eye-rbt 100 mg/24H MOD; <b>Reproductive:</b> orl-rat TDLo:300 mg/kg (15D preg); <b>Tumorigen/Carcinogen:</b> orl-rat TDLo:108 mg/kg/1Y-C

GHS Properties	Classification
<b>Acute toxicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Aspiration Hazard</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Carcinogenicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Germ Cell Mutagenicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Skin corrosion/Irritation</b>	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
<b>Skin sensitization</b>	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1A
<b>STOT-RE</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>STOT-SE</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Toxicity for Reproduction</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Respiratory sensitization</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Serious eye damage/Irritation</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

## Potential Health Effects Inhalation

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

## Skin

- **Acute (Immediate)** Causes skin irritation. May cause an allergic skin reaction. Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**

## Eye

- **Acute (Immediate)** Direct contact with tape may cause mechanical irritation.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

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**Ingestion**

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

**Carcinogenic Effects**

Although this material does contain several components that are either carcinogens or potential carcinogens the material as a whole is not classified as a carcinogen according to regulatory guidelines. The carbon black is encapsulated within the matrix of this material and no exposure is expected. The isoprene and formaldehyde components are both in this material at low enough concentrations that this material is not classified as a carcinogen per agency guidelines.

**Carcinogenic Effects**

	CAS	OSHA	IARC	NTP
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Isoprene	78-79-5	Not Listed	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen
Carbon Black	1333-86-4	Not Listed	Group 2B-Possible Carcinogen	Not Listed

**Key to abbreviations**

- LC = Lethal Concentration
- LD = Lethal Dose
- MLD = Mild
- MOD = Moderate
- SEV = Severe
- TC = Toxic Concentration
- TD = Toxic Dose

**\* Section 12. Ecological Information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

**Behavior in environmental systems**

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

**Ecotoxicological effects**

- **Remark:** No further relevant information available.

**Additional ecological information**

**General notes:** At present there are no ecotoxicological assessments.

**Results of PBT and vPvB**

- **assessment PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

**\* Section 13. Disposal Considerations**

**Waste treatment methods**

- **Product waste handling**
- **Recommendation:** Dispose of waste product and/or container according to local, regional, state, and national/international regulations.
- **Packaging waste handling**
- **Recommendation:** Dispose of packaging or container according to local, regional, state, and national/international regulations.

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## \* Section 14. Transport Information

	<b>UN number</b>	<b>UN proper shipping name</b>	<b>Transport hazard class(es)</b>	<b>Packing group</b>	<b>Environmental hazards</b>
<b>DOT</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>TDG</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>IMO/IMDG</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>ADN</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>ADR/RID</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>IATA/ICAO</b>	NDA	Not Regulated	NDA	NDA	NDA

- **Special precautions for user**  
None known.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not Relevant.

## \* Section 15. Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**SARA Hazard Classifications**      *Acute*

<b>State Right To Know</b>				
<b>Component</b>	<b>CAS</b>	<b>MA</b>	<b>NJ</b>	<b>PA</b>
<b>1-Propene, 2-methyl-</b>	115-11-7	Yes	Yes	Yes
<b>ENB</b>	16219-75-3	Yes	Yes	Yes
<b>MBTS</b>	120-78-5	No	No	No
<b>Calcium oxide</b>	1305-78-8	Yes	Yes	Yes
<b>Carbon Black</b>	1333-86-4	Yes	Yes	Yes
<b>TMDS</b>	137-26-8	Yes	Yes	Yes
<b>Ethylene propylene diene rubber</b>	25038-36-2	No	No	No
<b>Formaldehyde</b>	50-00-0	Yes	Yes	Yes
<b>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</b>	64742-52-5	No	No	No
<b>Isobutylene-Isoprene polymer</b>	9010-85-9	No	No	No
<b>Isoprene</b>	78-79-5	Yes	Yes	Yes
<b>p-Benzoquinone, 2,3,5,6-tetrachloro-</b>	118-75-2	No	No	No
<b>Phenol, 4-methyl</b>	68610-51-5	No	No	No
<b>Phenol, p-(1,1,3,3-tetramethylbutyl)-</b>	140-66-9	No	No	No
<b>Polybutene</b>	9003-29-6	No	No	No
<b>Sulfur</b>	7704-34-9	Yes	Yes	Yes
<b>Talc</b>	14807-96-6	Yes	Yes	Yes
<b>Zinc oxide</b>	1314-13-2	Yes	Yes	Yes

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<b>Inventory</b>				
Component	CAS	Canada DSL	Canada NDSL	
<i>1-Propene, 2-methyl-</i>	115-11-7	Yes	No	
ENB	16219-75-3	No	Yes	
MBTS	120-78-5	Yes	No	
Calcium oxide	1305-78-8	Yes	No	
Carbon Black	1333-86-4	Yes	No	
TMDS	137-26-8	Yes	No	
Ethylene propylene diene rubber	25038-36-2	Yes	No	
Formaldehyde	50-00-0	Yes	No	
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Yes	No	
Isobutylene-Isoprene polymer	9010-85-9	Yes	No	
Isoprene	78-79-5	Yes	No	
<i>p</i> -Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Yes	No	
Phenol, 4-methyl	68610-51-5	Yes	No	
Phenol, <i>p</i> -(1,1,3,3-tetramethylbutyl)-	140-66-9	Yes	No	
Polybutene	9003-29-6	Yes	No	
Sulfur	7704-34-9	Yes	No	
Talc	14807-96-6	Yes	No	
Zinc oxide	1314-13-2	Yes	No	

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	Not Listed
• Calcium oxide	1305-78-8	A, B1, D1A, D2A, D2B; B3, 1A, D2A, D2B, E (regulated under Formol)
• Carbon Black	1333-86-4	E  D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Carbon Black, non-respirable on Health Canada's WHMIS Division website.) D2A Uncontrolled product according to WHMIS classification criteria

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<i>Talc</i>	<i>14807-96-6</i>	<i>D2A</i>
<i>Zinc oxide</i>	<i>1314-13-2</i>	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Zinc oxide as Zinc compounds</i>		<i>Not Listed</i>
<i>Polybutene</i>	<i>9003-29-6</i>	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Sulfur</i>	<i>7704-34-9</i>	<i>B4</i>
<i>ENB</i>	<i>16219-75-3</i>	<i>B2, D1A, D2B</i>
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	<i>118-75-2</i>	<i>Not Listed</i>
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	<i>140-66-9</i>	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	<i>64742-52-5</i>	<i>Not Listed</i>
<b>Canada</b>		
<b>WHMIS - Ingredient Disclosure List</b>		
<i>Phenol, 4-methyl</i>	<i>68610-51-5</i>	<i>Not Listed</i>
<i>Isobutylene-Isoprene polymer</i>	<i>9010-85-9</i>	<i>Not Listed</i>
<i>Isoprene</i>	<i>78-79-5</i>	<i>1 %</i>
<i>1-Propene, 2-methyl-</i>	<i>115-11-7</i>	<i>Not Listed</i>
<i>MBTS</i>	<i>120-78-5</i>	<i>1 %</i>
<i>Ethylene propylene diene rubber</i>	<i>25038-36-2</i>	<i>Not Listed</i>
<i>TMDS</i>	<i>137-26-8</i>	<i>1 %</i>
<i>Formaldehyde</i>	<i>50-00-0</i>	<i>0.1 %</i>
<i>Calcium oxide</i>	<i>1305-78-8</i>	<i>1 %</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>1 %</i>
<i>Talc</i>	<i>14807-96-6</i>	<i>Not Listed</i>
<i>Zinc oxide</i>	<i>1314-13-2</i>	<i>1 %</i>
<i>Zinc oxide as Zinc compounds</i>		<i>Not Listed</i>
<i>Polybutene</i>	<i>9003-29-6</i>	<i>Not Listed</i>
<i>Sulfur</i>	<i>7704-34-9</i>	<i>Not Listed</i>
<i>ENB</i>	<i>16219-75-3</i>	<i>1 %</i>
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	<i>118-75-2</i>	<i>Not Listed</i>
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	<i>140-66-9</i>	<i>Not Listed</i>
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	<i>64742-52-5</i>	<i>Not Listed</i>
<b>Environment</b>		
<b>Canada - CEPA - Priority Substances List</b>		
<i>Phenol, 4-methyl</i>	<i>68610-51-5</i>	<i>Not Listed</i>
<i>Isobutylene-Isoprene polymer</i>	<i>9010-85-9</i>	<i>Not Listed</i>
<i>Isoprene</i>	<i>78-79-5</i>	<i>Not Listed</i>
<i>1-Propene, 2-methyl-</i>	<i>115-11-7</i>	<i>Not Listed</i>
<i>MBTS</i>	<i>120-78-5</i>	<i>Not Listed</i>
<i>Ethylene propylene diene rubber</i>	<i>25038-36-2</i>	<i>Not Listed</i>
<i>TMDS</i>	<i>137-26-8</i>	<i>Not Listed</i>
<i>Formaldehyde</i>	<i>50-00-0</i>	<b>Priority Substance List 2 (substance considered toxic)</b>

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Calcium oxide	1305-78-8	Not Listed
Carbon Black	1333-86-4	Not Listed
Talc	14807-96-6	Not Listed
Zinc oxide	1314-13-2	Not Listed
Zinc oxide as Zinc compounds		Not Listed
Polybutene	9003-29-6	Not Listed
Sulfur	7704-34-9	Not Listed
ENB	16219-75-3	Not Listed
p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

## United States

### Labor

#### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	1000 lb TQ
• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

#### U.S. - OSHA - Specifically Regulated Chemicals

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	2 ppm STEL (Irritant and potential cancer hazard, See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level ; 0.75 ppm TWA

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• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

## Environment

### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed

U.S. - California - Proposition 65 - Carcinogens List: Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity: Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MAD): Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL): Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female: Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male: Not Listed

## United States - Pennsylvania

### Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List: Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances: Not Listed

**Chemical Safety Assessment:** Chemical Safety Assessment is not required.

## \* Section 16. Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation/ last revision** 03/21/2007

(Contd. on page 17)

# Safety Data Sheet

acc. to OSHAHCS

Page 17/17

Article Number 104

Revision Number 2

Revision Date 23/1/2015

**Trade name:** Royal Edge Seam Tape, Royal Edge Cover Tape, Royal Edge Uncured Flashing with Tape, Royal Edge Pipe Boot with Tape, Royal Edge RPS with Tape, Re-Flex Cover Tape, Re-Flex Uncured Flashing with Tape, Re-Flex Pipe Boot with Tape, Re-Flex Seam Tape, Re-Flex TPO Cover Tape, Re-Flex TPO Corners with Tape.

(Contd. of page 16)

## **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*ELINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

End of SDS

## \* Section 1. Identification

**Product identifier:** Primer/Activator

- **Trade name:** Seam Tape Primer
- **Relevant identified uses of the substance or mixture:** Construction

### Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**

Roofing Products International, Inc.

57460 Dewitt St.

Elkhart, IN 46517-1078

- **Information department:** Technical Services Department

### Emergency telephone number

**ChemTrec:** UNITED STATES 1(800)424-9300 INTERNATIONAL 703-527-3887

## \* Section 2. Hazard(s) identification

### Classification of the substance or mixture



GHS02 Flame

Flam. Liq. 2

H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Repr. 2

H361 Suspected of damaging fertility or the unborn child.

STOT RE 2

H373 May cause damage to organs through prolonged or repeated exposure.

Asp. Tox. 1

H304 May be fatal if swallowed and enters airways.



GHS09 Environment

Aquatic Acute 1

H400 Very toxic to aquatic life.

Aquatic Chronic 1

H410 Very toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2

H315 Causes skin irritation.

Eye Irrit. 2A

H319 Causes serious eye irritation.

STOT SE 3

H336 May cause drowsiness or dizziness.

### Label elements

- **GHS label elements:** The product is classified and labeled according to the Globally Harmonized System (GHS).

### Hazard pictograms



GHS02



GHS07



GHS08



GHS09

- **Signal word:** Danger

**Tradename: Royal Edge Seam Tape Primer**

*(Contd. of page 1)*

**Hazard statements**

*Highly flammable liquid and vapor.  
Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child.  
May cause drowsiness or dizziness.  
May cause damage to organs through a single exposure. May be fatal if swallowed and enters airways.*

**Precautionary statements**

*If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use. Wear protective gloves and eye safety glasses.  
Keep away from heat/sparks/open flames. Do not smoke when handling or using material. Do not use in areas without proper ventilation. While using product, keep container tightly closed.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF IN EYES: Rinse cautiously with clean water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.  
Store in secure area.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Classification system**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



**Other hazards**

- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**\* Section 3. Composition/information on ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

<b>Dangerous Components</b>	<b>CAS Number</b>	<b>% by Weight</b>
heptane	142-82-5	25-50 %
toluene	108-88-3	25-50 %

**\* Section 4. First-aid measures**

**Description of first aid measures**

- **General information:**  
*Symptoms of poisoning may occur after several hours; therefore medical observation for at least 48 hours after the accident is recommended.*

*(Contd. on page 3)*

**Tradename: Royal Edge Seam Tape Primer**

(Contd. of page 2)

- **After inhalation:**  
*Remove victim to area off fresh air and seek medical attention. Supply fresh air. If required, provide artificial respiration. If breathing is difficult, give oxygen. Call a doctor immediately. Place patient in stable side position for transportation.*
- **After skin contact:**  
*Remove contaminated clothing and immediately wash affected area with soap and water. Rinse affected area with clean water for 15 minutes. Wash clothing before reuse. Contact a physician.*
- **After eye contact:**  
*Rinse opened eye for several minutes under clean running water. Contact a physician.*
- **After swallowing:**  
*Seek medical treatment immediately. Call a poison center or physician. Remove any dentures. Wash out mouth with clean water. and drink 1-2 glasses of water but don not induce vomiting. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed, product can enter lungs and cause damage. If vomiting occurs the head should be kept low to prevent vomit from entering lungs. If unconscious, place in recovery position and get immediate medical attention. Do not give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing to provide unrestricted breathing.*

**Most important symptoms and effects, both acute and delayed**

- **Eye Contact:**  
*Causes serious eye injury.*
- **Inhalation:**  
*Harmful if inhaled. Can cause central nervous system depression. May cause drowsiness and dizziness.*
- **Skin Contact:**  
*Causes skin irritation.*
- **Ingestion:**  
*Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat, and stomach.*

**Over-exposure signs and symptoms**

- **Eye Contact:**  
*Adverse symptoms may include the following. Pain or irritation. Redness and watering of the eyes.*
- **Inhalation:**  
*Adverse symptoms may include the following. Nausea or vomiting, headache with drowsiness or fatigue. Dizziness with disorientation and vertigo. Unconsciousness.*
- **Skin Contact:**  
*Adverse symptoms include the following. Irritation and redness.*
- **Ingestion:**  
*Adverse symptoms may include the following. Nausea and/or vomiting.*

**Indication of any immediate medical attention and special treatment needed**

- **Information for Physician:**  
*If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.*
- **Specific treatments:**  
*Treat symptomatically and supportively.*
- **Protection of first aiders:**  
*No action shall be taken involving any personal risk or without suitable training.*

**\* Section 5. Fire-fighting measures**

**Extinguishing media**

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water and water with full jet

(Contd. on page 4)

Tradename: **Royal Edge Seam Tape Primer**

(Contd. of page 3)

### **Advice for firefighters**

- **Protective equipment:**  
Mouth respiratory protective device.  
Protective clothing and respiratory protective device.

## \* **Section 6. Accidental release measures**

### **Personal precautions, equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**  
Do not allow product to enter sewage system, ground water, workpits, cellars or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste in accordance with federal state and local regulations.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents.

### **Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## \* **Section 7. Handling and storage**

- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Wear personal protective equipment.  
Wash thoroughly after handling.  
Open and handle receptacle with care.  
Do not use air pressure to unload containers.  
Keep container tightly closed.  
Do not breath vapors or spray mist.
- **Information about protection against explosions and fires:**  
Use explosion proof equipment. Keep away from ignition sources. Do not smoke. Bond and ground containers. Although bonded and grounded, static electricity may accumulate. Use only non-sparking tools.  
Protect against electrostatic charges.  
Keep respiratory protective device available.

### **Advice on general occupational hygiene**

Do not eat, drink, or smoke in areas where this product is being handled, stored, or processed.  
Workers should wash face and hands before eating, drinking or smoking.  
Remove protective clothing and equipment before entering eating areas.

### **Conditions for safe storage, including any incompatibilities**

Store as a flammable liquid in a cool, segregated, approved area in accordance with local regulations.  
Store in secured area away from imcompatible materials and food and drink.  
Eliminate all ignition sources. Separate from oxidizing materials.  
Material must be stored in original containers tightly closed and sealed.  
Store containers upright to prevent spillage.  
Do not store in unlabeled containers.

(Contd. on page 5)



**Tradename: Royal Edge Seam Tape Primer**

*(Contd. of page 4)*

**\* Section 8. Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

Name of Ingredients		CAS Number		
Heptane	25-50%	142-82-5	PEL	Long-term value: 2000 mg/m <sup>3</sup> , 500 ppm
			REL	Short-term value: C 1800* mg/m <sup>3</sup> , C 440* ppm
				Long-term value: 350 mg/m <sup>3</sup> , 85 ppm
				* 15-min
			TLV	Short-term value: 2050 mg/m <sup>3</sup> , 500 ppm
				Long-term value: 1640 mg/m <sup>3</sup> , 400 ppm
Toluene	25-50%	108-88-0	PEL	Short-term value: C 300; 500* ppm
				Long-term value: 200 ppm
				* 10-min peak per 8-hr shift
			REL	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm
				Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
			TLV	Long-term value: 75 mg/m <sup>3</sup> , 20 ppm
				BEI

**Ingredients with biological limit values:**

Toluene	25-50%	108-88-0	BEI	0.02 mg/L
				Medium: blood
				Time: prior to last shift of work week
				Parameter: Toluene
				0.03 mg/L
				Medium: urine
				Time: end of shift
				Parameter: Toluene
				0.3 mg/g creatinine
				Medium: urine
				Time: end of shift
				Parameter: 0-Cresol with hydrolysis (background)

- **Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls**

**Personal protective equipment (see listings below)**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of the work day.  
Avoid contact with the eyes and skin.  
Store protective clothing separately.

- **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance and the preparation. Check with glove manufacturer for data regarding chemical resistance.

*(Contd. on page 6)*

**Tradename: Royal Edge Seam Tape Primer**

*(Contd. of page 5)*

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.

- **Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Safety glasses

Safety glasses with side shields should be worn. If splashes are likely to occur, wear goggles or a full face mask. Do not wear contact lenses. Eye wash stations and safety showers should be close to workstation.

- **Skin and body protection:**

Wear solvent resistant apron and boots. Material should be antistatic and flame resistant.

**\* Section 9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

- **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Black
<b>Odor:</b>	Characteristic
<b>Odor Threshold:</b>	Not determined
<b>pH-value:</b>	Not determined

**Change in condition**

• <b>Melting point/Melting Range</b>	Undetermined
• <b>Boiling point/Boiling Range</b>	98°C (208°F)
• <b>Flash point:</b>	-4° C (25°F)
• <b>Ignition temperature:</b>	215 °C (419 °F)
• <b>Auto igniting:</b>	Not selfigniting
• <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
• <b>Flammable limits:</b>	
<b>Lower:</b>	1.1 Vol %
<b>Upper:</b>	7.0 Vol %
• <b>Vapor pressure at 20 °C (68 °F):</b>	48 hPa (36 mm Hg)
• <b>Specific gravity at 20 °C (68 °F):</b>	0.791 g/cm <sup>3</sup> (6.601 lbs/gal)
• <b>Relative density:</b>	Not determined
• <b>Vapor density:</b>	Not determined
• <b>Evaporation rate:</b>	Not determined
• <b>Partition coefficient (n-octanol/water: gravity):</b>	Not determined
• <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.

**Tradename: Royal Edge Seam Tape Primer**

*(Contd. of page 6)*

**Solvent content**

- **Organic solvents:** **83.0%**
- **Solids content:** **17.0%**
- **Other information** VOC: = 5.51 lbs/gal or 660 g/l  
Weight per gallon: = 6.58 lbs/gal

**\* Section 10. Stability and reactivity**

- **Reactivity:**  
*Not expected to be explosive, self-reactive or self-heating under normal conditions.*

**Chemical stability**

- **Thermal decomposition/conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions:**  
*No further information is available.*
- **Conditions to avoid:**  
*Heat, open flames, and sparks.*  
*Do not allow vapor to accumulate in low or confined areas*  
*Do not pressurize, cut, weld, braze, drill, or grind on containers.*  
*Situations conducive to the build up of static electricity.*
- **Incompatible materials:**  
*Acids, aldehydes, alkalis, amines, ammonia, oxidizing agents.*
- **Hazardous decomposition products:**  
*Oxides of carbon, nitrogen and hydrocarbons, hydrogen bromide (thermal degradation products). Hydrocarbons*

**\* Section 11. Toxicological information**

**Information on toxicological effects**

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification**

<b>108-88-3 Toluene</b>		
Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

- **Primary irritant effect**
- **On the skin:** *Skin irritant.*
- **On the eye:** *Irritating effect. Vapors may be irritating to the eyes.*
- **Sensitization:** *No sensitizing effects known.*
- **Additional toxicological information:**  
*The product shows the following dangers according to internally approved calculation methods for preparations.*  
*Irritant.*
- **Carcinogenic categories**

**IARC (International agency for Research on Cancer)**

108-88-3	toluene	3
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Tradename: Royal Edge Seam Tape Primer

(Contd. of page 7)

9016-87-9 diphenylmethanediisochyanate, isomeres and homologues

3

• **NTP (National Toxicology Program)**

None of the ingredients is listed.

\* **Section 12. Ecological information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information.
- **Persistence and degradability:** No further relevant information.

**Behavior in environmental systems**

- **Biocummulative potential:** No further relevant information.
- **Mobility in soil:** No further relevant information.

**Ecotoxicial effects**

- **Remarks:** Very toxic to fish.

**Additional ecological information**

- **General notes:** At present there are no ecotoxicological assessments.

**Results of PBT and vPvB assessments**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information.

\* **Section 13. Disposal considerations**

**Wastetreatment method**

- **Recommendation:**

The generation of waste should be avoided or minimized whenever and wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental and waste disposal legislation and all local, regional, and federal authority requirements. Dispose of surplus and non-recyclable products thru a licensed waste disposal contractor. Waste should not be allowed to enter streams, lakes, sewer systems, or other open waterways. Waste packaging should be recycled. This material and its containers that have not been cleaned or rinsed out may contain product residues or vapors that are highly flammable and may explode. Do not cut, weld, or grind used containers. Do not dispose with household garbage. Any contaminated cleaning materials used with this product must be properly disposed and treated as flammable materials unless they have been thoroughly washed and clean of any product or residue. Do not allow product to reach sewage system.

**Uncleaned packagings**

- **Recommendation:** Disposal must be made in compliance with local, state, regional, and federal regulations.

\* **Section 14. Transportation information**

**UN-Number**

- **DOT, ADR, IMDG, IATA** UN1133

**UN proper shipping name**

- **DOT, IMDG, IATA** Adhesives
- ADR** 1133 Adhesives, Environmentally Hazardous

(Contd. on page 9)

Tradename: Royal Edge Seam Tape Primer

(Contd. of page 8)

**Transport hazard classes**

• **DOT**



- **Class** 3 Flammable liquids.
- **Label** 3

• **ADR, IMDG**



- **Class** 3 Flammable liquids.
- **Label** 3

• **IATA**



- **Class** 3 Flammable liquids.
- **Label** 3

**PACKING GROUP**

- **DOT, ADR, IMDG, IATA** II

- **Environmental hazards:** Product contains environmentally hazardous substances: heptane
- **Marine pollutant:** Symbol (fish and tree)
- **Special Marking (ADR)** Symbol (fish and tree)

- **Special precautions for user** Warning: Flammable liquids

- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable

**Transport/Additional information**

- **DOT**
- **Remarks:** Special marking with the symbol (fish and tree)

- **UN "Model Regulation":** UN II33, Adhesives, Environmentally Hazardous, 3, II

\* **Section 15. Regulatory information**

Safety, health and environmental regulations/legislation specific for the substance or mixture.

• **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

**Tradename: Royal Edge Seam Tape Primer**

*(Contd. of page 9)*

108-88-3	toluene
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues

**• TSCA (Toxic Substances Control Act):**

*All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.*

**Proposition 65**

**• Chemicals known to cause cancer:**

*None of the ingredients listed.*

**• Chemicals known to cause reproductive toxicity:**

108-88-3	toluene.
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**(DSL) Canada Domestic Substance List**

*All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.*

**Cancerogenity categories**

**• EPA (Environmental Protection Agency)**

142-85-5	heptane	D
108-88-3	toluene	CBD
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	II

**• TLV (Threshold Limit Value established by ACGIH)**

108-88-3	toluene	A4
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**• MAK (German Maximum Workplace Concentration)**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	4
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**• NIOSH-Ca (National Institute for Occupational Safety and Health)**

*None of the ingredients is listed.*

**• OSHA-Ca (Occupational Safety & Health Administration)**

*None of the ingredients is listed.*

**• National regulations**

**• Water hazard class:** *Water hazard class 2 (Self-assessment): hazardous for water.*

**• Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

**\* Section 16. Other information**

*Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.*

**• Department issuing SDS:** *Technical Services Department*

**• Creation Date:** *03/28/2003*

**• Date of preparation/ last revision** *02/27/2014 / 4*

**Tradename: Royal Edge Seam Tape Primer**

(Contd. of page 10)

• **Abbreviations and acronyms:**

*RIP: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).*

*ICAO: International Civil Aviation Organization*

*IDMG: International Mairtime Code for Dangerous Goods*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: Very Persistent and very Bioaccumulative*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

*Asp. Tox. 1: Aspiration hazard, Hazard Category 1*

*Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1*

*Aquatic Chronic 1: Hazrdous to the aquatic environment - Chronic Hazard, Category 1*

*End of SDS*



## Safety Data Sheet

acc. to OSHA HCS

Article Number 106

Revision Number 2

Revision Date 23/1/2015

### \* Section 1. Identification

**Product identifier:** EPDM Pipe Boot

- **Trade name:** Royal Edge EPDM Pipe Boot, Re-Flex EPDM Pipe Boot
- **Relevant identified uses of the substance or mixture:** Construction

**Details of the supplier of the safety data sheet Manufacturer/Supplier:**

Roofing Products International, Inc.

57460 Dewitt St.

Elkhart, IN 46517-1078

Telephone: 1-574-293-9096

Information Department: Technical Services Department

**Emergency telephone number:**

Chemtrec United States 1(800) 424-9300 International 703-527-3887

### \* Section 2. Hazard(s) Identification

#### EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

- **CLP:** Not Classified
- **DSD/DLP:** Not Classified

#### LABEL ELEMENTS

- **CLP:** Hazard Statements: No Label Elements Required
- **DSD/DLP:** Risk Phrases: No Label Elements Required

#### OTHER HAZARDS

- **CLP:** This product is exempt from CLP/REACH obligations as an article as specified in REACH (1907/2006) and related ECHA guidance.
- **DSD/DPD:** Under European Directive 1999/45/EC these products are considered exempt and considered manufactured article(s) under stated normal conditions of use.

#### UNITED STATES (US)

According to OSHA 29 CFR 1910.1200 HCS

#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

- **OSHA HCS 2012:** Not Classified

#### LABEL ELEMENTS

- **OSHA HCS 2012:** Not Classified
- **Hazard Statements:** No label element(s) required

#### OTHER HAZARDS

- **OSHA HCS 2012:** Under United States Regulations (29 CFR 1910.1200-Hazard Communication Standard) this product is exempt as an article under stated normal conditions of use.

#### CANADA

According to WHMIS

#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

- **WHMIS:** Not Classified

#### LABEL ELEMENTS

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- **WHMIS:** Not Classified
- **WHMIS:** No label element(s) required

## OTHER HAZARDS

- **WHMIS:** Under Canadian Regulations Workplace Hazardous Materials Information System (WHMIS) Hazardous Products Act (HPA,) Section 11 (1.), these product(s) are exempt as an article under stated normal conditions of use.

## OTHER INFORMATION

This material, as an article, does not legally require an SDS. See Section 12 for Ecological Information

## \* Section 3. Composition/Information on Ingredients

### Substances

This material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

- **Mixtures**

Composition					
Chemical Name	Identifiers	LD50/LC50	%	Classifications according to Regulation/Directive	Comments
Non-Hazardous Components	NA	NA	100%	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: None	NA

See Section 11 for Toxicological information

## \* Section 4. First-Aid Measures

### Description of first aid measures

- **Inhalation:** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If symptoms/signs of difficulty breathing develop, move person to fresh air. Administer oxygen if breathing is difficult. If breathing stops, give artificial respiration and seek immediate medical attention.
- **Skin Contact:** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Wash skin with soap and water. If signs of irritation develop, seek medical attention.
- **After eye contact:** First aid is not expected to be necessary if material is used as recommended under normal conditions. Check for and remove contact lenses. Rinse opened eye with clean, running water. Seek medical attention.
- **After Ingestion:** First aid is not expected to be necessary if material is used as recommended under normal conditions. If signs/symptoms develop seek medical attention.

### Most important symptoms and effects, both acute and delayed

Refer to Section 11- Toxicological Information.

- **Indication of any immediate medical attention and special treatment needed**

Notes to physician: All symptoms should be based upon observed signs and symptoms of distress by patient. Consideration should be given that the patient may have been exposed and is reacting from overexposure to materials other than this product. Call a Physician immediately.

## \* Section 5. Fire-Fighting Measures

### Extinguishing media

- **Suitable extinguishing agents:** Water, sand, extinguishing powder, or foam.
- **For safety reasons unsuitable extinguishing agents:**

None known

### Special hazards arising from the substance or mixture.

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- **Unusual fire and explosion conditions:** Does not present and special fire or explosion hazards.
- **Hazardous Thermal Decomposition Products:** Upon reaching temperatures of combustion, material produces toxic and/or corrosive fumes.

### Advise for Firefighters

- **Protective equipment:** Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face operated in positive pressure mode. Structural firefighters protective clothing will only provide limited protection.

## \* Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

- **Personal precautions:** No special precautions are expected to be necessary if material is used as recommended under normal conditions.
- **Emergency procedures:** No emergency procedures are expected to be necessary if material is used as recommended under normal conditions.
- **Environmental precautions:** No special precautions are necessary.

### Methods and material for containment and clean-up

**Containment and clean-up measures:** Pick up pieces and place in bag or container for disposal.

### Reference to other sections

Refer to section 8- Exposure Controls and Personal Protection and Section 13- Disposal Considerations.

## \* Section 7. Handling and Storage

### Precautions for safe handling

- **Handling:**  
Ensure proper air ventilation/exhaust at the workplace. Under normal handling conditions, protective gloves, glasses, and clothing are adequate.

### Conditions for safe storage, including any incompatibilities

- **Storage:** Store in cool, dry, well ventilated place

### Specific end use(s)

Refer to Section 1. relevant identified use (s).

## \* Section 8. Exposure Controls/Personal Protection

### Control parameters

- **Exposure Limits/Guidelines:** No exposure guideline/limits available for the material or the components.

### Exposure controls

- **Engineering measures/Controls:** Under normal conditions, special ventilation is not required.

### Personal Protective Equipment

- **Respiratory:** Respiratory protection is not required under normal conditions of use.
- **Eye/Face:** Under normal conditions of use, eye protection is not required.
- **Skin/Body:** Under normal conditions of use, skin protection is not required.

### Environmental Exposure Controls

Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH=American Conference of Governmental Industrial Hygiene NIOSH

= National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages based on 8hr/day, 40h/week exposures

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## \* Section 9. Physical and Chemical Properties

### • Information on basic physical and chemical properties

Material Description			
Physical Form	Solid	Appearance/Description	Black or White solid with slight rubber odor
Color	Black or White	Odor	Slight rubber odor
General Properties			
Odor Threshold	No Data		
Boiling Point	Not relevant	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	> 1 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties:	Not relevant		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant		
Flammability			
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Not relevant
Flammability (solid, gas)	Not relevant		
Environmental	No additional physical and chemical parameters noted.		
Octanol/Water Partition coefficient	Data lacking		

## \* Section 10. Stability and Reactivity

- **Reactivity:** No dangerous reactions known when used as recommended under normal conditions.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** Hazardous polymerization will not occur
- **Conditions to avoid:** Avoid open flames, sparks, and other sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Thermal decomposition could produce CO, CO<sub>2</sub>, sulphur oxides and oxides of nitrogen

## \* Section 11. Toxicological Information

- **Information on toxicological effects**
- **Material information:** This material is an article that does not release or otherwise result in exposure to a hazardous chemical when used as recommended under normal conditions. The information provided below is for components only and is not expected to be applicable to the material as a whole.

GHS Properties	Classification
• Acute Toxicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant
• Germ Cell Mutagenicity	EU/CLP • Not relevant OSHA HCS 2012 • Not relevant

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• <b>Skin Corrosion/irritation</b>	<i>EU/CLP • Not relevant OSHA HCS 2012 • Not relevant</i>
• <b>Skin Sensitization</b>	<i>EU/CLP • Not relevant OSHA HCS 2012 • Not relevant</i>
• <b>STOE-RE</b>	<i>EU/CLP • Not relevant OSHA HCS 2012 • Not relevant</i>
• <b>STOT-SE</b>	<i>EU/CLP • Not relevant OSHA HCS 2012 • Not relevant</i>
• <b>Toxicity for Reproduction</b>	<i>EU/CLP • Not relevant OSHA HCS 2012 • Not relevant</i>
• <b>Respiratory Sensitization</b>	<i>EU/CLP • Not relevant OSHA HCS 2012 • Not relevant</i>
• <b>Serious Eye Damage/Irritation</b>	<i>EU/CLP • Not relevant OSHA HCS 2012 • Not relevant</i>
• <b>Potential Health Effects</b>	
• <b>Skin</b>	
• <b>Acute (Immediate)</b>	<i>Under normal conditions of use, no health effects are expected.</i>
• <b>Chronic (Delayed)</b>	<i>Under normal conditions of use, no health effects are expected.</i>
• <b>Eye</b>	
• <b>Acute (Immediate)</b>	<i>Under normal conditions of use, no health effects are expected.</i>
• <b>Chronic (Delayed)</b>	<i>Under normal conditions of use, no health effects are expected.</i>
• <b>Ingestion</b>	
• <b>Acute (Immediate)</b>	<i>Under normal conditions of use, no health effects are expected.</i>
• <b>Chronic (Delayed)</b>	<i>Under normal conditions of use, no health effects are expected.</i>
• <b>Inhalation Acute</b>	
• <b>(Immediate)</b>	<i>Under normal conditions of use, no health effects are expected.</i>
• <b>Chronic (Delayed)</b>	<i>Under normal conditions of use, no health effects are expected.</i>
• <b>Reproductive Effects</b>	<i>No Reproductive effects expected.</i>

## \* Section 12. Ecological Information

### Toxicity

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

### Behavior in environmental systems

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

### Ecotoxicological effects

- **Remark:** No further relevant information available.

### Additional ecological information

*General notes: At present there are no ecotoxicological assessments.*

### Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

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**\* Section 13. Disposal Considerations**

**Waste treatment methods**

- **Product waste**
- **Recommendation:** Dispose of waste product and/or container according to local, regional, state, and national/international regulations.

**Packaging waste**

- **Recommendation:** Dispose of packaging or container according to local, regional, state, and national/international regulations.

**\* Section 14. Transport Information**

	<i>UN number</i>	<i>UN proper shipping name</i>	<i>Transport hazard class(es)</i>	<i>Packing group</i>	<i>Environmental hazards</i>
<i>DOT</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>TDG</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>IMO/IMDG</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>ADN</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>ADR/RID</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>IATA/ICAO</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>

- **Special precautions for user**  
*None known.*
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
*None known.*

**\* Section 15. Regulatory Information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **SARA Hazard Classifications:** *None*
- **Labor**

• **Canada - WHMIS - Classifications of Substances:** *Not Listed*

• **Canada - WHMIS - Ingredient Disclosure List:** *Not Listed*

• **Environment**

• **Canada - CEPA - Priority Substances List:** *Not Listed*

**United States**

• **Labor**

*U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals: Not Listed*

**Environment**

*U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants: Not Listed*

*U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities: Not Listed*

*U.S. - CERCLA/SARA - Radionuclides and Their Reportable : Not Listed*

*U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs: Not Listed*

*U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs: Not Listed*

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U.S. - CERCLA/SARA - Section 313 - Emission Reporting: Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical: Not Listed

## United States - California

### • Environment

U.S. - California - Proposition 65 - Carcinogens List: Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity: Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MAD): Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL): Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female: Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male: Not Listed

## United States - Pennsylvania

### • Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List: Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances: Not Listed

**Chemical Safety Assessment:** Chemical Safety Assessment is not required.

## \* Section 16. Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation/ last revision** 23/1/2015

### • Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

End of SDS



**\* Section 1. Identification**

**Product identifier:** EPDM Pipe Boot with Tape

- **Tradename:** Royal Edge Pipe Boot with Tape, Re-Flex EPDM Pipe Boot with Tape
- **Relevant identified uses of the substance or mixture:** Construction

**Details of the supplier of the safety data sheet Manufacturer/Supplier**

Roofing Products International, Inc.

57460 Dewitt St.

Elkhart, IN 46517-1078

Telephone: 1-574-293-9096

Information Department: Technical Services Department

**Emergency telephone number**

Chemtrec United States 1(800) 424-9300 International 703-527-3887

**\* Section 2. Hazard(s) Identification**

**EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

**Classification of the substance or mixture**

- **CLP** Skin Irritation 2 - H315 Skin  
Sensitization 1 - H317
- **DSD/DPD** Irritant (Xi)  
Sensitizer  
R38, R43

**Label Elements**

- **CLP**

**WARNING**



**Hazard statements**

H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction

**Precautionary statements**

- **Prevention**  
P261 - Avoid breathing dust/fume.  
P264 - Wash thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- **Response**  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P321 - Specific treatment, see supplemental first aid information.  
P362 - Take off contaminated clothing and wash before reuse.
- **Storage/Disposal**  
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

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- **DSD/DPD**



- **Risk phrases**

R38 - Irritating to skin.  
R43 - May cause sensitisation by skin contact.

- **Safety phrases**

S24 - Avoid contact with skin.  
S37 - Wear suitable gloves.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### Other Hazards

- **CLP** According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- **DSD/DPD** According to European Directive 1999/45/EC this preparation is considered dangerous.

### United States (US)

- According to OSHA 29 CFR 1910.1200 HCS

### Classification of the substance or mixture

- **OSHA HCS 2012** Skin Irritation 2 - H315  
Skin Sensitization 1A - H317

### Label elements

- **OSHA HCS 2012**

## WARNING



- **Hazard statements**

Causes skin irritation - H315  
May cause an allergic skin reaction - H317

- **Precautionary statements**

- **Prevention**

Avoid breathing dust/fume. - P261  
Wash thoroughly after handling. - P264  
Contaminated work clothing should not be allowed out of the workplace.- P272  
Wear protective gloves/protective clothing/eye protection/face protection.- P280

- **Response**

If skin irritation occurs: Get medical advice/attention. - P332+P313  
IF ON SKIN: Wash with plenty of soap and water. - P302+P352  
Specific treatment, see supplemental first aid information. - P321  
If skin irritation or rash occurs: Get medical advice/attention. - P333+P313  
Take off contaminated clothing and wash before reuse. - P362

- **Storage/Disposal**

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

### Other hazards

- **OSHA HCS 2012** Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

### Canada

- According to WHMIS

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## Classification of the substance or mixture

- **WHMIS** Other Toxic Effects - D2B

## Label elements

- **WHMIS** Other Toxic Effects - D2B



## Other hazards

- **WHMIS** In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

## \* Section 3. Composition/Information on Ingredients

- **Substances** Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

<b>Mixtures</b>		<b>Composition</b>			
<i>Chemical Name</i>	<i>Identifiers</i>	<i>%</i>	<i>LD50/LC50</i>	<i>Classifications According to Regulation/Directive</i>	<i>Comments</i>
Resin	NDA	4% TO 13%	NDA	<i>EU DSD/DPD: Self Classified: Xi R36/37/38 EU CLP: Self Classified: Eye Irrit. 2A, H319; Skin Irrit. 2, H315; STOT SE 3 - Resp., H335 OSHA HCS 2012: Eye Irrit. 2A; Skin Irrit. 2; STOT SE 3 - Resp.</i>	NDA
Talc	CAS:14807-96-6 EC Number:238-877-9	0% TO 6%	NDA	<i>EU DSD/DPD: Self Classified: Xn R48/20 EU CLP: Self Classified: STOT RE 1, H372 OSHA HCS 2012: STOT RE 1 (Lungs)</i>	NDA
Calcium oxide	CAS:1305-78-8 EC Number:215-138-9	1% TO 5%	NDA	<i>EU DSD/DPD: Self Classified: C R34 EU CLP: Self Classified: Skin Corr. 1C, H314; Eye Dam. 1, H318 OSHA HCS 2012: Skin Corr. 1C; Eye Dam. 1 EU</i>	NDA
Phenol, p-(1,1,3,3-tetramethylbutyl)-	CAS:140-66-9 EINECS:205-426-2	2% TO 4%	Skin-Rabbit LD50 1880 mg/kg Ingestion/Oral Rat LD50 > 2000 mg/kg	<i>EU DSD/DPD: Annex I: Xi R38-41; N R50-53 EU CLP: Annex VI: Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Eye Irrit. 2A; Skin Irrit. 2; Repr. 2</i>	NDA
Mineral oil, petroleum distillates, hydro-treated (mild) heavy naphthenic	CAS:64742-52-5 EC Number:265-155-0	0% To 4%	NDA	<i>EU DSD/DPD: Annex I: Carc. 2; R45 EU CLP: Annex VI: Carc. 1B, H350 OSHA HCS 2012: Skin Irrit. 2</i>	NDA
Carbon Black	CAS: 1333-86-4 ECNumber: 215- 609-9	1% To 4%	Skin-Rabbit LD50 >3 g/kg Ingestion/Oral-Rat LD50 >15400 mg/kg	<i>EU DSD/DPD: None EU CLP: None OSHA HCS 2012: Carc. 2</i>	NDA

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Zinc oxide	<b>CAS:</b> 1314-13-2 <b>EC Number:</b> 215- 222-5	0.5% To 2.5%	NDA	<b>EU DSD/DPD:</b> Annex I: N; R50-53 <b>EU CLP:</b> Annex VI: Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2B	NDA
p-Benzoquinone, 2,3, 5,6-tetrachloro-	<b>CAS:</b> 118-75-2 <b>EC Number:</b> 204- 274-4	0% To 1.5%	Ingestion/Oral-Rat LD50 • 4 g/kg	<b>EU DSD/DPD:</b> Annex I: Xi R36/38 N R50-53 <b>EU CLP:</b> Annex VI: Eye Irrit. 2, H319; Skin Irrit. 2, H315; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; STOT RE 3: Resp. Irrit. & Narc.; Acute Tox. 4 (Inhl)	NDA
TMDS	<b>CAS:</b> 137-26-8 <b>EC Number:</b> 205-286-2	0% To 1%	Ingestion/Oral-Rat LD50 • 560 mg/kg  Inhalation-Rat LC50 500 mg/m <sup>3</sup> 4 Hour(s)	<b>EU DSD/DPD:</b> Annex I: Xn R20/22 - 48/22 Xi R36/38; R43 N R50-53 <b>EU CLP:</b> Annex VI: Acute Tox. 4, H332; Acute Tox. 4, H302; STOT RE 2, H373; Eye Irrit. 2, H319; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1A; Acute Tox. 4 (Oral); Acute Tox. 2 (Inhl)	NDA
MBTS	<b>CAS:</b> 120-78-5 <b>EC Number:</b> 204-424-9	0% To 1%	Ingestion/Oral-Rat LD50 >12 g/kg  Skin-Rabbit LD50 >7940 mg/kg	<b>EU DSD/DPD:</b> Annex I: R31 R43 N; R50-53 <b>EU CLP:</b> Annex VI: Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Skin Sens. 1A	NDA

Refer to Section 11 for Toxicological Information.

## \* Section 4. First-Aid Measures

- **Inhalation** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- **Skin** Remove material from skin with waterless hand cleaners followed by washing with soap and water. If signs/symptoms develop, get medical attention.
- **Eye** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- **Ingestion** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

### Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

### Indication of any immediate medical attention and special treatment needed

#### • Note to physician

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

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## \* Section 5. Fire-Fighting Measures

### **Extinguishing media**

- **Suitable Extinguishing Media:** Water, foam, dry chemical, carbon dioxide (CO<sub>2</sub>).
- **Unsuitable Extinguishing Media:** None known.

### **Special hazards arising from the substance or mixture**

- **Unusual Fire and Explosion Hazards:** Material releases toxic and corrosive gases/vapors when burned.
- **Hazardous Combustion Products:** Nitrous oxides, sulfur oxides, carbon oxides.

### **Advice for firefighters**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

## \* Section 6. Accidental Release Measures

### **Personal precautions, protective equipment and emergency procedures**

- **Personal Precautions** *No special precautions expected to be necessary if material is used under ordinary conditions as recommended.*
- **Emergency Procedures** *No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures.*

### **Environmental precautions**

*No special precautions necessary.*

### **Methods and material for containment and cleaning up**

- **Containment/Clean-up Measures** *Pick up pieces and place in container or bag for disposal.*

### **Reference to other sections**

*Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.*

## \* Section 7. Handling and Storage

### **Precautions for safe handling**

- **Handling** *Do not handle at temperatures in excess of 130° F. Avoid prolonged or repeated contact with the skin. Use good safety and industrial hygiene practices. Product readily removed from the skin with waterless hand cleaners followed by washing with soap and water.*

### **Conditions for safe storage, including any incompatibilities**

- **Storage** *Store in a cool, dry place. Do not store at temperatures in excess of 130° F.*
- **Specific end uses** *Refer to Section 1.2 - Relevant identified uses.*

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## \* Section 8. Exposure Controls/Personal Protection

Exposure Limits/Guidelines						
	Result	ACGIH	Belgium	Canada Alberta	Canada British Columbia	Canada Manitoba
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	Not Established	1 ppm Ceiling; 1.3 mg/m <sup>3</sup> Ceiling	1 ppm Ceiling	0.3 ppm Ceiling
	TWAs	Not Established	Not Established	207'ro 'VY C= '2Q 'o i lo 5'VY C	0.3 ppm TWA	Not established
TMDS *359/48/+	TWAs	207'o i lo 5'VY C" *pj cixdrg'htcevkqp" cpf 'xcrqt+	207'o i lo 5'VY C" *cgt quql'cpf 'xcrqt =" 2027'ro 'VY C" *cgt quql'cpf 'xcrqt +	3'o i lo 5'VY C	3'o i lo 5'VY C	207'o i lo 5'VY C" *pj cixdrg'htcevkqp cpf 'xcrqt+
Talc *36: 29/; 8/8+	TWAs	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA *gur kcdrg particulate)"	2 mg/m <sup>3</sup> TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate)	2 mg/m <sup>3</sup> TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)
3/Rt qrgpg.'4/ methyl-*337/33/9+	TWAs	472'ro 'VY C"*kngf" wpf gt 'Dwpggu 'cm' kuqo gt u+	472'ro 'VY C= 7: 5'o i lo 5'VY C	Not Established	Not Established	472'ro 'VY C *kngf 'wpf gt Dwpggu 'cm'kuqo gt u+
ENB (16219-75-3)	Ceilings	5 ppm Ceiling	Not Established	5 ppm Ceiling; 25 mg/m	5 ppm ceiling	5 ppm Ceiling
Sulfur (7704-34-9)	TWAs	Not established	Not established	10 mg/m <sup>3</sup> TWA	Not established	Not established
Zinc oxide (1314-13-2)	STELs	10 mg/m <sup>3</sup> STEL (respirable fraction)	10 mg/m <sup>3</sup> STEL (fume)	10 mg/m <sup>3</sup> STEL (respirable)	10 mg/m <sup>3</sup> STEL (respirable)	10 mg/m <sup>3</sup> STEL (respirable fraction)
	TWAs	2 mg/m <sup>3</sup> TWA (respirable fraction)	0 mg/m <sup>3</sup> TWA (dust); 5 mg/m <sup>3</sup> TWA (fume)	2 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable fraction)
Carbon Black (1333-86-4)	TWAs	3 mg/m <sup>3</sup> TWA (inhalable fraction)	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA	3 mg/m <sup>3</sup> TWA (inhalable)	3 mg/m <sup>3</sup> TWA (inhalable fraction)

### Exposure Limits/Guidelines Continued

	Result	Canada New Brunswick	Canada Nunavut	Canada Nova Scotia	Canada Northwest Territories	Canada Ontario
Formaldehyde (50-00-0)	STELs	1.5 ppm STEL	Not established	Not established	Not established	1.0 ppm STEL
	TWAs	0.5 ppm TWA	Not established	Not established	Not established	Not established
	Ceilings	Not established	2 ppm Ceiling; 2.4 mg/m <sup>3</sup> Ceiling	0.3 ppm Ceiling	2 ppm Ceiling; 2.4 mg/m <sup>3</sup> Ceiling	1.5 ppm Ceiling
	TWAs	5 mg/m <sup>3</sup> TWAEV	1 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA
TMDS (137-26-8)	STELs	Not established	Not established	10 mg/m <sup>3</sup> STEL	Not established	Not established
	Ceiling	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
	TWAs	3 mg/m <sup>3</sup> TWAEV (respirable dust)	2 mg/m <sup>3</sup> TWA (respirable fraction)	20 mppcf TWA	2 mg/m <sup>3</sup> TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established

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1-Propene, 2-methyl- (115-11-7)	TWAs	Not established	Not established	250 ppm TWA (listed under Butenes, all isomers)	Not established	250 ppm TWA (listed under Butenes, all isomers)
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (fume)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)
	TWAs	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, dust); 5 mg/m3 TWA (fume)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable fraction)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3 mg/m3 TWA (inhalable fraction)	3.5 mg/m3 TWA	3.5 mg/m3 TWA
	STELs	Not established	7 mg/m3 STEL	Not established	7 mg/m3 STEL	Not established

### Exposure Limits/Guidelines Continued

	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	NIOSH	OSHA
Formaldehyde (50-00-0)	STELs	Not established	Not established	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	Ceilings	2 ppm Ceiling; 3 mg/m3 Ceiling	Not established	2 ppm Ceiling; 3 mg/m3 Ceiling	0.1 ppm Ceiling (15 min)	Not established
	TWAs	Not established	Not established	Not established	0.016 ppm TWA	0.75 ppm TWA
TMDS (137-26-8)	TWAs	5 mg/m3 TWAEV	1 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA
	STELs	Not established	Not established	10 mg/m3 STEL	Not established	Not established
	Ceiling	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
Talc (14807-96-6)	TWAs	3 mg/m3 TWAEV (respirable dust)	2 mg/m3 TWA (respirable fraction)	20 mppcf TWA	2 mg/m3 TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established
Isoprene (78-79-5)	Ceilings	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established
Zinc oxide (1314-13-2)	TWAs	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)	2 mg/m3 TWA (dust and fume, respirable fraction)	5 mg/m3 TWA (fume); 30 mppcf TWA (dust); 10 mg/m3 TWA (dust)	5 mg/m3 TWA dust and fume)	5 mg/m TWA (fume); 15 mg/m TWA total dust); 5 mg/m TWA (respirable fraction)
	STELs	10 mg/m3 STEV (fume)	Not established	10 mg/m3 STEL (fume); 20 mg/m3 STEL (dust)	10 mg/m3 STEL (fume)	Not established
	Ceilings	Not established	Not established	Not established	15 mg/m Ceiling dust)	Not established

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Zinc oxide (1314-13-2)	MAKs	Not established	Not established	Not established	Not established	1 mg/m3 TWA MAK (fume, respirable fraction)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWAEV	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)	3.5 mg/m3 TWA
		Not established	Not established	7 mg/m3 STEL		

### Exposure controls

- **Engineering Measures/Controls** Under normal conditions of use, special ventilation is not required.
- **Personal Protective Equipment**
- **Respiratory** No respiratory protection is required under normal conditions of use.
- **Eye/Face** Under normal conditions of use, eye protection is not required. Wear
- **Skin/Body** appropriate gloves.

Follow best practice for site cleanup and disposal of waste.

### Environmental Exposure Controls

**Key to abbreviations**

ACGIH = American Conference of Governmental Industrial Hygiene  
 NIOSH = National Institute of Occupational Safety and Health OSHA = Occupational Safety and Health Administration  
 STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value  
 TWAEV = Time-Weighted Average Exposure Value  
 Time-Weighted Averages are based on 8h/day, 40h/week TWA exposures

## \* Section 9. Physical and Chemical Properties

### • Information on Physical and Chemical Properties

<b>Material Description</b>			
<b>Physical Form</b>	Solid	<b>Appearance/Description</b>	Black solid (EPDM) laminated to tape. No odor.
<b>Color</b>	Black	<b>Odor</b>	None
<b>Odor Threshold</b>	None		
<b>General Properties</b>			
<b>Boiling Point</b>	Not relevant	<b>Melting Point</b>	Data lacking
<b>Decomposition Temperature</b>	Data lacking	<b>pH</b>	Not relevant
<b>Specific Gravity/Relative Density</b>	0.97 Water=1	<b>Water Solubility</b>	Negligible < 0.1 %
<b>Viscosity</b>	Not relevant	<b>Explosive Properties</b>	Not relevant.
<b>Oxidizing Properties</b>	Not relevant.		
<b>Volatility</b>			
<b>Vapor Pressure</b>	Not relevant	<b>Vapor Density</b>	Not relevant
<b>Evaporation Rate</b>	Not relevant	<b>Volatiles (Vol.)</b>	0.7 %
<b>Flammability</b>			
<b>Flash Point</b>	> 200 C(> 392 F)	<b>UEL</b>	Not relevant
<b>LEL</b>	Not relevant	<b>Autoignition</b>	Not relevant
<b>Flammability (solid, gas)</b>	Not flammable.		
<b>Environmental</b>			

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## General Properties

<b>Boiling Point</b>	Not relevant	<b>Melting Point</b>	Data lacking
<b>Decomposition Temperature</b>	Data lacking	<b>pH</b>	Not relevant
<b>Specific Gravity/Relative Density</b>	0.97 Water=1	<b>Water Solubility</b>	Negligible < 0.1 %
<b>Viscosity</b>	Not relevant	<b>Explosive Properties</b>	Not relevant.
<b>Oxidizing Properties</b>	Not relevant.		

## Volatility

<b>Vapor Pressure</b>	Not relevant	<b>Vapor Density</b>	Not relevant
<b>Evaporation Rate</b>	Not relevant	<b>Volatiles (Vol.)</b>	0.7 %

## Flammability

<b>Flash Point</b>	> 200 C(> 392 F)	<b>UEL</b>	Not relevant
<b>LEL</b>	Not relevant	<b>Autoignition</b>	Not relevant
<b>Flammability (solid, gas)</b>	Not flammable.		

## Environmental

<b>Octanol/Water Partition coefficient</b>	Data lacking
--	--------------

### • Other Information

No additional physical and chemical parameters noted.

## \* Section 10. Stability and Reactivity

### Reactivity

- **Chemical stability**  
No dangerous reaction known under conditions of normal use.
- **Possibility of hazardous reactions**  
Stable under normal temperatures and pressures. Hazardous polymerization will not occur.
- **Conditions to avoid**  
Temperatures in excess of 130° F.
- **Incompatible materials**  
No data available.
- **Hazardous decomposition products**  
Thermal decomposition could produce CO, CO<sub>2</sub>, and Oxides of Nitrogen.

## \* Section 11. Toxicological Information

Component Name	CAS	Data
Phenol, p-(1,1,3,3-tetramethylbutyl)- (2% TO 4%)	140-66-9	<b>Acute Toxicity:</b> orl-rat LD50:4600 mg/kg; skn-rbt LD50:1880 mg/kg; <b>Irritation:</b> eye-rbt 50 ug/24H SEV; skn-rbt 20 mg/24H MOD; <b>Reproductive:</b> orl-mus TDLo:2.4 mg/kg (10-21D preg/12D post); orl-mus TDLo:14000 ng/kg (11-17D preg); orl-rat TDLo:250.4 mg/kg (0-8D preg)
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic (0% TO 4%)	64742-52-5	<b>Irritation:</b> skn-rbt 500 mg SEV
Carbon Black (1% TO 4%)	1333-86-4	<b>Acute Toxicity:</b> orl-rat LD50:>15400 mg/kg; skn-rbt LD50:>3 gm/kg; <b>Tumorigen/Carcinogen:</b> ihl-rat TCLo:11600 ug/m3/18H/2Y-1

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Component Name	CAS	Data
Talc (0% TO 6%)	14807-96-6	<b>Irritation:</b> skn-hmn 300 ug/3D-I MLD; <b>Tumorigen/Carcinogen:</b> ihl-rat TC :11 mg/m3/1Y-1
Zinc oxide (0.5% TO 2.5%)	1314-13-2	<b>Irritation:</b> eye-rbt 500 mg/24H MLD; skn-rbt 500 mg/24H MLD; <b>Reproductive:</b> orl-rat TDLo:6846 mg/kg (1-22D preg)
MBTS (0% TO 1%)	120-78-5	<b>Acute Toxicity:</b> orl-rat LD50:>12 gm/kg; skn-rbt LD50:>7940 mg/kg
p-Benzoquinone, 2,3,5,6-tetrachloro- (0% TO 1.5%)	118-75-2	<b>Acute Toxicity:</b> orl-rat LD50:4 gm/kg; ihl-rat LC50:2485 mg/m3/4H
TMDS (0% TO 1%)	137-26-8	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 560 mg/kg; ihl-rat LC50:500 mg/m3/4H; <b>Irritation:</b> eye-rbt 100 mg/24H MOD; <b>Reproductive:</b> orl-rat TDLo:300 mg/kg (15D preg); <b>Tumorigen/Carcinogen:</b> orl-rat TDLo:108 mg/kg/1Y-C

GHS Properties	Classification
<b>Acute toxicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Aspiration Hazard</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Carcinogenicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Germ Cell Mutagenicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Skin corrosion/Irritation</b>	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
<b>Skin sensitization</b>	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1A
<b>STOT-RE</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>STOT-SE</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Toxicity for Reproduction</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Respiratory sensitization</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Serious eye damage/Irritation</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

• **Potential Health Effects Inhalation**

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

• **Skin**

- **Acute (Immediate)** Causes skin irritation. May cause an allergic skin reaction. Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**

• **Eye**

- **Acute (Immediate)** Direct contact with tape may cause mechanical irritation.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

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## • Ingestion

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.
- **Carcinogenic Effects**

Although this material does contain several components that are either carcinogens or potential carcinogens the material as a whole is not classified as a carcinogen according to regulatory guidelines. The carbon black is encapsulated within the matrix of this material and no exposure is expected. The isoprene and formaldehyde components are both in this material at low enough concentrations that this material is not classified as a carcinogen per agency guidelines.

### Carcinogenic Effects

	CAS	OSHA	IARC	NTP
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Isoprene	78-79-5	Not Listed	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen
Carbon Black	1333-86-4	Not Listed	Group 2B-Possible Carcinogen	Not Listed

#### Key to abbreviations

LC = Lethal Concentration  
LD = Lethal Dose  
MLD = Mild  
MOD = Moderate  
SEV = Severe  
TC = Toxic Concentration  
TD = Toxic Dose

## \* Section 12. Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Ecotoxicological effects**
- **Remark:** No further relevant information available.
- **Additional ecological information**
- **General notes:** At present there are no ecotoxicological assessments.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

## \* Section 13. Disposal Considerations

- **Waste treatment methods**
- **Product waste handling**
- **Recommendation:** Dispose of waste product and/or container according to local, regional, state, and national/international regulations.
- **Packaging waste handling**
- **Recommendation:** Dispose of packaging or container according to local, regional, state, and national/international regulations.

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## \* Section 14. Transport Information

	<i>UN number</i>	<i>UN proper shipping name</i>	<i>Transport hazard class(es)</i>	<i>Packing group</i>	<i>Environmental hazards</i>
<i>DOT</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>TDG</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>IMO/IMDG</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>ADN</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>ADR/RID</i>	NDA	Not Regulated	NDA	NDA	NDA
<i>IATA/ICAO</i>	NDA	Not Regulated	NDA	NDA	NDA

- **Special precautions for user**

None known.

- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not Relevant.

## \* Section 15. Regulatory Information

*Safety, health and environmental regulations/legislation specific for the substance or mixture*

**SARA Hazard Classifications**      *Acute*

### State Right To Know

<i>Component</i>	<i>CAS</i>	<i>MA</i>	<i>NJ</i>	<i>PA</i>
<i>1-Propene, 2-methyl-</i>	115-11-7	Yes	Yes	Yes
<i>ENB</i>	16219-75-3	Yes	Yes	Yes
<i>MBTS</i>	120-78-5	No	No	No
<i>Calcium oxide</i>	1305-78-8	Yes	Yes	Yes
<i>Carbon Black</i>	1333-86-4	Yes	Yes	Yes
<i>TMDS</i>	137-26-8	Yes	Yes	Yes
<i>Ethylene propylene diene rubber</i>	25038-36-2	No	No	No
<i>Formaldehyde</i>	50-00-0	Yes	Yes	Yes
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	64742-52-5	No	No	No
<i>Isobutylene-Isoprene polymer</i>	9010-85-9	No	No	No
<i>Isoprene</i>	78-79-5	Yes	Yes	Yes
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	118-75-2	No	No	No
<i>Phenol, 4-methyl</i>	68610-51-5	No	No	No
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	140-66-9	No	No	No
<i>Polybutene</i>	9003-29-6	No	No	No
<i>Sulfur</i>	7704-34-9	Yes	Yes	Yes
<i>Talc</i>	14807-96-6	Yes	Yes	Yes
<i>Zinc oxide</i>	1314-13-2	Yes	Yes	Yes

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<b>Inventory</b>				
<b>Component</b>	<b>CAS</b>	<b>Canada DSL</b>	<b>Canada NDSL</b>	
<i>1-Propene, 2-methyl-</i>	115-11-7	Yes	No	
<i>ENB</i>	16219-75-3	No	Yes	
<i>MBTS</i>	120-78-5	Yes	No	
<i>Calcium oxide</i>	1305-78-8	Yes	No	
<i>Carbon Black</i>	1333-86-4	Yes	No	
<i>TMDS</i>	137-26-8	Yes	No	
<i>Ethylene propylene diene rubber</i>	25038-36-2	Yes	No	
<i>Formaldehyde</i>	50-00-0	Yes	No	
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	64742-52-5	Yes	No	
<i>Isobutylene-Isoprene polymer</i>	9010-85-9	Yes	No	
<i>Isoprene</i>	78-79-5	Yes	No	
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	118-75-2	Yes	No	
<i>Phenol, 4-methyl</i>	68610-51-5	Yes	No	
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	140-66-9	Yes	No	
<i>Polybutene</i>	9003-29-6	Yes	No	
<i>Sulfur</i>	7704-34-9	Yes	No	
<i>Talc</i>	14807-96-6	Yes	No	
<i>Zinc oxide</i>	1314-13-2	Yes	No	

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

• <i>Phenol, 4-methyl</i>	68610-51-5	Not Listed
• <i>Isobutylene-Isoprene polymer</i>	9010-85-9	Not Listed
• <i>Isoprene</i>	78-79-5	Not Listed
• <i>1-Propene, 2-methyl-</i>	115-11-7	Not Listed
• <i>MBTS</i>	120-78-5	Not Listed
• <i>Ethylene propylene diene rubber</i>	25038-36-2	Not Listed
• <i>TMDS</i>	137-26-8	Not Listed
• <i>Formaldehyde</i>	50-00-0	Not Listed
• <i>Calcium oxide</i>	1305-78-8	A, B1, D1A, D2A, D2B; B3, 1A, D2A, D2B, E (regulated under Formol)
• <i>Carbon Black</i>	1333-86-4	E  D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Carbon Black, non-respirable on Health Canada's WHMIS Division website.) D2A Uncontrolled product according to WHMIS classification criteria

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<i>Talc</i>	14807-96-6	<i>D2A</i>
<i>Zinc oxide</i>	1314-13-2	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Zinc oxide as Zinc compounds</i>		<i>Not Listed</i>
<i>Polybutene</i>	9003-29-6	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Sulfur</i>	7704-34-9	<i>B4</i>
<i>ENB</i>	16219-75-3	<i>B2, D1A, D2B</i>
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	118-75-2	<i>Not Listed</i>
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	140-66-9	<i>Uncontrolled product according to WHMIS classification criteria</i>
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	64742-52-5	<i>Not Listed</i>

## **Canada**

### **WHMIS - Ingredient Disclosure List**

<i>Phenol, 4-methyl</i>	68610-51-5	<i>Not Listed</i>
<i>Isobutylene-Isoprene polymer</i>	9010-85-9	<i>Not Listed</i>
<i>Isoprene</i>	78-79-5	<i>1 %</i>
<i>1-Propene, 2-methyl-</i>	115-11-7	<i>Not Listed</i>
<i>MBTS</i>	120-78-5	<i>1 %</i>
<i>Ethylene propylene diene rubber</i>	25038-36-2	<i>Not Listed</i>
<i>TMDS</i>	137-26-8	<i>1 %</i>
<i>Formaldehyde</i>	50-00-0	<i>0.1 %</i>
<i>Calcium oxide</i>	1305-78-8	<i>1 %</i>
<i>Carbon Black</i>	1333-86-4	<i>1 %</i>
<i>Talc</i>	14807-96-6	<i>Not Listed</i>
<i>Zinc oxide</i>	1314-13-2	<i>1 %</i>
<i>Zinc oxide as Zinc compounds</i>		<i>Not Listed</i>
<i>Polybutene</i>	9003-29-6	<i>Not Listed</i>
<i>Sulfur</i>	7704-34-9	<i>Not Listed</i>
<i>ENB</i>	16219-75-3	<i>1 %</i>
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	118-75-2	<i>Not Listed</i>
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	140-66-9	<i>Not Listed</i>
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	64742-52-5	<i>Not Listed</i>

## **Environment**

### **Canada - CEPA - Priority Substances List**

<i>Phenol, 4-methyl</i>	68610-51-5	<i>Not Listed</i>
<i>Isobutylene-Isoprene polymer</i>	9010-85-9	<i>Not Listed</i>
<i>Isoprene</i>	78-79-5	<i>Not Listed</i>
<i>1-Propene, 2-methyl-</i>	115-11-7	<i>Not Listed</i>
<i>MBTS</i>	120-78-5	<i>Not Listed</i>
<i>Ethylene propylene diene rubber</i>	25038-36-2	<i>Not Listed</i>
<i>TMDS</i>	137-26-8	<i>Not Listed</i>
<i>Formaldehyde</i>	50-00-0	<b>Priority Substance List 2 (substance considered toxic)</b>

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Calcium oxide	1305-78-8	Not Listed
Carbon Black	1333-86-4	Not Listed
Talc	14807-96-6	Not Listed
Zinc oxide	1314-13-2	Not Listed
Zinc oxide as Zinc compounds		Not Listed
Polybutene	9003-29-6	Not Listed
Sulfur	7704-34-9	Not Listed
ENB	16219-75-3	Not Listed
p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

## United States

### Labor

#### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	1000 lb TQ
• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

#### U.S. - OSHA - Specifically Regulated Chemicals

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed

• Formaldehyde	50-00-0	2 ppm STEL (Irritant and potential cancer hazard, See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level ; 0.75 ppm TWA
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• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

**Environment**

**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed

**U.S. - California - Proposition 65 - Carcinogens List:** Not Listed

**U.S. - California - Proposition 65 - Developmental Toxicity:** Not Listed

**U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MAD):** Not Listed

**U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL):** Not Listed

**U.S. - California - Proposition 65 - Reproductive Toxicity - Female:** Not Listed

**U.S. - California - Proposition 65 - Reproductive Toxicity - Male:** Not Listed

**United States - Pennsylvania**

**Labor**

**U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List:** Not Listed

**U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances:** Not Listed

**Chemical Safety Assessment:** Chemical Safety Assessment is not required.

**\* Section 16. Other Information**

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation/ last revision** 03/21/2007

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- **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

End of SDS

**\* Section 1. Identification**

**Product identifier:** Reinforced Perimeter Strip with Tape

- **Tradename:** Royal Edge Reinforced Perimeter Strip with Tape
- **Relevant identified uses of the substance or mixture:** Construction

**Details of the supplier of the safety data sheet Manufacturer/Supplier**

Roofing Products International, Inc.

57460 Dewitt St.

Elkhart, IN 46517-1078

Telephone: 1-574-293-9096

Information Department: Technical Services Department

**Emergency telephone number**

Chemtrec United States 1(800) 424-9300 International 703-527-3887

**\* Section 2. Hazard(s) Identification****EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

**Classification of the substance or mixture**

- **CLP** Skin Irritation 2 - H315 Skin Sensitization 1 - H317
- **DSD/DPD** Irritant (Xi) Sensitizer R38, R43

**Label Elements**

- **CLP**

**WARNING****Hazard statements**

H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction

**Precautionary statements**

- **Prevention**

P261 - Avoid breathing dust/fume.  
P264 - Wash thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- **Response**

P302+ P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333+ P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P321 - Specific treatment, see supplemental first aid information.  
P362 - Take off contaminated clothing and wash before reuse.
- **Storage/Disposal**

P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

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- **DSD/DPD**



- **Risk phrases**

R38 - Irritating to skin.  
R43 - May cause sensitisation by skin contact.

- **Safety phrases**

S24 - Avoid contact with skin.  
S37 - Wear suitable gloves.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### Other Hazards

- **CLP** According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- **DSD/DPD** According to European Directive 1999/45/EC this preparation is considered dangerous.

### United States (US)

- According to OSHA 29 CFR 1910.1200 HCS

### Classification of the substance or mixture

- **OSHA HCS 2012** Skin Irritation 2 - H315  
Skin Sensitization 1A - H317

### Label elements

- **OSHA HCS 2012**

## WARNING



### Hazard statements

Causes skin irritation - H315  
May cause an allergic skin reaction - H317

### Precautionary statements

- **Prevention** Avoid breathing dust/fume. - P261  
Wash thoroughly after handling. - P264  
Contaminated work clothing should not be allowed out of the workplace.- P272  
Wear protective gloves/protective clothing/eye protection/face protection.- P280
- **Response** If skin irritation occurs: Get medical advice/attention. - P332+P313  
IF ON SKIN: Wash with plenty of soap and water. - P302+P352  
Specific treatment, see supplemental first aid information. - P321  
If skin irritation or rash occurs: Get medical advice/attention. - P333+P313  
Take off contaminated clothing and wash before reuse. - P362
- **Storage/Disposal** Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

### Other hazards

- **OSHA HCS 2012** Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

### Canada

- According to WHMIS

### Classification of the substance or mixture

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• **WHMIS** Other Toxic Effects - D2B  
**Label elements**

• **WHMIS** Other Toxic Effects - D2B



**Other hazards**

• **WHMIS** In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

See Section 12 for Ecological Information.

\* **Section 3. Composition/Information on Ingredients**

• **Substances** Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

<b>Mixtures</b>		<b>Composition</b>			
<b>Chemical Name</b>	<b>Identifiers</b>	<b>%</b>	<b>LD50/LC50</b>	<b>Classifications According to Regulation/Directive</b>	<b>Comments</b>
Resin	NDA	4% TO 13%	NDA	<b>EU DSD/DPD:</b> Self Classified: Xi R36/37/38 <b>EU CLP:</b> Self Classified: Eye Irrit. 2A, H319; Skin Irrit. 2, H315; STOT SE 3 - Resp., H335 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; STOT SE 3 - Resp.	NDA
Talc	CAS:14807-96-6 EC Number:238-877-9	0% TO 6%	NDA	<b>EU DSD/DPD:</b> Self Classified: Xn R48/20 <b>EU CLP:</b> Self Classified: STOT RE 1, H372 <b>OSHA HCS 2012:</b> STOT RE 1 (Lungs)	NDA
Calcium oxide	CAS:1305-78-8 EC Number:215-138-9	1% TO 5%	NDA	<b>EU DSD/DPD:</b> Self Classified: C R34 <b>EU CLP:</b> Self Classified: Skin Corr. 1C, H314; Eye Dam. 1, H318 <b>OSHA HCS 2012:</b> Skin Corr. 1C; Eye Dam. 1	NDA
Phenol, p-(1,1,3,3-tetramethylbutyl)-	CAS:140-66-9 EINECS:205-426-2	2% TO 4%	Skin-Rabbit LD50 1880 mg/kg Ingestion/Oral Rat LD50 > 2000 mg/kg	<b>EU DSD/DPD:</b> Annex I: Xi R38-41; N R50-53 <b>EU CLP:</b> Annex VI: Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; Repr. 2	NDA
Mineral oil, petroleum distillates, hydro-treated (mild) heavy naphthenic	CAS:64742-52-5 EC Number:265-155-0	0% To 4%	NDA	<b>EU DSD/DPD:</b> Annex I: Carc. 2; R45 <b>EU CLP:</b> Annex VI: Carc. 1B, H350 <b>OSHA HCS 2012:</b> Skin Irrit. 2	NDA
Carbon Black	CAS:1333-86-4 ECNumber:215-609-9	1% To 4%	Skin-Rabbit LD50 >3 g/kg Ingestion/Oral-Rat LD50 >15400 mg/kg	<b>EU DSD/DPD:</b> None <b>EU CLP:</b> None <b>OSHA HCS 2012:</b> Carc. 2	NDA

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Mineral oil, petroleum distillates, hydro-treated (mild) heavy naphthenic	CAS:64742-52-5 EC Number:265-155-0	0% To 4%	NDA	EU DSD/DPD: Annex I: Carc. 2; R45 EU CLP: Annex VI: Carc. 1B, H350 OSHA HCS 2012: Skin Irrit. 2	NDA
Carbon Black	CAS:1333-86-4 EC Number:215-609-9	1% To 4%	Skin-Rabbit LD50 >3 g/kg Ingestion/Oral-Rat LD50 >15400 mg/kg	EU DSD/DPD: None EU CLP: None OSHA HCS 2012: Carc. 2	NDA
Zinc oxide	CAS:1314-13-2 EC Number:215-222-5	0.5% To 2.5%	NDA	EU DSD/DPD: Annex I: N; R50-53 EU CLP: Annex VI: Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Eye Irrit. 2B	NDA
p-Benzoquinone, 2,3,5,6-tetrachloro-	CAS:118-75-2 EC Number:204-274-4	0% To 1.5%	Ingestion/Oral-Rat LD50 • 4 g/kg	EU DSD/DPD: Annex I: Xi R36/38 N R50-53 EU CLP: Annex VI: Eye Irrit. 2, H319; Skin Irrit. 2, H315; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Eye Irrit. 2A; Skin Irrit. 2; STOT RE 3: Resp. Irrit. & Narc.; Acute Tox. 4 (Inhl)	NDA
TMDS	CAS:137-26-8 EC Number:205-286-2	0% To 1%	Ingestion/Oral-Rat LD50 • 560 mg/kg Inhalation-Rat LC50 500 mg/m <sup>3</sup> 4 Hour(s)	EU DSD/DPD: Annex I: Xn R20/22 - 48/22 Xi R36/38; R43 N R50-53 EU CLP: Annex VI: Acute Tox. 4, H332; Acute Tox. 4, H302; STOT RE 2, H373; Eye Irrit. 2, H319; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1A; Acute Tox. 4 (Oral); Acute Tox. 2 (Inhl)	NDA
MBTS	CAS:120-78-5 EC Number:204-424-9	0% To 1%	Ingestion/Oral-Rat LD50 >12 g/kg Skin-Rabbit LD50 >7940 mg/kg	EU DSD/DPD: Annex I: R31 R43 N; R50-53 EU CLP: Annex VI: Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Skin Sens. 1A	NDA

Refer to Section 11 for Toxicological Information.

## \* Section 4. First-Aid Measures

- **Inhalation** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- **Skin** Remove material from skin with waterless hand cleaners followed by washing with soap and water. If signs/symptoms develop, get medical attention.
- **Eye** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- **Ingestion** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

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## **Most important symptoms and effects, both acute and delayed**

Refer to Section 11 - Toxicological Information.

## **Indication of any immediate medical attention and special treatment needed**

### • **Note to physician**

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## \* **Section 5. Fire-Fighting Measures**

### **Extinguishing media**

- **Suitable Extinguishing Media:** Water, foam, dry chemical, carbon dioxide (CO<sub>2</sub>).
- **Unsuitable Extinguishing Media:** None known.

### **Special hazards arising from the substance or mixture**

- **Unusual Fire and Explosion Hazards:** Material releases toxic and corrosive gases/vapors when burned.
- **Hazardous Combustion Products:** Nitrous oxides, sulfur oxides, carbon oxides.

### **Advice for firefighters**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

## \* **Section 6. Accidental Release Measures**

### **Personal precautions, protective equipment and emergency procedures**

- **Personal Precautions** No special precautions expected to be necessary if material is used under ordinary conditions as recommended.
- **Emergency Procedures** No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures.
- **Environmental precautions**  
No special precautions necessary.

### **Methods and material for containment and cleaning up**

- **Containment/Clean-up Measures** Pick up pieces and place in container or bag for disposal.

### **Reference to other sections**

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

## \* **Section 7. Handling and Storage**

### **Precautions for safe handling**

#### • **Handling**

Do not handle at temperatures in excess of 130° F. Avoid prolonged or repeated contact with the skin. Use good safety and industrial hygiene practices. Product readily removed from the skin with waterless hand cleaners followed by washing with soap and water.

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## Conditions for safe storage, including any incompatibilities

- **Storage**  
Store in a cool, dry place. Do not store at temperatures in excess of 130° F.
- **Specific end uses**  
Refer to Section 1.2 - Relevant identified uses.

## \* Section 8. Exposure Controls/Personal Protection

### Exposure Limits/Guidelines

	Result	ACGIH	Belgium	Canada Alberta	Canada British Columbia	Canada Manitoba
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	Not Established	1 ppm Ceiling; 1.3 mg/m <sup>3</sup> Ceiling	1 ppm Ceiling	0.3 ppm Ceiling
	TWAs	Not Established	Not Established	207 rro VY C= 2Q 'o i lo 5 VY C	0.3 ppm TWA	Not established
TMDS *359/48/: +	TWAs	207'o i lo 5 VY C" *pj cxdig'ltcewqp" cpf 'xcrqt +	207'o i lo 5 VY C" *gt quqil'cpf 'xcrqt +" 2027'rro VY C" *gt quqil'cpf 'xcrqt +	3'o i lo 5 VY C	3'o i lo 5 VY C	207'o i lo 5 VY C" *pj cxdig'ltcewqp" cpf 'xcrqt +
Talc *36: 29/; 8/8+	TWAs	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA *gur kt cdig particulate)	2 mg/m <sup>3</sup> TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate)	2 mg/m <sup>3</sup> TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)
3/Rt qrgpg. '4/ methyl- *337/33/9+	TWAs	472'rro VY C' *kngf" wpf gt 'Dwpggu 'cni' kuqo gt u+	472'rro VY C= 7: 5'o i lo 5 VY C	Not Established	Not Established	472'rro VY C *kngf 'wpf gt Dwpggu 'cni kuqo gt u+
ENB (16219-75-3)	Ceilings	5 ppm Ceiling	Not Established	5 ppm Ceiling; 25 mg/m	5 ppm ceiling	5 ppm Ceiling
Sulfur (7704-34-9)	TWAs	Not established	Not established	10 mg/m <sup>3</sup> TWA	Not established	Not established
Zinc oxide (1314-13-2)	STELs	10 mg/m <sup>3</sup> STEL (respirable fraction)	10 mg/m <sup>3</sup> STEL (fume)	10 mg/m <sup>3</sup> STEL (respirable)	10 mg/m <sup>3</sup> STEL (respirable)	10 mg/m <sup>3</sup> STEL (respirable fraction)
	TWAs	2 mg/m <sup>3</sup> TWA (respirable fraction)	0 mg/m <sup>3</sup> TWA (dust); 5 mg/m <sup>3</sup> TWA (fume)	2 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable fraction)
Carbon Black (1333-86-4)	TWAs	3 mg/m <sup>3</sup> TWA (inhalable fraction)	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA	3 mg/m <sup>3</sup> TWA (inhalable)	3 mg/m <sup>3</sup> TWA (inhalable fraction)

### Exposure Limits/Guidelines Continued

	Result	Canada New Brunswick	Canada Nunavut	Canada Nova Scotia	Canada Northwest Territories	Canada Ontario
Formaldehyde (50-00-0)	STELs	1.5 ppm STEL	Not established	Not established	Not established	1.0 ppm STEL
	TWAs	0.5 ppm TWA	Not established	Not established	Not established	Not established
	Ceilings	Not established	2 ppm Ceiling; 2.4 mg/m <sup>3</sup> Ceiling	0.3 ppm Ceiling	2 ppm Ceiling; 2.4 mg/m <sup>3</sup> Ceiling	1.5 ppm Ceiling

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TMDS (137-26-8)	TWAs	1 mg/m3 TWA	5 mg/m3 TWA	0.05 mg/m3 TWA (inhalable fraction and vapor)	5 mg/m3 TWA	0.05 mg/m3 TWA (inhalable fraction and vapor, listed under Thiram)
	STELs	Not established	10 mg/m3 STEL	Not established	10 mg/m3 STEL	Not established
Talc (14807-96-6)	TWAs	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (containing no Asbestos and <1% Crystalline silica, respirable)
1-Propene, 2- methyl- (115-11-7)	TWAs	Not established	Not established	250 ppm TWA (listed under Butenes, all isomers)	Not established	250 ppm TWA (listed under Butenes, all isomers)
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (fume)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)
	TWAs	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, dust); 5 mg/ m3 TWA (fume)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, res- pirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable fraction)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3 mg/m3 TWA (inhalable fraction)	3.5 mg/m3 TWA	3.5 mg/m3 TWA
	STELs	Not established	7 mg/m3 STEL	Not established	7 mg/m3 STEL	Not established

### Exposure Limits/Guidelines Continued

	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	NIOSH	OSHA
Formaldehyde (50-00-0)	STELs	Not established	Not established	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	Ceilings	2 ppm Ceiling; 3 mg/m3 Ceiling	Not established	2 ppm Ceiling; 3 mg/m3 Ceiling	0.1 ppm Ceiling (15 min)	Not established
	TWAs	Not established	Not established	Not established	0.016 ppm TWA	0.75 ppm TWA
TMDS (137-26-8)	TWAs	5 mg/m3 TWAEV	1 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA
	STELs	Not established	Not established	10 mg/m3 STEL	Not established	Not established
	Ceiling	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
Talc (14807-96-6)	TWAs	3 mg/m3 TWAEV (respirable dust)	2 mg/m3 TWA (respirable fraction)	20 mppcf TWA	2 mg/m3 TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established
Isoprene (78-79-5)	Ceilings	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established

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Zinc oxide (1314-13-2)	TWAs	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)	2 mg/m3 TWA (dust and fume, respirable fraction)	5 mg/m3 TWA (fume); 30 mppcf TWA (dust); 10 mg/m3 TWA (dust)	5 mg/m3 TWA dust and fume)	5 mg/m TWA (fume); 15 mg/m TWA total dust) 5 mg/m TWA (respirable fraction)
	STELs	10 mg/m3 STEV (fume)	Not established	10 mg/m3 STEL (fume); 20 mg/m3 STEL (dust)	10 mg/m3 STEL (fume)	Not established
	Ceilings	Not established	Not established	Not established	15 mg/m Ceiling dust)	Not established
	MAKs	Not established	Not established	Not established	Not established	1 mg/m3 TWA MAK (fume, respirable fraction)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWAEV	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)	3.5 mg/m3 TWA
		Not established	Not established	7 mg/m3 STEL		

## Exposure controls

### Engineering Measures/Controls Personal Protective Equipment

Under normal conditions of use, special ventilation is not required.

- **Respiratory**
- **Eye/Face**
- **Skin/Body**

No respiratory protection is required under normal conditions of use.

Under normal conditions of use, eye protection is not required.

Wear appropriate gloves.

Follow best practice for site cleanup and disposal of waste.

### Environmental Exposure Controls

#### Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

Time-Weighted Averages are based on 8h/day, 40h/week TWA exposures

## \* Section 9. Physical and Chemical Properties

### Information on Physical and Chemical Properties

Material Description	
Physical Form	Solid
Appearance/Description	Black solid (EPDM) laminated to tape. No odor.
Color	Black
Odor	None
Odor Threshold	None

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## General Properties

<b>Boiling Point</b>	Not relevant	<b>Melting Point</b>	Data lacking
<b>Decomposition Temperature</b>	Data lacking	<b>pH</b>	Not relevant
<b>Specific Gravity/Relative Density</b>	0.97 Water=1	<b>Water Solubility</b>	Negligible < 0.1 %
<b>Viscosity</b>	Not relevant	<b>Explosive Properties</b>	Not relevant.
<b>Oxidizing Properties</b>	Not relevant.		

## Volatility

<b>Vapor Pressure</b>	Not relevant	<b>Vapor Density</b>	Not relevant
<b>Evaporation Rate</b>	Not relevant	<b>Volatiles (Vol.)</b>	0.7 %

## Flammability

<b>Flash Point</b>	> 200 C(> 392 F)	<b>UEL</b>	Not relevant
<b>LEL</b>	Not relevant	<b>Autoignition</b>	Not relevant
<b>Flammability (solid, gas)</b>	Not flammable.		

## Environmental

<b>Octanol/Water Partition coefficient</b>	Data lacking
--	--------------

### • Other Information

No additional physical and chemical parameters noted.

## \* Section 10. Stability and Reactivity

### Reactivity

- **Chemical stability**  
No dangerous reaction known under conditions of normal use.
- **Possibility of hazardous reactions**  
Stable under normal temperatures and pressures. Hazardous polymerization will not occur.
- **Conditions to avoid**  
Temperatures in excess of 130° F.
- **Incompatible materials**  
No data available.
- **Hazardous decomposition products**  
Thermal decomposition could produce CO, CO<sub>2</sub>, and Oxides of Nitrogen.

## \* Section 11. Toxicological Information

Component Name	CAS	Data
Phenol, p-(1,1,3,3-tetramethylbutyl)- (2% TO 4%)	140-66-9	<b>Acute Toxicity:</b> orl-rat LD50:4600 mg/kg; skn-rbt LD50:1880 mg/kg; <b>Irritation:</b> eye-rbt 50 ug/24H SEV; skn-rbt 20 mg/24H MOD; <b>Reproductive:</b> orl-mus TDLo:2.4 mg/kg (10-21D preg/12D post); orl-mus TDLo:14000 ng/kg (11-17D preg); orl-rat TDLo:250.4 mg/kg (0-8D preg)
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic (0% TO 4%)	64742-52-5	<b>Irritation:</b> skn-rbt 500 mg SEV
Carbon Black (1% TO 4%)	1333-86-4	<b>Acute Toxicity:</b> orl-rat LD50:>15400 mg/kg; skn-rbt LD50:>3 gm/kg; <b>Tumorigen/Carcinogen:</b> ihl-rat TCLo:11600 ug/m3/18H/2Y-1

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Component Name	CAS	Data
Talc (0% TO 6%)	14807-96-6	<b>Irritation:</b> skn-hmn 300 ug/3D-I MLD; <b>Tumorigen/ Carcinogen:</b> ihl-rat TC :11 mg/m3/1Y-1
Zinc oxide (0.5% TO 2.5%)	1314-13-2	<b>Irritation:</b> eye-rbt 500 mg/24H MLD; skn-rbt 500 mg/24H MLD; <b>Reproductive:</b> orl-rat TDLo:6846 mg/kg (1-22D preg)
MBTS (0% TO 1%)	120-78-5	<b>Acute Toxicity:</b> orl-rat LD50:>12 gm/kg; skn-rbt LD50:>7940 mg/kg
p-Benzoquinone, 2,3,5,6-tetrachloro- (0% TO 1.5%)	118-75-2	<b>Acute Toxicity:</b> orl-rat LD50:4 gm/kg; ihl-rat LC50:2485 mg/m3/4H
TMDS (0% TO 1%)	137-26-8	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 560 mg/kg; ihl-rat LC50:500 mg/m3/4H; <b>Irritation:</b> eye-rbt 100 mg/24H MOD; <b>Reproductive:</b> orl-rat TDLo:300 mg/kg (15D preg); <b>Tumorigen/Carcinogen:</b> orl-rat TDLo:108 mg/kg/1Y-C

GHS Properties	Classification
<b>Acute toxicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Aspiration Hazard</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Carcinogenicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Germ Cell Mutagenicity</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Skin corrosion/Irritation</b>	EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
<b>Skin sensitization</b>	EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1A
<b>STOT-RE</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>STOT-SE</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Toxicity for Reproduction</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Respiratory sensitization</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Serious eye damage/Irritation</b>	EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

## Potential Health Effects

### Inhalation

- **Acute (Immediate)**
- **Chronic (Delayed)**

Under normal conditions of use, no health effects are expected.

Under normal conditions of use, no health effects are expected.

### Skin

- **Acute (Immediate)**
- **Chronic (Delayed)**

Causes skin irritation. May cause an allergic skin reaction. Under normal conditions of use, no health effects are expected.

### Eye

- **Acute (Immediate)**
- **Chronic (Delayed)**

Direct contact with tape may cause mechanical irritation.

Under normal conditions of use, no health effects are expected.

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## Ingestion

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.
- **Carcinogenic Effects**

Although this material does contain several components that are either carcinogens or potential carcinogens the material as a whole is not classified as a carcinogen according to regulatory guidelines. The carbon black is encapsulated within the matrix of this material and no exposure is expected. The isoprene and formaldehyde components are both in this material at low enough concentrations that this material is not classified as a carcinogen per agency guidelines.

## Carcinogenic Effects

	CAS	OSHA	IARC	NTP
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Isoprene	78-79-5	Not Listed	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen
Carbon Black	1333-86-4	Not Listed	Group 2B-Possible Carcinogen	Not Listed

### Key to abbreviations

LC = Lethal Concentration  
LD = Lethal Dose  
MLD = Mild  
MOD = Moderate  
SEV = Severe  
TC = Toxic Concentration  
TD = Toxic Dose

## \* Section 12. Ecological Information

### Toxicity

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

### Behavior in environmental systems

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

### Ecotoxicological effects

- **Remark:** No further relevant information available.

### Additional ecological information

- **General notes:** At present there are no ecotoxicological assessments.

### Results of PBT and vPvB

- **assessment PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

## \* Section 13. Disposal Considerations

### Waste treatment methods

- **Product waste handling**
- **Recommendation:** Dispose of waste product and/or container according to local, regional, state, and national/international regulations.

### Packaging waste handling

- **Recommendation:** Dispose of packaging or container according to local, regional, state, and national/international regulations.

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## \* Section 14. Transport Information

	<i>UN number</i>	<i>UN proper shipping name</i>	<i>Transport hazard class(es)</i>	<i>Packing group</i>	<i>Environmental hazards</i>
<i>DOT</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>TDG</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>IMO/IMDG</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>ADN</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>ADR/RID</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>
<i>IATA/ICAO</i>	<i>NDA</i>	<i>Not Regulated</i>	<i>NDA</i>	<i>NDA</i>	<i>NDA</i>

- **Special precautions for user**

None known.

- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not Relevant.

## \* Section 15. Regulatory Information

*Safety, health and environmental regulations/legislation specific for the substance or mixture*

**SARA Hazard Classifications**      *Acute*

### State Right To Know

<i>Component</i>	<i>CAS</i>	<i>MA</i>	<i>NJ</i>	<i>PA</i>
<i>1-Propene, 2-methyl-</i>	<i>115-11-7</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>ENB</i>	<i>16219-75-3</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>MBTS</i>	<i>120-78-5</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Calcium oxide</i>	<i>1305-78-8</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>TMDS</i>	<i>137-26-8</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Ethylene propylene diene rubber</i>	<i>25038-36-2</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Formaldehyde</i>	<i>50-00-0</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</i>	<i>64742-52-5</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Isobutylene-Isoprene polymer</i>	<i>9010-85-9</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Isoprene</i>	<i>78-79-5</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>p-Benzoquinone, 2,3,5,6-tetrachloro-</i>	<i>118-75-2</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Phenol, 4-methyl</i>	<i>68610-51-5</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Phenol, p-(1,1,3,3-tetramethylbutyl)-</i>	<i>140-66-9</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Polybutene</i>	<i>9003-29-6</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Sulfur</i>	<i>7704-34-9</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Talc</i>	<i>14807-96-6</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>Zinc oxide</i>	<i>1314-13-2</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>

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<b>Inventory</b>				
Component	CAS	Canada DSL	Canada NDSL	
<i>1-Propene, 2-methyl-</i>	115-11-7	Yes	No	
ENB	16219-75-3	No	Yes	
MBTS	120-78-5	Yes	No	
Calcium oxide	1305-78-8	Yes	No	
Carbon Black	1333-86-4	Yes	No	
TMDS	137-26-8	Yes	No	
Ethylene propylene diene rubber	25038-36-2	Yes	No	
Formaldehyde	50-00-0	Yes	No	
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Yes	No	
Isobutylene-Isoprene polymer	9010-85-9	Yes	No	
Isoprene	78-79-5	Yes	No	
<i>p</i> -Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Yes	No	
Phenol, 4-methyl	68610-51-5	Yes	No	
Phenol, <i>p</i> -(1,1,3,3-tetramethylbutyl)-	140-66-9	Yes	No	
Polybutene	9003-29-6	Yes	No	
Sulfur	7704-34-9	Yes	No	
Talc	14807-96-6	Yes	No	
Zinc oxide	1314-13-2	Yes	No	

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	Not Listed
• Calcium oxide	1305-78-8	A, B1, D1A, D2A, D2B; B3, 1A, D2A, D2B, E (regulated under Formol)
• Carbon Black	1333-86-4	E  D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Carbon Black, non-respirable on Health Canada's WHMIS Division website.) D2A Uncontrolled product according to WHMIS classification criteria

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Talc	14807-96-6	D2A
Zinc oxide	1314-13-2	Uncontrolled product according to WHMIS classification criteria
Zinc oxide as Zinc compounds		Not Listed
Polybutene	9003-29-6	Uncontrolled product according to WHMIS classification criteria
Sulfur	7704-34-9	B4
ENB	16219-75-3	B2, D1A, D2B
p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Uncontrolled product according to WHMIS classification criteria
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed
<b>Canada</b>		
<b>WHMIS - Ingredient Disclosure List</b>		
Phenol, 4-methyl	68610-51-5	Not Listed
Isobutylene-Isoprene polymer	9010-85-9	Not Listed
Isoprene	78-79-5	1 %
1-Propene, 2-methyl-	115-11-7	Not Listed
MBTS	120-78-5	1 %
Ethylene propylene diene rubber	25038-36-2	Not Listed
TMDS	137-26-8	1 %
Formaldehyde	50-00-0	0.1 %
Calcium oxide	1305-78-8	1 %
Carbon Black	1333-86-4	1 %
Talc	14807-96-6	Not Listed
Zinc oxide	1314-13-2	1 %
Zinc oxide as Zinc compounds		Not Listed
Polybutene	9003-29-6	Not Listed
Sulfur	7704-34-9	Not Listed
ENB	16219-75-3	1 %
p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed
<b>Environment</b>		
<b>Canada - CEPA - Priority Substances List</b>		
Phenol, 4-methyl	68610-51-5	Not Listed
Isobutylene-Isoprene polymer	9010-85-9	Not Listed
Isoprene	78-79-5	Not Listed
1-Propene, 2-methyl-	115-11-7	Not Listed
MBTS	120-78-5	Not Listed
Ethylene propylene diene rubber	25038-36-2	Not Listed
TMDS	137-26-8	Not Listed
Formaldehyde	50-00-0	Priortiy Substance List 2 (substance considered toxic)

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Calcium oxide	1305-78-8	Not Listed
Carbon Black	1333-86-4	Not Listed
Talc	14807-96-6	Not Listed
Zinc oxide	1314-13-2	Not Listed
Zinc oxide as Zinc compounds		Not Listed
Polybutene	9003-29-6	Not Listed
Sulfur	7704-34-9	Not Listed
ENB	16219-75-3	Not Listed
p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

**United States**

**Labor**

**U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	1000 lb TQ
• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

**U.S. - OSHA - Specifically Regulated Chemicals**

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed

• Formaldehyde	50-00-0	2 ppm STEL (Irritant and potential cancer hazard, See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level ; 0.75 ppm TWA
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• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed
<b>Environment</b>		
<b>U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants</b>		
• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
U.S. - California - Proposition 65 - Carcinogens List: Not Listed		
U.S. - California - Proposition 65 - Developmental Toxicity: Not Listed		
U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MAD): Not Listed		
U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL): Not Listed		
U.S. - California - Proposition 65 - Reproductive Toxicity - Female: Not Listed		
U.S. - California - Proposition 65 - Reproductive Toxicity - Male: Not Listed		
<b>United States - Pennsylvania</b>		
<b>Labor</b>		
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List: Not Listed		
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances: Not Listed		

**Chemical Safety Assessment:** Chemical Safety Assessment is not required.

## \* Section 16. Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation/ last revision** 03/21/2007

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- **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

End of SDS

**\* Section 1. Identification****Product identifier:** Walkway Pad

- **Trade name:** Royal Edge Walkway Pad
- **Relevant identified uses of the substance or mixture:** Construction

**Details of the supplier of the safety data sheet Manufacturer/Supplier**

Roofing Products International, Inc.

57460 Dewitt St.

Elkhart, IN 46517-1078

Telephone: 1-574-293-9096

Information Department: Technical Services Department

**Emergency telephone number**

Chemtrec United States 1(800) 424-9300 International 703-527-3887

**\* Section 2. Hazard(s) Identification****EU/EEC**

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

**Classification of the substance or mixture**

- **CLP** Skin Irritation 2 - H315 Skin  
Sensitization 1 - H317
- **DSD/DPD** Irritant (Xi)  
Sensitizer  
R38, R43

**Label Elements**

- **CLP**

**WARNING**

- **Hazard statements** H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction

**Precautionary statements**

- **Prevention** P261 - Avoid breathing dust/fume.  
P264 - Wash thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- **Response** P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P321 - Specific treatment, see supplemental first aid information.  
P362 - Take off contaminated clothing and wash before reuse.
- **Storage/Disposal** P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.



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- **DSD/DPD**



- **Risk phrases**

R38 - Irritating to skin.  
R43 - May cause sensitisation by skin contact.

- **Safety phrases**

S24 - Avoid contact with skin.  
S37 - Wear suitable gloves.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### Other Hazards

- **CLP**

According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

- **DSD/DPD**

According to European Directive 1999/45/EC this preparation is considered dangerous.

### United States (US)

- According to OSHA 29 CFR 1910.1200 HCS

### Classification of the substance or mixture

- **OSHA HCS 2012** Skin Irritation 2 - H315  
Skin Sensitization 1A - H317

### Label elements

- **OSHA HCS 2012**

## WARNING



- **Hazard statements**

Causes skin irritation - H315  
May cause an allergic skin reaction - H317

### Precautionary statements

- **Prevention**

Avoid breathing dust/fume. - P261  
Wash thoroughly after handling. - P264  
Contaminated work clothing should not be allowed out of the workplace.- P272  
Wear protective gloves/protective clothing/eye protection/face protection.- P280

- **Response**

If skin irritation occurs: Get medical advice/attention. - P332+P313  
IF ON SKIN: Wash with plenty of soap and water. - P302+P352  
Specific treatment, see supplemental first aid information. - P321  
If skin irritation or rash occurs: Get medical advice/attention. - P333+P313  
Take off contaminated clothing and wash before reuse. - P362

- **Storage/Disposal**

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

### Other hazards

- **OSHA HCS 2012**

Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

### Canada

- According to WHMIS

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## Classification of the substance or mixture

- **WHMIS** Other Toxic Effects - D2B

## Label elements

- **WHMIS** Other Toxic Effects - D2B



## Other hazards

- **WHMIS** In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).  
See Section 12 for Ecological Information.

## \* Section 3. Composition/Information on Ingredients

- **Substances** Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

Mixtures	Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Resin	NDA	4% TO 13%	NDA	<i>EU DSD/DPD:</i> Self Classified: Xi R36/37/38 <i>EU CLP:</i> Self Classified: Eye Irrit. 2A, H319; Skin Irrit. 2, H315; STOT SE 3 - Resp., H335 <i>OSHA HCS 2012:</i> Eye Irrit. 2A; Skin Irrit. 2; STOT SE 3 - Resp.	NDA
Talc	CAS:14807-96-6 EC Number:238-877-9	0% TO 6%	NDA	<i>EU DSD/DPD:</i> Self Classified: Xn R48/20 <i>EU CLP:</i> Self Classified: STOT RE 1, H372 <i>OSHA HCS 2012:</i> STOT RE 1 (Lungs)	NDA
Calcium oxide	CAS:1305-78-8 EC Number:215-138-9	1% TO 5%	NDA	<i>EU DSD/DPD:</i> Self Classified: C R34 <i>EU CLP:</i> Self Classified: Skin Corr. 1C, H314; Eye Dam. 1, H318 <i>OSHA HCS 2012:</i> Skin Corr. 1C; Eye Dam. 1	NDA
Phenol, p-(1,1,3,3-tetramethylbutyl)-	CAS:140-66-9 EINECS:205-426-2	2% TO 4%	Skin-Rabbit LD50 1880 mg/kg Ingestion/Oral Rat LD50 > 2000 mg/kg	<i>EU DSD/DPD:</i> Annex I: Xi R38-41; N R50-53 <i>EU CLP:</i> Annex VI: Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <i>OSHA HCS 2012:</i> Eye Irrit. 2A; Skin Irrit. 2; Repr. 2	NDA
Mineral oil, petroleum distillates, hydro-treated (mild) heavy naphthenic	CAS:64742-52-5 EC Number:265-155-0	0% To 4%	NDA	<i>EU DSD/DPD:</i> Annex I: Carc. 2; R45 <i>EU CLP:</i> Annex VI: Carc. 1B, H350 <i>OSHA HCS 2012:</i> Skin Irrit. 2	NDA
Carbon Black	CAS: 1333-86-4 ECNumber: 215- 609-9	1% To 4%	Skin-Rabbit LD50 >3 g/kg Ingestion/Oral-Rat LD50 >15400 mg/kg	<i>EU DSD/DPD:</i> None <i>EU CLP:</i> None <i>OSHA HCS 2012:</i> Carc. 2	NDA

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Zinc oxide	<b>CAS:</b> 1314-13-2 <b>EC Number:</b> 215- 222-5	0.5% To 2.5%	NDA	<b>EU DSD/DPD:</b> Annex I: N; R50-53 <b>EU CLP:</b> Annex VI: Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2B	NDA
p-Benzoquinone, 2,3, 5,6-tetrachloro-	<b>CAS:</b> 118-75-2 <b>EC Number:</b> 204-274-4	0% To 1.5%	Ingestion/Oral-Rat LD50 • 4 g/kg	<b>EU DSD/DPD:</b> Annex I: Xi R36/38 N R50-53 <b>EU CLP:</b> Annex VI: Eye Irrit. 2, H319; Skin Irrit. 2, H315; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2A; Skin Irrit. 2; STOT RE 3: Resp. Irrit. & Narc.; Acute Tox. 4 (Inhl)	NDA
TMDS	<b>CAS:</b> 137-26-8 <b>EC Number:</b> 205-286-2	0% To 1%	Ingestion/Oral-Rat LD50 • 560 mg/kg  Inhalation-Rat LC50 500 mg/m <sup>3</sup> 4 Hour(s)	<b>EU DSD/DPD:</b> Annex I: Xn R20/22 - 48/22 Xi R36/38; R43 N R50-53 <b>EU CLP:</b> Annex VI: Acute Tox. 4, H332; Acute Tox. 4, H302; STOT RE 2, H373; Eye Irrit. 2, H319; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Eye Irrit. 2, Skin Irrit. 2, Skin Sens. 1A; Acute Tox. 4 (Oral); Acute Tox. 2 (Inhl)	NDA
MBTS	<b>CAS:</b> 120-78-5 <b>EC Number:</b> 204-424-9	0% To 1%	Ingestion/Oral-Rat LD50 >12 g/kg  Skin-Rabbit LD50 >7940 mg/kg	<b>EU DSD/DPD:</b> Annex I: R31 R43 N; R50-53 <b>EU CLP:</b> Annex VI: Skin Sens. 1, H317; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 <b>OSHA HCS 2012:</b> Skin Sens. 1A	NDA

Refer to Section 11 for Toxicological Information.

## \* Section 4. First-Aid Measures

- **Inhalation** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- **Skin** Remove material from skin with waterless hand cleaners followed by washing with soap and water. If signs/symptoms develop, get medical attention.
- **Eye** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- **Ingestion** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

### Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

### Indication of any immediate medical attention and special treatment needed

#### • Note to physician

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

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## \* Section 5. Fire-Fighting Measures

### **Extinguishing media**

- **Suitable Extinguishing Media:** Water, foam, dry chemical, carbon dioxide (CO<sub>2</sub>).
- **Unsuitable Extinguishing Media:** None known.

### **Special hazards arising from the substance or mixture**

- **Unusual Fire and Explosion Hazards:** Material releases toxic and corrosive gases/vapors when burned.
- **Hazardous Combustion Products:** Nitrous oxides, sulfur oxides, carbon oxides.

### **Advice for firefighters**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection.

## \* Section 6. Accidental Release Measures

### **Personal precautions, protective equipment and emergency procedures**

- **Personal Precautions** No special precautions expected to be necessary if material is used under ordinary conditions as recommended.
- **Emergency Procedures** No emergency procedures are expected to be necessary if material is used under ordinary conditions as as recommended. Use normal clean up procedures.
- **Environmental precautions** No special precautions necessary.

### **Methods and material for containment and cleaning up**

- **Containment/Clean-up Measures** Pick up pieces and place in container or bag for disposal.

### **Reference to other sections**

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

## \* Section 7. Handling and Storage

### **Precautions for safe handling**

- **Handling** Do not handle at temperatures in excess of 130° F. Avoid prolonged or repeated contact with the skin. Use good safety and industrial hygiene practices. Product readily removed from the skin with waterless hand cleaners followed by washing with soap and water.

### **Conditions for safe storage, including any incompatibilities**

- **Storage** Store in a cool, dry place. Do not store at temperatures in excess of 130° F.
- **Specific end uses** Refer to Section 1.2 - Relevant identified uses.

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## \* Section 8. Exposure Controls/Personal Protection

Exposure Limits/Guidelines						
	Result	ACGIH	Belgium	Canada Alberta	Canada British Columbia	Canada Manitoba
Formaldehyde (50-00-0)	Ceilings	0.3 ppm Ceiling	Not Established	1 ppm Ceiling; 1.3 mg/m <sup>3</sup> Ceiling	1 ppm Ceiling	0.3 ppm Ceiling
	TWAs	Not Established	Not Established	207 rro "VY C" 20 b i b 5 "VY C"	0.3 ppm TWA	Not established
TMDS *359/48/+	TWAs	207 b i b 5 "VY C" *kj crdng "tcevkq" cpf "xcrqt +	207 b i b 5 "VY C" *cgt quqrl'cpf "xcrqt +" 2027 rro "VY C" *cgt quqrl'cpf "xcrqt +	3 b i b 5 "VY C"	3 b i b 5 "VY C"	207 b i b 5 "VY C" *kj crdng "tcevkq" cpf "xcrqt +
Talc *36: 29/; 8/8+	TWAs	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA *gur kcdng particulate)	2 mg/m <sup>3</sup> TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate)	2 mg/m <sup>3</sup> TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)
3/Rt qrgpg. 4/ methyl- *337/33/9-	TWAs	472 rro "VY C" *kugf "wpf gt " Dwpggu. 'cnlkuqo gt u+	472 rro "VY C" 7: 5 b i b 5 "VY C"	Not Established	Not Established	472 rro "VY C" *kugf "wpf gt " Dwpggu. 'cnlkuqo gt u+
ENB (16219-75-3)	Ceilings	5 ppm Ceiling	Not Established	5 ppm Ceiling; 25 mg/m	5 ppm ceiling	5 ppm Ceiling
Sulfur (7704-34-9)	TWAs	Not established	Not established	10 mg/m <sup>3</sup> TWA	Not established	Not established
Zinc oxide (1314-13-2)	STELs	10 mg/m <sup>3</sup> STEL (respirable fraction)	10 mg/m <sup>3</sup> STEL (fume)	10 mg/m <sup>3</sup> STEL (respirable)	10 mg/m <sup>3</sup> STEL (respirable)	10 mg/m <sup>3</sup> STEL (respirable fraction)
	TWAs	2 mg/m <sup>3</sup> TWA (respirable fraction)	0 mg/m <sup>3</sup> TWA (dust); 5 mg/m <sup>3</sup> TWA (fume)	2 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (respirable fraction)
Carbon Black (1333-86-4)	TWAs	3 mg/m <sup>3</sup> TWA (inhalable fraction)	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA	3 mg/m <sup>3</sup> TWA (inhalable)	3 mg/m <sup>3</sup> TWA (inhalable fraction)
Exposure Limits/Guidelines Continued						
Formaldehyde (50-00-0)	Result	Canada New Brunswick	Canada Nunavut	Canada Nova Scotia	Canada Northwest Territories	Canada Ontario
	STELs	1.5 ppm STEL	Not established	Not established	Not established	1.0 ppm STEL
	TWAs	0.5 ppm TWA	Not established	Not established	Not established	Not established
	Ceilings	Not established	2 ppm Ceiling; 2.4 mg/m <sup>3</sup> Ceiling	0.3 ppm Ceiling	2 ppm Ceiling; 2.4 mg/m <sup>3</sup> Ceiling	1.5 ppm Ceiling
TMDS (137-26-8)	TWAs	1 mg/m <sup>3</sup> TWA	5 mg/m <sup>3</sup> TWA	0.05 mg/m <sup>3</sup> TWA (inhalable fraction and vapor)	5 mg/m <sup>3</sup> TWA	0.05 mg/m <sup>3</sup> TWA (inhalable fraction and vapor, listed under Thiram)
	STELs	Not established	10 mg/m <sup>3</sup> STEL	Not established	10 mg/m <sup>3</sup> STEL	Not established

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Talc (14807-96-6)	TWAs	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable fraction)	3 mg/m3 TWA (respirable mass); 6 mg/m3 TWA (total mass)	2 mg/m3 TWA (containing no Asbestos and <1% Crystalline silica, respirable)
1-Propene, 2-methyl- (115-11-7)	TWAs	Not established	Not established	250 ppm TWA (listed under Butenes, all isomers)	Not established	250 ppm TWA (listed under Butenes, all isomers)
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (fume)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)
	TWAs	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, dust); 5 mg/m3 TWA (fume)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable fraction)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3 mg/m3 TWA (inhalable fraction)	3.5 mg/m3 TWA	3.5 mg/m3 TWA
	STELs	Not established	7 mg/m3 STEL	Not established	7 mg/m3 STEL	Not established

### Exposure Limits/Guidelines Continued

	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	NIOSH	OSHA
Formaldehyde (50-00-0)	STELs	Not established	Not established	Not established	Not established	2 ppm STEL (see 29 CFR 1910.1048)
	Ceilings	2 ppm Ceiling; 3 mg/m3 Ceiling	Not established	2 ppm Ceiling; 3 mg/m3 Ceiling	0.1 ppm Ceiling (15 min)	Not established
	TWAs	Not established	Not established	Not established	0.016 ppm TWA	0.75 ppm TWA
TMDS (137-26-8)	TWAs	5 mg/m3 TWAEV	1 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA	5 mg/m3 TWA
	STELs	Not established	Not established	10 mg/m3 STEL	Not established	Not established
	Ceiling	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
Talc (14807-96-6)	TWAs	3 mg/m3 TWAEV (respirable dust)	2 mg/m3 TWA (respirable fraction)	20 mppcf TWA	2 mg/m3 TWA (containing no Asbestos and <1% Quartz, respirable dust)	Not established
Isoprene (78-79-5)	Ceilings	Not established	Not established	Not established	Not established	Not established
	MAKs	Not established	Not established	Not established	Not established	Not established
ENB (16219-75-3)	Ceilings	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established	5 ppm Ceiling; 25 mg/m3 Ceiling	5 ppm Ceiling; 25 mg/m3 Ceiling	Not established
Zinc oxide (1314-13-2)	TWAs	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)	2 mg/m3 TWA (dust and fume, respirable fraction)	5 mg/m3 TWA (fume); 30 mppcf TWA (dust); 10 mg/m3 TWA (dust)	5 mg/m3 TWA dust and fume	5 mg/m TWA (fume); 15 mg/m TWA total dust) 5 mg/m TWA (respirable fraction)

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Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEV (fume)	Not established	10 mg/m3 STEL (fume); 20 mg/ m3 STEL (dust)	10 mg/m3 STEL (fume)	Not established
	Ceilings	Not established	Not established	Not established	15 mg/m Ceiling dust)	Not established
	MAKs	Not established	Not established	Not established	Not established	1 mg/m3 TWA MAK (fume, respirable fraction)
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWAEV	3.5 mg/m3 TWA	3.5 mg/m3 TWA	3.5 mg/m3 TWA; 0.1 mg/m3 TWA (Carbon black in presence of Polycyclic aromatic hydrocarbons, as PAH)	3.5 mg/m3 TWA
		Not established	Not established	7 mg/m3 STEL		

## Exposure controls

**Engineering Measures/Controls** Under normal conditions of use, special ventilation is not required.

### Personal Protective Equipment

- **Respiratory** No respiratory protection is required under normal conditions of use.
  - **Eye/Face** Under normal conditions of use, eye protection is not required.
  - **Skin/Body** Wear appropriate gloves.
- Follow best practice for site cleanup and disposal of waste.

## Environmental Exposure Controls

### Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

Time-Weighted Averages are based on 8h/day, 40h/week TWA exposures

## \* Section 9. Physical and Chemical Properties

### Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Black solid (EPDM) laminated to tape. No odor.
Color	Black	Odor	None
Odor Threshold	None		
General Properties			
Boiling Point	Not relevant	Melting Point	Data lacking
Decomposition Temperature	Data lacking	pH	Not relevant
Specific Gravity/Relative Density	0.97 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	Not relevant	Explosive Properties	Not relevant.
Oxidizing Properties	Not relevant.		
Volatility			
Vapor Pressure	Not relevant	Vapor Density	Not relevant
Evaporation Rate	Not relevant	Volatiles (Vol.)	0.7 %

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## Flammability

<b>Flash Point</b>	> 200 C (> 392 F)	<b>UEL</b>	Not relevant
<b>LEL</b>	Not relevant	<b>Autoignition</b>	Not relevant
<b>Flammability (solid, gas)</b>	Not flammable.		

## Environmental

**Octanol/Water Partition coefficient** Data lacking

## Other Information

No additional physical and chemical parameters noted.

## \* Section 10. Stability and Reactivity

### Reactivity

- **Chemical stability**  
No dangerous reaction known under conditions of normal use.
- **Possibility of hazardous reactions**  
Stable under normal temperatures and pressures. Hazardous polymerization will not occur.
- **Conditions to avoid**  
Temperatures in excess of 130° F.
- **Incompatible materials**  
No data available.
- **Hazardous decomposition products**  
Thermal decomposition could produce CO, CO<sub>2</sub>, and Oxides of Nitrogen.

## \* Section 11. Toxicological Information

Component Name	CAS	Data
Phenol, p-(1,1,3,3-tetramethylbutyl)- (2% TO 4%)	140-66-9	<b>Acute Toxicity:</b> orl-rat LD50:4600 mg/kg; skn-rbt LD50:1880 mg/kg; <b>Irritation:</b> eye-rbt 50 ug/24H SEV; skn-rbt 20 mg/24H MOD; <b>Reproductive:</b> orl-mus TDLo:2.4 mg/kg (10-21D preg/12D post); orl-mus TDLo:14000 ng/kg (11-17D preg); orl-rat TDLo:250.4 mg/kg (0-8D preg)
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic (0% TO 4%)	64742-52-5	<b>Irritation:</b> skn-rbt 500 mg SEV
Carbon Black (1% TO 4%)	1333-86-4	<b>Acute Toxicity:</b> orl-rat LD50:>15400 mg/kg; skn-rbt LD50:>3 gm/kg; <b>Tumorigen/Carcinogen:</b> ihl-rat TCLo:11600 ug/m3/18H/2Y-I
Talc (0% TO 6%)	14807-96-6	<b>Irritation:</b> skn-hmn 300 ug/3D-I MLD; <b>Tumorigen/Carcinogen:</b> ihl-rat TC :11 mg/m3/1Y-I
Zinc oxide (0.5% TO 2.5%)	1314-13-2	<b>Irritation:</b> eye-rbt 500 mg/24H MLD; skn-rbt 500 mg/24H MLD; <b>Reproductive:</b> orl-rat TDLo:6846 mg/kg (1-22D preg)
MBTS (0% TO 1%)	120-78-5	<b>Acute Toxicity:</b> orl-rat LD50:>12 gm/kg; skn-rbt LD50:>7940 mg/kg
p-Benzoquinone, 2,3,5,6-tetrachloro- (0% TO 1.5%)	118-75-2	<b>Acute Toxicity:</b> orl-rat LD50:4 gm/kg; ihl-rat LC50:2485 mg/m3/4H

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Component Name	CAS	Data
TMDS (0% TO 1%)	137-26-8	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 560 mg/kg; ihl-rat LC50: 500 mg/m <sup>3</sup> /4H; <b>Irritation:</b> eye-rbt 100 mg/24H MOD; <b>Reproductive:</b> orl-rat TDLo: 300 mg/kg (15D preg); <b>Tumorigen/Carcinogen:</b> orl-rat TDLo: 108 mg/kg/1Y-C
<b>GHS Properties</b>		<b>Classification</b>
<b>Acute toxicity</b>		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Aspiration Hazard</b>		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Carcinogenicity</b>		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Germ Cell Mutagenicity</b>		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Skin corrosion/Irritation</b>		EU/CLP • Skin Irritation 2 OSHA HCS 2012 • Skin Irritation 2
<b>Skin sensitization</b>		EU/CLP • Skin Sensitizer 1 OSHA HCS 2012 • Skin Sensitizer 1A
<b>STOT-RE</b>		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>STOT-SE</b>		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Toxicity for Reproduction</b>		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Respiratory sensitization</b>		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met
<b>Serious eye damage/Irritation</b>		EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met

## Potential Health Effects Inhalation

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

## Skin

- **Acute (Immediate)** Causes skin irritation. May cause an allergic skin reaction. Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)**

## Eye

- **Acute (Immediate)** Direct contact with tape may cause mechanical irritation.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

## Ingestion

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

## Carcinogenic Effects

Although this material does contain several components that are either carcinogens or potential carcinogens the material as a whole is not classified as a carcinogen according to regulatory guidelines. The carbon black is encapsulated within the matrix of this material and no exposure is expected. The isoprene and formaldehyde components are both in this material at low enough concentrations that this material is not classified as a carcinogen per agency guidelines.

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## Carcinogenic Effects

	CAS	OSHA	IARC	NTP
Formaldehyde	50-00-0	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Isoprene	78-79-5	Not Listed	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen
Carbon Black	1333-86-4	Not Listed	Group 2B-Possible Carcinogen	Not Listed

### Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

MLD = Mild

MOD = Moderate

SEV = Severe

TC = Toxic Concentration

TD = Toxic Dose

## \* Section 12. Ecological Information

### Toxicity

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

### Behavior in environmental systems

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

### Ecotoxicological effects

- **Remark:** No further relevant information available.

### Additional ecological information

**General notes:** At present there are no ecotoxicological assessments.

### Results of PBT and vPvB

- **assessment PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

## \* Section 13. Disposal Considerations

### Waste treatment methods

- **Product waste handling**
- **Recommendation:** Dispose of waste product and/or container according to local, regional, state, and national/international regulations.

### Packaging waste handling

- **Recommendation:** Dispose of packaging or container according to local, regional, state, and national/international regulations.

## \* Section 14. Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA

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<b>TDG</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>IMO/IMDG</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>ADN</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>ADR/RID</b>	NDA	Not Regulated	NDA	NDA	NDA
<b>IATA/ICAO</b>	NDA	Not Regulated	NDA	NDA	NDA

• **Special precautions for user**

None known.

• **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not Relevant.

\* **Section 15. Regulatory Information**

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications Acute

**State Right To Know**

Component	CAS	MA	NJ	PA
1-Propene, 2-methyl-	115-11-7	Yes	Yes	Yes
ENB	16219-75-3	Yes	Yes	Yes
MBTS	120-78-5	No	No	No
Calcium oxide	1305-78-8	Yes	Yes	Yes
Carbon Black	1333-86-4	Yes	Yes	Yes
TMDS	137-26-8	Yes	Yes	Yes
Ethylene propylene diene rubber	25038-36-2	No	No	No
Formaldehyde	50-00-0	Yes	Yes	Yes
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	No	No	No
Isobutylene-Isoprene polymer	9010-85-9	No	No	No
Isoprene	78-79-5	Yes	Yes	Yes
p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	No	No	No
Phenol, 4-methyl	68610-51-5	No	No	No
Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	No	No	No
Polybutene	9003-29-6	No	No	No
Sulfur	7704-34-9	Yes	Yes	Yes
Talc	14807-96-6	Yes	Yes	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes

**Inventory**

Component	CAS	Canada DSL	Canada NDSL
1-Propene, 2-methyl-	115-11-7	Yes	No
ENB	16219-75-3	No	Yes
MBTS	120-78-5	Yes	No
Calcium oxide	1305-78-8	Yes	No

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<b>Inventory</b>			
Carbon Black	1333-86-4	Yes	No
TMDS	137-26-8	Yes	No
Ethylene propylene diene rubber	25038-36-2	Yes	No
Formaldehyde	50-00-0	Yes	No
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Yes	No
Isobutylene-Isoprene polymer	9010-85-9	Yes	No
Isoprene	78-79-5	Yes	No
p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Yes	No
Phenol, 4-methyl	68610-51-5	Yes	No
Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Yes	No
Polybutene	9003-29-6	Yes	No
Sulfur	7704-34-9	Yes	No
Talc	14807-96-6	Yes	No
Zinc oxide	1314-13-2	Yes	No

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	Not Listed A, B1, D1A, D2A, D2B; B3, 1A, D2A, D2B, E (regulated under Formol)
• Calcium oxide	1305-78-8	E
• Carbon Black	1333-86-4	D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues -Carbon Black, non-respirable on Health Canada's WHMIS Division website.) D2A Uncontrolled product according to WHMIS classification criteria
Talc	14807-96-6	D2A
Zinc oxide	1314-13-2	Uncontrolled product according to WHMIS classification criteria
Zinc oxide as Zinc compounds		Not Listed
Polybutene	9003-29-6	Uncontrolled product according to WHMIS classification criteria

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<b>Sulfur</b>	7704-34-9	<b>B4</b>
<b>ENB</b>	16219-75-3	<b>B2, D1A, D2B</b>
<b>p-Benzoquinone, 2,3,5,6-tetrachloro-</b>	118-75-2	<b>Not Listed</b>
<b>Phenol, p-(1,1,3,3-tetramethylbutyl)-</b>	140-66-9	<b>Uncontrolled product according to WHMIS classification criteria</b>
<b>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</b>	64742-52-5	<b>Not Listed</b>

## Canada

### WHMIS - Ingredient Disclosure List

<b>Phenol, 4-methyl</b>	68610-51-5	<b>Not Listed</b>
<b>Isobutylene-Isoprene polymer</b>	9010-85-9	<b>Not Listed</b>
<b>Isoprene</b>	78-79-5	<b>1 %</b>
<b>1-Propene, 2-methyl-</b>	115-11-7	<b>Not Listed</b>
<b>MBTS</b>	120-78-5	<b>1 %</b>
<b>Ethylene propylene diene rubber</b>	25038-36-2	<b>Not Listed</b>
<b>TMDS</b>	137-26-8	<b>1 %</b>
<b>Formaldehyde</b>	50-00-0	<b>0.1 %</b>
<b>Calcium oxide</b>	1305-78-8	<b>1 %</b>
<b>Carbon Black</b>	1333-86-4	<b>1 %</b>
<b>Talc</b>	14807-96-6	<b>Not Listed</b>
<b>Zinc oxide</b>	1314-13-2	<b>1 %</b>
<b>Zinc oxide as Zinc compounds</b>		<b>Not Listed</b>
<b>Polybutene</b>	9003-29-6	<b>Not Listed</b>
<b>Sulfur</b>	7704-34-9	<b>Not Listed</b>
<b>ENB</b>	16219-75-3	<b>1 %</b>
<b>p-Benzoquinone, 2,3,5,6-tetrachloro-</b>	118-75-2	<b>Not Listed</b>
<b>Phenol, p-(1,1,3,3-tetramethylbutyl)-</b>	140-66-9	<b>Not Listed</b>
<b>Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic</b>	64742-52-5	<b>Not Listed</b>

## Environment

### Canada - CEPA - Priority Substances List

<b>Phenol, 4-methyl</b>	68610-51-5	<b>Not Listed</b>
<b>Isobutylene-Isoprene polymer</b>	9010-85-9	<b>Not Listed</b>
<b>Isoprene</b>	78-79-5	<b>Not Listed</b>
<b>1-Propene, 2-methyl-</b>	115-11-7	<b>Not Listed</b>
<b>MBTS</b>	120-78-5	<b>Not Listed</b>
<b>Ethylene propylene diene rubber</b>	25038-36-2	<b>Not Listed</b>
<b>TMDS</b>	137-26-8	<b>Not Listed</b>
<b>Formaldehyde</b>	50-00-0	<b>Priortiy Substance List 2 (substance considered toxic)</b>
<b>Calcium oxide</b>	1305-78-8	<b>Not Listed</b>
<b>Carbon Black</b>	1333-86-4	<b>Not Listed</b>
<b>Talc</b>	14807-96-6	<b>Not Listed</b>
<b>Zinc oxide</b>	1314-13-2	<b>Not Listed</b>
<b>Zinc oxide as Zinc compounds</b>		<b>Not Listed</b>

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Polybutene	9003-29-6	Not Listed
Sulfur	7704-34-9	Not Listed
ENB	16219-75-3	Not Listed
p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

## United States

### Labor

#### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	1000 lb TQ
• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

#### U.S. - OSHA - Specifically Regulated Chemicals

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed
• Formaldehyde	50-00-0	2 ppm STEL (Irritant and potential cancer hazard, See 29 CFR 1910.1048, 15 min); 0.5 ppm Action Level ; 0.75 ppm TWA
• Calcium oxide	1305-78-8	Not Listed
• Carbon Black	1333-86-4	Not Listed
• Talc	14807-96-6	Not Listed

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• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Polybutene	9003-29-6	Not Listed
• Sulfur	7704-34-9	Not Listed
• ENB	16219-75-3	Not Listed
• p-Benzoquinone, 2,3,5,6-tetrachloro-	118-75-2	Not Listed
• Phenol, p-(1,1,3,3-tetramethylbutyl)-	140-66-9	Not Listed
• Mineral oil, petroleum distillates, hydrotreated (mild) heavy naphthenic	64742-52-5	Not Listed

## Environment

### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Phenol, 4-methyl	68610-51-5	Not Listed
• Isobutylene-Isoprene polymer	9010-85-9	Not Listed
• Isoprene	78-79-5	Not Listed
• 1-Propene, 2-methyl-	115-11-7	Not Listed
• MBTS	120-78-5	Not Listed
• Ethylene propylene diene rubber	25038-36-2	Not Listed
• TMDS	137-26-8	Not Listed

U.S. - California - Proposition 65 - Carcinogens List: Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity: Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MAD): Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL): Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female: Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male: Not Listed

## United States - Pennsylvania

### Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List: Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances: Not Listed

**Chemical Safety Assessment:** Chemical Safety Assessment is not required.

## \* Section 16. Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation/ last revision** 03/21/2007

### • Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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• **Trade name:** Royal Edge Walkway Pad

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IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

End of SDS

**\* Section 1. Identification****Product identifier:** Lap Sealant

- **Trade name:** RPI Royal Edge Lap Caulk
- **Product Code:** LC

**Relevant identified uses of the substance or mixture**

Sealant/caulk for single-ply membrane roofing systems.

**Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**  
Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078  
Information Phone Number: 574-293-9096  
Information Department: Technical Services Department

**Emergency Telephone Number**Chemtrec: 800-424-9300  
Chemtrec International: 703-527-3887**\* Section 2. Hazard(s) Identification****Classification of the substance or mixture**

GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

**Label elements**

- **GHS label elements:** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02

**Signal word: DANGER****Hazard statements**

Highly flammable liquid and vapor.  
Vapors may ignite explosively under certain conditions.  
Fumes may aggravate pre-existing eye, lung, and skin conditions.  
Keep away from open flames, sparks, and other sources of ignition.  
Avoid contact with skin and eyes. Eye contact may cause serious irritation, redness, and blurred vision.  
Prolonged skin contact may cause dermatitis and drying of skin.

**Precautionary statements**

Prevention: Read label before use. If medical advice is needed, have product container or label at hand.  
Keep out of reach of children. Do not use indoors or in confined airspace.  
Wear protective gloves, clothing, and eyeglasses.  
Keep away from heat/sparks/open flames/hot surfaces. Do Not smoke while using.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Keep container tightly closed.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Store in a well-ventilated place. Keep cool.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)

Trade name: Royal Edge Lap Caulk

(Contd. of page 1)

### Classification system

- NFPA ratings (scale 0 - 4)



- HMIS-ratings (scale 0 - 4)

HEALTH	1	Health = 1
FIRE	3	Fire = 3
PHYSICAL HAZARD	0	Physical Hazard = 0

### Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

## \* Section 3. Composition/Information on Ingredients

- Chemical characterization:** Mixtures
- Description:** Mixture of the substances listed below with nonhazardous additions.

Dangerous components	CAS Identifiers	Common Name	Weight
Solvent naphtha (petroleum), light aliph.(VM&P)	64742-89-8	Naptha	25-50 %
Non-hazardous	EPA TSCA Registered	None	<82%

Any concentration shown as a range is to protect confidentiality or due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations represented, are classified as hazardous to health or the environment and hence require reporting in this section

## \* Section 4. First-Aid Measures

### Description of first aid measures

- After inhalation:** Remove to fresh air. Administer oxygen if breathing is labored. Give artificial respiration if breathing is stopped. Do not give mouth to mouth respiration. Use a proper respiratory medical device. Seek immediate medical attention if oxygen or artificial respiration is administered.
- After skin contact:** Remove contaminated clothing. Remove material with rubbing alcohol and immediately wash with water and soap and rinse thoroughly. Call emergency 911 or other medical service personnel.
- After eye contact:** Rinse opened eye for several minutes under clean running water, consult a physician.
- After swallowing:** Do not induce vomiting. Do not give mouth to mouth respiration if victim has swallowed the material. Seek immediate medical treatment.

### Most important symptoms and effects, both acute and delayed

#### Acute symptoms

- Inhalation:** Sensitive individuals may exhibit eye, nose, throat or dermal irritation with pronged exposure to processing fumes or vapors. May cause respiratory system irritation and central nervous system depression with headache, dizziness, muscular weakness and fatigue. May cause unconsciousness if exposure is excessive.
- Skin:** May cause dermatitis and drying of the skin. May aggravate pre-existing skin conditions.
- Eye:** Eye contact may cause irritation, tearing, and blurred vision.

### Indication of any immediate medical attention and special treatment needed

- Information for Physician**

If the material is ingested and is aspirated into the lungs, it may cause chemical pneumonitis. Treat appropriately.

Trade name: Royal Edge Lap Caulk

(Contd. of page 2)

### **Environmental precautions**

Do not allow product to enter sewage system or water course, surface or ground water.  
Inform respective authorities in case of seepage into water course, ground water or sewage system.

- **Methods and material for containment and cleaning up:**

Dispose of contaminated material as waste in accordance with federal state and local regulations.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## \* **Section 5. Fire-Fighting Measures**

### **Extinguishing media**

- **Suitable extinguishing agents:** CO<sub>2</sub>, extinguishing powder or water fog. Fight large fires with alcohol resistant foam or water spray.
- **Unsuitable extinguishing agents:**  
Do not use a direct water stream. Product will float on water surface and may re-ignite.
- **Specific hazards arising from material:**  
Flammable liquid and vapor. In a fire or if heated, an increase in pressure may cause the container to burst. Toxic vapors and fumes may be released.
- **Advice for firefighters:**  
Carbon dioxide, carbon monoxide, acrid smoke and irritating fumes will occur during a fire. Explosive vapors are heavier than air and may collect in low or confined areas. Empty containers may contain explosive vapors. Use water spray to keep fire-exposed containers cool. Do not allow water used in fire suppression to be discharged into waterways, sewers, or drains.
- **Protective equipment:**  
Wear impermeable protective clothing and self-contained breathing apparatus.

## \* **Section 6. Accidental Release Measures**

### **Personal precautions, protective equipment and emergency procedures**

- **Personal Precautions:** Eliminate any/all sources of open flame, sparks, or ignition. Ensure adequate ventilation to prevent concentration of fumes or vapors. Wear protective gloves, clothing, and eyeglasses. Wear appropriate respirator when ventilation is inadequate. Do not smoke. Use non-sparking tools to clean up.

### **Methods and materials for clean-up and containment**

Clean up using inert materials. Collect material and dispose in secure containers in accordance with local, state, and federal regulations.

- **Environmental Precautions:** Do not allow product to enter water course or sewage system. Do not allow product to enter drains, sewers or ground water. Notify respective environmental authorities of any seepage into sewer, drainage, or ground water.
- **Reference to other sections**
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

(Contd. on page 4)

Trade name: Royal Edge Lap Caulk

(Contd. of page 3)

\* **Section 7. Handling and Storage**

**Handling**

• **Precautions for safe handling:**

Wear protective nitrile gloves when handling. Do not get on skin or in eyes. Do not ingest. Wash contaminated clothing prior to reuse.

• **Advice on general occupational hygiene:**

Eating, drinking, and smoking should be prohibited in areas where this material is handled, processed, or stored. See Section 8 for additional information on hygiene measures.

• **Information about protection against explosions and fires:**

Store in cool, dry, well ventilated area away from direct heat (60-90 degrees F). Keep away from heat, sparks, and open flames. Vapors are heavier than air and may collect in low or confined areas.  
Keep respiratory protective device available.

**Conditions for safe storage, including any incompatibilities**

• **Storage**

• **Requirements to be met by storerooms and receptacles:** No special requirements.

• **Information about storage in one common storage facility:** Store as flammable liquid.

• **Further information about storage conditions:** Keep material tightly sealed in original containers.

**Specific end use(s)** Sealant for lap edges of single-ply membrane roofing systems.

\* **Section 8. Exposure Controls/Personal Protection**

• **Additional information about design of technical systems:** No further data; see item 7.

**Control parameters**

• **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored the workplace.

• **Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls**

• **Personal protective equipment (see listings below)**

• **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

• **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

• **Protection of hands:** Wear protective neoprene, nitrile, or viton gloves. Consult glove manufacturer for break-thru time.



• **Eye protection:** Wear protective eyeglasses with side shields



• **Body protection:** Protective work clothing



**Trade name: Royal Edge Lap Caulk**

*(Contd. of page 4)*

**\* Section 9. Physical and Chemical Properties**

**Information on basic physical and chemical properties**

- **General Information**

- **Appearance**

- **Form:** Paste
- **Color:** Black
- **Odor:** Characteristic

- **Change in condition**

- **Melting point:** Undetermined.
- **Boiling point:** 124 °C (255 °F)

- **Flash point:** 10 °C (50 °F)

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Specific gravity:** 1.070

- **Solubility in / Miscibility with Water:** Insoluble.

- **Solvent content**

- **Organic solvents:** 35 %

- **Solids content:** 65 %

- **Other information**  
VOC: = 3.12 LBS/GAL)  
Weight per gallon: = 8.92 LBS

**\* Section 10. Stability and Reactivity**

- **Reactivity:**

*Stable at ambient temperatures and pressures.*

- **Chemical stability:**

*The product is stable.*

**Thermal decomposition / conditions to be avoided**

*Under normal conditions of storage and when used according to specifications, hazardous decomposition products should not be produced.*

- **Possibility of hazardous reactions:**

*The product is incompatible with strong oxidizers, acids and bases.*

- **Conditions to avoid:**

*Avoid all possible sources of ignition (sparks or flames). Do not pressurize, weld, braze, solder, grind, drill or expose containers to heat. Intended for outdoor use. Do not store or use in unventilated, confined areas. Fumes or vapors may accumulate in low areas. Residue in empty containers may release fumes and vapors.*

- **Incompatible materials:**

*Incompatible with strong oxidizing agents, acids and bases.*

- **Hazardous decomposition products:**

*OXIDES OF CARBONS AND NITROGEN UNDER BURNING CONDITIONS.*

**\* Section 11. Toxicological Information**

**Information on toxicological effects**

- **Acute toxicity:**

*Inhalation may cause respiratory system irritation and central nervous system depression characterized by fatigue and weakness, headache, dizziness, and muscular weakness.*

*(Contd. on page 6)*



**Trade name: Royal Edge Lap Caulk**

*(Contd. of page 5)*

**Primary irritant effect**

- **on the skin:** May irritate the skin. Prolonged contact may cause dermatitis and drying of the skin.
- **on the eye:** Eye contact may cause irritation, redness, tearing, and blurred vision.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

**\* Section 12. Ecological Information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

**Additional ecological information**

- **General notes:**  
Water hazard class 3 (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**\* Section 13. Disposal Considerations**

**Waste treatment methods**

- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow disposed product to reach sewage system or groundwater.

**Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

**\* Section 14. Transport Information**

**UN-Number**

- **DOT, ADR, IMDG, IATA** UN1133

**UN proper shipping name**

- **DOT** Adhesives
- **ADR** 1133 Adhesives
- **IMDG, IATA** ADHESIVES

*(Contd. on page 7)*

**Trade name: Royal Edge Lap Caulk**

*(Contd. of page 6)*

**Transport hazard class(es)**

- DOT



- Class 3 Flammable liquids.
- Label 3

**ADR, IMDG, IATA**



- Class 3 Flammable liquids
- Label 3

**Packing group**

- DOT, ADR, IMDG, IATA III
- Environmental hazards: Not applicable.
- Special precautions for user Warning: Flammable liquids
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

**Transport/Additional information:**

- IMDG
- Remarks: Non regulated
- UN "Model Regulation": UN1133, ADHESIVES, 3, III

**\* Section 15. Regulatory Information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Sara
- Section 355 (extremely hazardous substances):  
*None of the ingredients is listed.*

**Section 313 (Specific toxic chemical listings):**

*None of the ingredients is listed.*

**TSCA (Toxic Substances Control Act):**

*All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.*

**Proposition 65**

- Chemicals known to cause cancer:  
*All ingredients are listed.*
- Chemicals known to cause reproductive toxicity:  
*None of the ingredients is listed.*

**(DSL) Canada Domestic Substance List**

*All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.*

**Carcinogenicity categories**

*(Contd. on page 8)*

**Trade name: Royal Edge Lap Caulk**

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• **EPA (Environmental Protection Agency)**

*None of the ingredients is listed.*

• **TLV (Threshold Limit Value established by ACGIH)**

*None of the ingredients is listed.*

• **MAK (German Maximum Workplace Concentration)**

*None of the ingredients is listed.*

• **NIOSH-Ca (National Institute for Occupational Safety and Health)**

*None of the ingredients is listed.*

• **OSHA-Ca (Occupational Safety & Health Administration)**

*None of the ingredients is listed.*

**National regulations**

- **Water hazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

\* **Section 16. Other Information**

*Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.*

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 05/28/2003
- **Date of preparation / last revision** 03/11/2014 / 2
- **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*End of SDS*

**\* Section 1. Identification****Product identifier**

- **Trade name:** Royal Edge Water Cut-Off Mastic
- **Relevant identified uses of the substance or mixture:** Construction: Sealing Compound

**Details of the supplier of the safety data sheet Manufacturer/Supplier**

Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078  
Telephone: 1-574-293-9096  
Information Department: Technical Services Department

**Emergency telephone number**

Chemtrec United States 1(800) 424-9300 International 703-527-3887

**\* Section 2. Hazard(s) Identification****EU/EEC**

According to EU Directive 1272/2008 (CLP)/REACH 1907/2006 (amended by 453/2010)  
According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

**Classification of the substance or mixture**

- **CLP**  
Flammable Liquids 2 - H225  
Skin Irritation 2 - H315  
Hazardous to the aquatic environment Chronic 2-411
- **DSD/DPD**  
Flammable  
Dangerous to the Environment (N)  
R11, R51/53

**Label Elements**

- **CLP**

**DANGER****Hazard statements**

H225 - Highly flammable liquid and vapour  
H441 - Toxic to aquatic life with long lasting effects

**Precautionary statements**

- **Prevention**  
P210 - Keep away from heat, sparks, open flames and/or hot surfaces. Do not smoke.  
P264 - Wash thoroughly after handling.  
P273 - Avoid release into environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P243 - Take precautionary measures against static discharge.  
P241 - Use explosion proof electrical/ventilation/lighting/equipment.  
P235 - Keep container tightly closed and in cool area.
- **Response**  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P321 - Specific treatment, see supplemental first aid information.  
P362 - Take off contaminated clothing and wash before reuse.  
P391 - Collect spillage
- **Storage/Disposal**  
P403+P235 Store in a well-ventilated area. Keep product cool.  
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

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- **DSD/DPD**



- **Risk phrases**

R11 - Highly Flammable.  
R51/53 - Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

## Other Hazards

- **CLP** According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
- **DSD/DPD** According to European Directive 1999/45/EC this preparation is considered dangerous.

## UN GHS

According to Third Revised Edition

Classification of the substance or mixture

- **UN GHS** Flammable Liquids 2 - H225  
Skin Irritation 2 - H315  
Eye Irritation 2 - H319

## Label elements

- **UN GHS**

**DANGER**



## Hazard statements

Highly flammable liquid and vapour - H225  
Causes skin irritation - H315  
Causes serious eye irritation - H319

## Precautionary statements

- **Prevention**

P210 - Keep away from heat, sparks, open flames and/or hot surfaces. Do not smoke.  
P233 - Keep container tightly closed.  
P235 - Keep product cool.  
P240 - Ground and/or bond container and receiving equipment.  
P241 - Use explosion-proof electrical, ventilation and/or lighting equipment.  
P243 - Take precautionary measures against static discharge.  
P264 - Wash thoroughly after handling.  
P280 - Wear protective gloves and eye/face protection.
- **Response**

P370+P378 - In case of fire: Use appropriate media for extinction.  
P302+352 - IF ON SKIN: Wash with plenty of soap and water.  
P362 - Take off contaminated clothing and wash before re-use.  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P302+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing.  
P337+P212 - If eye irritation persists: Get medical advice/attention.
- **Storage/Disposal**

P403+P235 - Store in a well-ventilated place. Keep cool.  
P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Other hazards

- **UN GHS** According to the Globally Harmonized System for Classification and Labeling (GHS) the product is considered hazardous.

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## United States (US)

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### According to OSHA 29 CFR 1910.1200 HCS

- **OSHA HCS 2012** Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

### Classification of the substance or mixture

- **OSHA HCS 1994** Flammable Liquid  
Flammable /Combustibl Class IB  
Irritant  
Target Organ Effect - Central Nervous System (CNS)

### Label elements

- **OSHA HCS 1994** Not required.

### Other Hazards

**OSHA HCS 1994** Under United States Regulations (29 cgr 1910.1200 -Hazard Communication Standard), this product is considered hazardous.

## Canada

- According to WHMIS

### Classification of the substance or mixture

**WHMIS** Flammable Liquids - B2  
Other Toxic Effects - D2A  
Other Toxic Effects - D2B

### Label elements

**WHMIS** Flammable Liquids - B2  
Other Toxic Effects - D2A  
Other Toxic Effects - D2B



### Other hazards

**WHMIS** In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

### Other information

**NFPA**



Health = 2  
Fire = 3  
Reactivity = 0

See Section 12 for Ecological Information.

## \* Section 3. Composition/Information on Ingredients

### Substances

Material does not meet the criteria of a substance accord to United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS)  
Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008

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## Mixtures

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Hazardous Components					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Heptane	CAS: 142-82-5 EC Number: 205-563-8 UN: UN1206	14%	Inhalation-Rat LC50 103 g/m 4 Hours	UN GHS: Eye Irrit. 2, Skin Irriti. 2, STOT SE3, Aquatic Acute 3 EU DSD/DPD: Annex I: F; R11Xi, R38 N; R50-53 Xn1 R65 R67 EU CLP: Annex VI-Flam. Liq. 2; Asp. Tox 1; Skin Irrit. 2, STOT SE 3 ; Aquatic Acute 1; Aquatic Acute 1	NDA
Arien	CAS:64742-16-1 EINECS: 265-116-8	-10%	NDA	EU DSD/DPD: Data Lacking UN GHS: Data Lacking EU CLP: Data Lacking	NDA
Ethylene	CAS:74-85-1 EC Number: 200 815-3 UN: UN 1038 , UN1962	-4%	NDA	EU DSD/DPD: Annex I: F+; R12 R67 EU CLP: Annex VI Flam. Gas1, Press Gas, STOT SE 3 UN GHS: Eye Irrit. 2	NDA
Kaolin	CAS:1332-58-7	<3%	NDA	UN GHS: STOT RE 2 EU DSD/DPD: Self Classified - Xn; R48/20 EU CLP: Self Classified - STOT RE 2	NDA
Limestone	CAS: 1317-65-3 EC Number: 215-279-6	<3%	NDA	UN GHS: NDA EU DSD/DPD: NDA EU CLP: NDA	NDA
Propene	CAS: 115-7-1 EC Number: 204-062-1	<3%	NDA	UN GHS: Flam. Gas 1, Press, Gas EU DSD/DPD: Annex I - F+; R12 EU CLP: Annex VI - Flam. Gas 1, Press. Gas	NDA
Methane, 2,2'-bis (6-t-butyl-p-cresyl)-	CAS: 119-47-1 EC Number: 204-327-1	<0.1%	Ingestion/Oral-Rat LD50 4880 mg/kg	UN GHS: NDA EU DSD/DPD: NDA EU CLP: NDA	NDA
Carbon Black	CAS: 1333-86-4 EC Number: 215-609-9	<0.03%	Ingestion/Oral-Rat LD50 >15400 mg/kg Skin-Rabbit LD50 >3 g/kg	UN GHS: Flam. Gas 1, Press, Gas EU DSD/DPD: Annex I - F+; R12 EU CLP: Annex VI - Flam. Gas 1, Press. Gas	NDA

### \* Section 4. First-Aid Measures

- Inhalation** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, move person to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- Skin** Remove material from skin with waterless hand cleaners followed by washing with soap and water. If signs/symptoms develop, get medical attention.
- Eye** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If contact with material occurs flush eyes with water. If signs/symptoms develop, get medical attention.
- Ingestion** First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If signs/symptoms develop, get medical attention.

#### Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

#### Indication of any immediate medical attention and special treatment needed

##### Note to physician

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat victim symptomatically and supportively.

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## \* Section 5. Fire-Fighting Measures

### Extinguishing media

- **Suitable Extinguishing Media:** SMALL FIRES: Water spray, alcohol-resistant foam, dry chemical, (CO<sub>2</sub>)  
LARGE FIRES: Water spray, fog or alcohol-resistant foam.
- **Unsuitable Extinguishing Media:** Water may be ineffective, but should be used to keep fire exposed containers cool.

### Special hazards arising from the substance or mixture

- **Unusual Fire and Explosion Hazards:** HIGHLY FLAMMABLE: Will easily be ignited by heat, sparks, or flames. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapor explosion hazard indoors, outdoors, and in sewers or enclosed areas. Most vapors are heavier than air and may spread (flow) along the ground and collect in low or confined areas. Vapors may travel to an ignition source and flash back to source. Run-off may cause a fire or explosion in sewers.
- **Hazardous Combustion Products:** Carbon dioxide, carbon monoxide, aldehydes, acrid smoke and irritating fumes.

### Advice for firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Structural firefighters' protective clothing will only provide limited protection. It is not effective in spill situations where direct contact with the substance is possible. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Run-off from fire control may cause pollution. LARGE FIRES: Dike fire control water for later disposal.

## \* Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

- **Personal Precautions** Do not touch damaged container or spilled material unless wearing appropriate protective clothing. Stay upwind. Ventilate enclosed areas.
- **Emergency Procedures** No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

**Environmental precautions** Avoid run-off to waterways and sewers.

### Methods and material for containment and cleaning up

- **Containment/Clean-up Measures:** Stop and contain leak if you can do it without risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to proper containers. Use clean non-sparking tools to collect absorbed material. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors.

### Reference to other sections

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

## \* Section 7. Handling and Storage

### Precautions for safe handling

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• **Handling**

Keep away from heat, sparks, and flame. **DO NOT SMOKE.**  
 Keep containers closed.  
 Vapors of this material are heavier than air and will collect in low areas. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar actions near containers.  
 Static electricity may accumulate and create a fire or explosive hazard. Take precautionary measures against static charges.  
 Bond and ground all transfer containers and equipment.  
 Use only with adequate ventilation. Do not breathe (dust, vapor or spray mist). Ground all fixed equipment.

**Conditions for safe storage, including any incompatibilities**

• **Storage**

Store in a cool, dry well ventilated area.  
 Keep away from all sources of ignition.  
 Do Not Smoke. Keep away from incompatible materials.  
 Keep containers closed when not in use.

• **Specific end uses**

Refer to Section 1.2 - Relevant identified uses.

\* **Section 8. Exposure Controls/Personal Protection**

**Exposure Limits/Guidelines**

	Result	ACGIH	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick
Carbon Black (1333-86-4)	TWAs	3.5 mg/m3 TWA	3.5 mg/m3 TWA	Not established	3.5 mg/m3 TWA	3.5 mg/m3 TWA
	STELs				Not established	Not established
Kaolin (1332-58-7)	TWAs	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)	2 mg/m3 TWA (respirable)	Not established	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)
Limestone (1317-65-3)	TWAs	Not established	10 mg/m3 TWA	Not established	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)	2 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)
	STELs	Not established	Not established	20 mg/m3 STEL	Not established	10 mg/m3 TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)
Propene (115-07-1)	TWAs	500 ppm TWA	500 ppm TWA; 860 mg/m3 TWA	Not established	500 ppm TWA	Not established
Ethylene (74-85-1)	TWAs	200ppm TWA	200 ppm TWA; 229 mg/m3 TWA	Not established	200 ppm TWA	200 ppm TWA
Heptane (142-82-5)	STELs	500 ppm STEL	500 ppm STEL 2050 mg/m3 STEL	500 ppm STEL	500 ppm STEL	500 ppm STEL; 2050 mg/m3 STEL
	TWAs	400 ppm TWA	400 ppm TWA; 1640 mg/m3 TWA	Not established	400 ppm TWA	400 ppm TWA; 1640 mg/m3 TWA

**Exposure Limits/Guidelines Continued**

Result	Canada Northwest Territories	Canada Nova Scotia	Canada Ontario	Canada Quebec	Canada Saskatchewan
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Carbon Black (1333-86-4)	TWAs	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA	Not established	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA
	STELs				Not established	Not established
Kaolin (1332-58-7)	TWAs	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)	2 mg/m <sup>3</sup> TWA (respirable)	Not established	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)	2 g/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)
	STELs	Not established	10 mg/m <sup>3</sup> TWA	Not established	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)
Limestone (1317-65-3)	TWAs	Not established	10 mg/m <sup>3</sup> TWA	Not established	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)
	STELs	Not established	Not established	20 mg/m <sup>3</sup> STEL	Not established	10 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)
Propene (115-07-1)	TWAs	500 ppm TWA	500 ppm TWA; 860 mg/m <sup>3</sup> TWA	Not established	500 ppm TWA	Not established
Ethylene (74-85-1)	TWAs	200ppm TWA	200 ppm TWA; 229 mg/m <sup>3</sup> TWA	Not established	200 ppm TWA	200 ppm TWA
Heptane (142-82-5)	STELs	500 ppm STEL	500 ppm STEL 2050 mg/m <sup>3</sup> STEL	500 ppm STEL	500 ppm STEL	500 ppm STEL; 2050 mg/m <sup>3</sup> STEL
	TWAs	400 ppm TWA	400 ppm TWA; 1640 mg/m <sup>3</sup> TWA	Not established	400 ppm TWA	400 ppm TWA; 1640 mg/m <sup>3</sup> TWA

### Exposure Limits/Guidelines Continued

	Result	Canada Northwest Territories	Canada Nova Scotia	Canada Ontario	Canada Quebec	Canada Saskatchewan
Carbon Black (1333-86-4)	TWAs	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWA	3.5 mg/m <sup>3</sup> TWAEV	3.5 mg/m <sup>3</sup> TWAEV	3.5 mg/m <sup>3</sup> TWA
	STELs	7 mg/m <sup>3</sup> STEL	Not established	Not established	Not established	Not established
Kaolin (1332-58-7)	TWAs	5 mg/m <sup>3</sup> TWA (respirable mass); 10 mg/m <sup>3</sup> TWA (total mass)	2 mg/m <sup>3</sup> TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)	2 mg/m <sup>3</sup> TWAEV (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)	5mg/m <sup>3</sup> TWAEV (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)	4mg/m <sup>3</sup> (respirable fraction)
	STELs	Not established	Not established	Not established	10mg/m <sup>3</sup> TWAEV (particulate matter containing no asbestos and <1% crystalline silica, inspirable dust)	10 mg/m <sup>3</sup> TWA
Propene (115-07-1)	TWAs	Not established	500 PPM TWA	500 PPM TWAEV	Not established	Not established
Ethylene (74-85-1)	TWAs	Not established	200 ppm TWA	200 ppm TWAEV	Not established	200 ppm TWA
Heptane (142-82-5)	STELs	500 ppm STEL; 2049 mg/m <sup>3</sup> STEL	500 ppm STEL	500 ppm STEV; 2045 mg/m <sup>3</sup> STEV	500 ppm STEV; 2050 mg/m <sup>3</sup> STEV	Not established
	TWAs	400 ppm TWA; 1640 mg/m <sup>3</sup> TWA	400 ppm TWA	400 ppm TWAEV; 1635 mg/m <sup>3</sup> TWAEV	400 ppm TWAEV; 1640 mg/m <sup>3</sup> TWAEV	400 ppmTWA

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Propene (115-07-1)	TWAs	Not established	500 PPM TWA	500 PPM TWAEV	Not established	Not established
Ethylene (74-85-1)	TWAs	Not established	200 ppm TWA	200 ppm TWAEV	Not established	200 ppm TWA
Heptane (142-82-5)	STELs	500 ppm STEL; 2049 mg/m <sup>3</sup> STEL	500 ppm STEL	500 ppm STEV; 2045 mg/m <sup>3</sup> STEV	500 ppm STEV; 2050 mg/m <sup>3</sup> STEV	Not established
	TWAs	400 ppm TWA; 1640 mg/m <sup>3</sup> TWA	400 ppm TWA	400 ppm TWAEV; 1635 mg/m <sup>3</sup> TWAEV	400 ppm TWAEV; 1640 mg/m <sup>3</sup> TWAEV	400 ppm TWA

## Exposure Limits/Guidelines Continued

	Result	NIOSH	Result	OSHA
Carbon Black (1333-86-4)	TWAs	3.5 mg/m <sup>3</sup> TWA; 0.1 mg/m <sup>3</sup> TWA (carbon black in presence of polycyclic aromatic hydrocarbons, as PAH)	Carbon Black (1333-86-4)	TWAs 3.5 mg/m <sup>3</sup> TWA
Kaolin (1332-58-7)	TWAs	10 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable dust)	Heptane (142-82-5)	TWAs 500 ppm TWA; 2000 mg/m <sup>3</sup> TWA
Limestone (1317-65-3)	TWAs	10 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable dust)	Kaolin (1332-58-7)	TWAs 15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)
Propene (115-07-1)	TWAs	Not established	Limestone (1317-65-3)	TWAs 15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable fraction)
Heptane (142-82-5)	TWAs	85 ppm TWA; 350 mg/m <sup>3</sup> TWA		
	Ceilings	440 ppm Ceiling (15 min); 1800 mg/m <sup>3</sup> Ceiling (15 min)		
	MAKs	Not established		

### Exposure controls

- **Engineering Measures/Controls** Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.
- **Personal Protective Equipment**



Protective gloves

- **Respiratory** No respiratory protection is required under normal conditions of use.
- **Eye/Face** Under normal conditions of use, eye protection is not required.
- **Skin/Body** Wear appropriate gloves.

Follow best practice for site cleanup and disposal of waste.

### Environmental Exposure Controls

#### Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

Time-Weighted Averages are based on 8h/day, 40h/week TWA exposures

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## \* Section 9. Physical and Chemical Properties

### Information on Physical and Chemical Properties

<b>Material Description</b>			
Physical Form	Paste	Appearance/Description	Grey paste with mild odor
Color	Grey	Odor	Mild solvent odor
Odor Threshold	No data available	Aerosol Type	No data available
Taste	No available data	Particulate type	No data available
Particulate size	No available data	Physical and Chemical Properties	No data available
<b>General Properties</b>			
Boiling Point	200 F 93.3333 C	Melting Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	1.33 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	No data available	Explosive Properties	No data available
Oxidizing Properties	No data available	Density	No data available
<b>Volatility</b>			
Vapor Pressure	45 mmHg (torr)	Vapor Density	3.4 Air=1
Evaporation Rate	4.5 n-Butyl Acetate=1	VOC (Wt.)	No data available
VOC (Vol.)	No data available	Volatiles (Wt.)	No data available
Volatiles (Vol.)	25.5%		
<b>Flammability</b>			
Flash Point	14 F(-10 C) TCC (Tagliabue Closed Cup)	Self-Accelerating Decomposition Temperature (SADT)	No data available
LEL	1 %	Autoignition	Not relevant
Flammability (solid, gas)	No data available	UEL	7%
Flame Extension	No data available	Heat of Combustion	No data available
Flame Height	No data available	Burning Time	No data available
Flame Duration	No data available	Ignition Distance	No data available
<b>Environmental</b>			
Half Life	1 %	Octanol/Water partition coefficient	Not relevant
Coefficient of water/oil Distribution	No data available	Bioaccumulation Factor	No data available
Chemical Oxygen Demand	No data available	Biochemical Oxygen Demand BOD/BOD5	No data available
Degradation	No data available		
Bioconcentration Factor	No data available	Persistence	No data available

### Other Information

No additional physical and chemical parameters noted.

## \* Section 10. Stability and Reactivity

### Reactivity

- **Chemical stability**  
No dangerous reaction known under conditions of normal use.
- **Possibility of hazardous reactions**

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Stable under normal temperatures and pressures. Hazardous polymerization will not occur.

- **Conditions to avoid**

Avoid flames, sparks, and other sources of ignition. Keep away from excess heat and other incompatible materials.

- **Incompatible materials**

Acids, alkalies, strong oxidizers

- **Hazardous decomposition products**

Hazardous decomposition will not occur.

## \* Section 11. Toxicological Information

Component Name	CAS	Data
Heptane (14%)	142-82-5	Acute Toxicity: ihl-rat LC50: 103 gm/m3/4Hl ihl-rat TCLo: 400 ppm/6H/28D-I
Ethylene(<4%)	74-85-1	Acute Toxicity: ihl-rat TLCo: 1000ppm/2H
Kaolin (>3%)	1332-58-7	Acute Toxicity: ihl-rat TCLo: 300 mg/m3/12W-I Reproductive: orl-rat TCLo: 370 gm/kg (37 pre/1-22D preg)
Limestone (>3%)	1317-65-3	Acute Toxicity: ihl-rat TCLo: 84 gm/m3/4H/40W-I
Propene (>3%)	115-07-1	Acute Toxicity: ihl-rat GLCo: 5000 ppm/6H/2Y-I Mutagen: slt-rat-ihl 200 ppm/4W/6H Tumorigen/Carcinogen: ihl-rat TCLo: 154500 mg/kg/103W-C
Methane, 2,2"-bis(6-t-butyl-p-cresyl)- (<0.1%)	119-47-1	Acute Toxicity: orl-rat TDLo:420 mg/kg/14D-I Irritation: eye-rbt 100 mg/24H MOD Reproductive: orl-rat TDLo:2946.3 mg/kg (61D male)
Carbon Black (<0.03%)	1333-86-4	Acute Toxicity: orl-rat LD50:>15400 mg/kg; ihl-rat TCLo:50 mg/m3/6H/90D-I; skn-rbt LD50:>3gm/kg Tumorigen/Carcinogen: ihl-rat TCLo: 11600 ug/m3/13H/2Y-I
GHS Properties		Classification
Acute toxicity		EU/CLP • Data Lacking UN/GHS • Data Lacking
Aspiration Hazard		EU/CLP • Data Lacking UN GHS • Data Lacking
Carcinogenicity		EU/CLP • Classification criteria not met UN GSH • Classification criteria not met
Germ Cell Mutagenicity		EU/CLP • Data Lacking UN GHS • Data Lacking
Skin corrosion/Irritation		EU/CLP • Skin Irritation 2 UN GHS • Skin Irritation 2
Skin sensitization		EU/CLP • Data Lacking UN GHS • Data Lacking
STOT-RE		EU/CLP • Classification criteria not met UN GHS • Classification criteria not met
STOT-SE		EU/CLP • Classification criteria not met UN GHS • Classification criteria not met
Toxicity for Reproduction		EU/CLP • Data Lacking UN GHS • Data Lacking

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<b>Respiratory sensitization</b>	EU/CLP • Data Lacking UN GHS • Data Lacking
<b>Serious eye damage/Irritation</b>	EU/CLP • Classification criteria not met UN GHS • Eye Irritation 2

- **Target Organs** Central Nervous System (CNS)
- **Routes of entry/exposure** Inhalation, Skin, Eye, Ingestion

## Potential Health Effects

### Inhalation

- **Acute (Immediate)** May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death. May cause respiratory irritation.
- **Chronic (Delayed)** Under normal conditions of use, no health effects are expected.

### Skin

- **Acute (Immediate)** Causes skin irritation. May cause an allergic skin reaction.
- **Chronic (Delayed)** Repeated or prolonged skin contact may cause dermatitis, and drying of the skin.

### Eye

- **Acute (Immediate)** Causes serious eye irritation.
- **Chronic (Delayed)** No data available.

### Ingestion

- **Acute (Immediate)** Under normal conditions of use, no health effects are expected.
- **Chronic (Delayed)** No data available.

- **Carcinogenic Effects**

Although this material does contain several components that are either carcinogens or potential carcinogens the material as a whole is not classified as a carcinogen according to regulatory guidelines. The carbon black is encapsulated within the matrix of this material and no exposure is expected. The isoprene and formaldehyde components are both in this material at low enough concentrations that this material is not classified as a carcinogen per agency guidelines.

## Carcinogenic Effects

	CAS	IARC
<b>Carbon Black</b>	1333-86-4	Group 2B-Possible Carcinogen

### Key to abbreviations

LC = Lethal Concentration  
LD = Lethal Dose  
MLD = Mild  
MOD = Moderate  
SEV = Severe  
TC = Toxic Concentration  
TD = Toxic Dose

## \* Section 12. Ecological Information

### Toxicity

Water Cut-Off Mastic					
Dosage	Species	Duration	Results	Exposure Conditions	Comments
= 50 mg/L	Water Flea: <i>Daphnia Magna</i>	48 Hour(s)	EC50	NDA	Heptane

### Persistence and degradability

No further material data available.

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- **Bioaccumulative potential:**  
Material data lacking.
- **Mobility in soil:**  
No further relevant information available.

### Additional ecological information

- **General notes:** At present there are no ecotoxicological assessments.

### Results of PBT and vPvB assessment

No PBT and vPvB assessment has been conducted by the manufacturer.

### Other adverse effects

No further relevant information available.

## \* Section 13. Disposal Considerations

### Waste treatment methods

- **Product waste handling**
- **Recommendation:** Dispose of waste product and/or container according to local, regional, state, and national/international regulations.
- **Packaging waste handling**
- **Recommendation:** Dispose of packaging or container according to local, regional, state, and national/international regulations.

## \* Section 14. Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN 1133	Not Regulated	NDA	NDA	NDA
TDG	UN 1133	Not Regulated	NDA	NDA	NDA
IMO/IMDG	UN 1133	Not Regulated	NDA	NDA	NDA
IATA/ICAO	UN 1133	Not Regulated	NDA	NDA	NDA

- **Special precautions for user**  
None known.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
Not Relevant.

## \* Section 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture.

State Right To Know				
Component	CAS	MA	NJ	PA
Polybutene	9003-29-6	No	No	No
Heptane	142-82-5	Yes	Yes	Yes
Arien	64742-16-1	No	No	No
Kaolin	1332-58-7	Yes	Yes	Yes
Limestone	1317-65-3	Yes	Yes	Yes
Ethylene	74-85-1	Yes	Yes	Yes

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<b>State Right To Know</b>						
<b>Component</b>	<b>CAS</b>	<b>MA</b>	<b>NJ</b>	<b>PA</b>		
<i>Propene</i>	115-11-7	Yes	Yes	Yes		
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	16219-75-3	No	No	No		
<i>Carbon Black</i>	1333-86-4	Yes	Yes	Yes		
<b>Inventory</b>						
<b>Component</b>	<b>CAS</b>	<b>Canada DSL</b>	<b>Canada NDSL</b>	<b>TSCA</b>	<b>EU EINECS</b>	<b>EU ELNICS</b>
<i>Polybutene</i>	9003-29-6	Yes	No	Yes	No	Yes
<i>Heptane</i>	142-82-5	Yes	No	Yes	Yes	No
<i>Arien</i>	64742-16-1	Yes	No	Yes	Yes	No
<i>Kaolin</i>	1332-58-7	Yes	No	Yes	Yes	No
<i>Limestone</i>	1317-65-3	No	Yes	Yes	Yes	No
<i>Ethylene</i>	74-85-1	No	No	Yes	Yes	No
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	16219-75-3	Yes	No	Yes	Yes	Yes
<i>Propene</i>	115-7-1	Yes	No	Yes	Yes	No
<i>Cabon Black</i>	1333-86-4	Yes	No	Yes	Yes	Yes

## Labor

### Canada - WHMIS - Classifications of Substances

• <i>Polybutene</i>	9003-29-6	<35%	Uncontrolled product according to WHMIS classification criteria
• <i>Heptane</i>	142-82-5	14%	D2, D2B
• <i>Arien</i>	64742-16-1	<10%	Not Listed
• <i>Kaolin</i>	1332-58-7	>3%	D2A (In certain cases, this classification does not apply For more information, consult the Substance Specific issues.
• <i>Limestone</i>	1317-65-3	<3%	D2A
• <i>Ethylene</i>	74-85-1	<4%	A,B1,D2B
• <i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	119-47-1	<0.1%	Not Listed
• <i>Propene</i>	115-7-1	<3%	A, B1, ID2B
• <i>Cabon Black</i>	1333-86-4	<0.03%	Carbon Black is non-respirable on Health Canada's WHMIS website.

## Labor

### Canada - WHMIS - Ingredient Disclosure List

<i>Polybutene</i>	9003-29-6	<35%	Not Listed
<i>Heptane</i>	142-82-5	14%	1%
<i>Arien</i>	64742-16-1	<10%	Not Listed
<i>Kaolin</i>	1332-58-7	>3%	Not Listed
<i>Limestone</i>	1317-65-3	>3%	Not Listed
<i>Ethylene</i>	74-85-1	>4%	Not Listed
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	16219-75-3	>0.1%	1%
<i>Propene</i>	115-7-1	<3%	Not Listed
<i>Cabon Black</i>	1333-86-4	<0.03%	1%

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## Environment

### Canada - CEPA - Priority Substance List

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## UNITED STATES

### Labor

#### U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

#### U.S. - OSHA - Specifically Regulated Chemicals

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## Environment

### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>

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<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## ***U.S. - CERCLA/SARAH - Hazardous Substances and their Reprutable Quantities***

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## ***U.S. - CERCLA/SARAH - Radionuclides and their Reportable Quantities***

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## ***U.S. - CERCLA/SARAH - Section 302 Extremely Hazardous Substances EPCRA RQs***

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## ***U.S. - CERCLA/SARAH - Section 302 Extremely Hazardous Substances TPQs***

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>

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<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## U.S. - CERCLA/SARAH - Section 313 - Emission Reporting

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## U.S. - CERCLA/SARAH - Section 313 - PBT Chemical Listing

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## United States - California Environment

### U.S. - California - Proposition 65 - Carcinogens List

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Carcinogen, intial date 2/21/03 (airborne, unbound particles of respirable size)</i>

### U.S. - California - Proposition 65 - Developmental Toxicity

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>

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<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## *U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)*

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## *U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)*

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## *U.S. - California - Proposition 65 - Reproductive Toxicity - Female*

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## *U.S. - California - Proposition 65 - Reproductive Toxicity - Female*

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>

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<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## *U.S. - California - Proposition 65 - Reproductive Toxicity - Female*

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## *U.S. - California - Proposition 65 - Reproductive Toxicity - Male*

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

## *United States - Pennsylvania*

### *Labor*

#### *U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List*

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
<i>Heptane</i>	<i>142-82-5</i>	<i>14%</i>	<i>Not Listed</i>
<i>Arien</i>	<i>64742-16-1</i>	<i>&lt;10%</i>	<i>Not Listed</i>
<i>Kaolin</i>	<i>1332-58-7</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Limestone</i>	<i>1317-65-3</i>	<i>&gt;3%</i>	<i>Not Listed</i>
<i>Ethylene</i>	<i>74-85-1</i>	<i>&gt;4%</i>	<i>Not Listed</i>
<i>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</i>	<i>16219-75-3</i>	<i>&gt;0.1%</i>	<i>Not Listed</i>
<i>Propene</i>	<i>115-7-1</i>	<i>&lt;3%</i>	<i>Not Listed</i>
<i>Carbon Black</i>	<i>1333-86-4</i>	<i>&lt;0.03%</i>	<i>Not Listed</i>

#### *U.S. - Pennsylvania - RTK (Right to Know) - Special Hazard Substances*

<i>Polybutene</i>	<i>9003-29-6</i>	<i>&lt;35%</i>	<i>Not Listed</i>
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<b>Heptane</b>	<b>142-82-5</b>	14%	Not Listed
<b>Arien</b>	<b>64742-16-1</b>	<10%	Not Listed
<b>Kaolin</b>	<b>1332-58-7</b>	>3%	Not Listed
<b>Limestone</b>	<b>1317-65-3</b>	>3%	Not Listed
<b>Ethylene</b>	<b>74-85-1</b>	>4%	Not Listed
<b>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</b>	<b>16219-75-3</b>	>0.1%	Not Listed
<b>Propene</b>	<b>115-7-1</b>	<3%	Not Listed
<b>Carbon Black</b>	<b>1333-86-4</b>	<0.03%	Not Listed

## United States - Rhode Island

### Labor

#### U.S. - Rhode Island - Hazardous Substance List

<b>Polybutene</b>	<b>9003-29-6</b>	<35%	Not Listed
<b>Heptane</b>	<b>142-82-5</b>	14%	Toxic; Flammable
<b>Arien</b>	<b>64742-16-1</b>	<10%	Not Listed
<b>Kaolin</b>	<b>1332-58-7</b>	>3%	Toxic
<b>Limestone</b>	<b>1317-65-3</b>	>3%	Toxic
<b>Ethylene</b>	<b>74-85-1</b>	>4%	Toxic; Flammable
<b>Methane, 2,2'-bis(6-t-buytl-p-cresyl)-</b>	<b>16219-75-3</b>	>0.1%	Not Listed
<b>Propene</b>	<b>115-7-1</b>	<3%	Toxic; Flammable
<b>Carbon Black</b>	<b>1333-86-4</b>	<0.03%	Toxic

## Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

## \* Section 16. Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation/ last revision** 03/21/2007

### Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organization  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)

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LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

End of SDS

## \* Section 1. Identification

### Product identifier

- **Trade name:** RPI Royal Edge Pourable Sealer A
- **Product Code:** PSA
- **Relevant identified uses of the substance or mixture:** Construction

### Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**  
Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078
- **Information department:** Technical Services Department

### Emergency telephone number

**ChemTrec:** UNITED STATES 1(800)424-9300 INTERNATIONAL 703-527-3887

## \* Section 2. Hazard(s) identification

### Classification of the substance or mixture

The product is not classified according to the Globally Harmonized System (GHS).

### Label elements

**GHS label elements:** Void

**Hazard pictograms:** Void

**Signal Word:** Void

**Hazard statements:** Void

### Classification system

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	1	Fire = 1
PHYSICAL HAZARD	0	Physical Hazard = 0

### Other hazards

May result in irritation to skin and eyes. May result in respiratory irritation.

Ingestion: May result in gastric disturbances.

- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## \* Section 3 Composition/information on ingredients

- **Chemical characterization:** Substances
- **CAS No. Description:** Trade Secret

(Contd. on page 2)

**Tradename: RPI Royal Edge Pourable Sealer A**

*(Contd. of page 1)*

**Identification number(s): NA Chemical characterization: Mixtures Discription:**  
Polyol mixture with additives

<b>Components</b>	<b>CAS Number</b>		
Polybutadiene	69102-90-5		50 - 100%
Limestone	1317-65-3		25-50%
Polyol			2.5-10%
Amorphous Silica	112945-52-5		≤2.5%
Quartz (SiO2)	14808-60-7		<0.5%

**\* Section 4. First-aid measures**

**Description of first aid measures**

- **General information:**  
Symptoms of poisoning may occur after several hours; therefore medical observation for at least 48 hours after the accident is recommended.
- **After inhalation:**  
Remove victim to area off fresh air and seek medical attention. Supply fresh air. If required, provide artificial respiration. If breathing is difficult, give oxygen. Call a doctor immediately.
- **Afterskin contact:**  
Remove contaminated clothing and immediately wash affected area with soap and water. Rinse affected area with clean water for 15 minutes. Wash clothing before reuse.
- **Aftereye contact:**  
Rinse opened eye for several minutes under clean running water. If eye is irritated, Contact a physician.
- **After swallowing:**  
Call a poison center or physician. Remove any dentures. Wash out mouth with clean water. Drink 1 - 2 glasses of water but do not induce vomiting. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If vomiting occurs the head should be kept low to prevent vomit from entering lungs.  
If unconscious, place in recovery position and get immediate medical attention. Do not give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing to provide unrestricted breathing.

**Information for Physician**

- **Indication of any immediate medical attention and special treatment needed**  
No further relevent information available.
- **Specific treatments:**  
Treat symptomatically and supportively.
- **Protection of first aiders**  
No further relevent information available.

**\* Section 5. Fire-fighting measures**

**Extinguishing media**

- **Suitable extinguishing agents:** CO2, extinguishing powder or water spray. Use water spray to fight large fires.
- **Special hazards arising from the substance or mixture:** No further relevent information available.

**Advice for firefighters**

- Wear protective clothing and a respiratory device.
- **Additional information**  
Cool endangered receptacles with water spray.

*(Contd. on page 3)*

**Tradename: RPI Royal Edge Pourable Sealer A**

*(Contd. of page 2)*

**\* Section 6. Accidental release measures**

**Personal precautions, equipment and emergency procedures**

*Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.*

**• Environmental precautions:**

*Inform respective authorities in case of seepage into water course or sewage system.*

*Prevent seepage into sewage system, workpits and cellars.*

*Do not allow to enter sewers/surface or ground water.*

**• Methods and material for containment and cleaning up:**

*Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust).*

*Dispose of contaminated material as waste in accordance with local, state, and federal regulations.*

*Ensure adequate ventilation.*

**Reference to other sections**

*Wash contaminated area with soap and water to prevent slips.*

*See Section 7 for information on safe handling.*

*See Section 8 for information on personal protection equipment.*

*See Section 13 for disposal information.*

**\* Section 7. Handling and storage**

**Handling**

**• Precautions for safe handling:**

*Ensure good ventilation/exhaustion at the workplace.*

*Wear personal protective equipment.*

*Open and handle receptacle with care.*

*Avoid contact with eyes.*

*Avoid repeated or prolonged contact with skin.*

*Prevent the formation of aerosols.*

**Information about protection against explosions and fires**

*No special measures required.*

**Conditions for safe storage, including any incompatibilities**

**Storage**

**• Requirements to be met by storerooms and receptacles:** *Store in a cool location away from direct heat.*

**• Information about storage in one common storage facility:** *Store away from oxidizing agents.*

**• Further information about storage conditions:** *Keep receptacle tightly sealed.*

**• Specific end use(s):** *No further relevant information available.*

**Advice on general occupational hygiene**

*Do not eat, drink, or smoke in areas where this product is being handled, stored, or processed.*

*Workers should wash face and hands before eating, drinking or smoking.*

*Remove protective clothing and equipment before entering eating areas.*

**\* Section 8. Exposure controls/personal protection**

**Additional information about design of technical systems:**

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

Name of Ingredients	CAS Number	Exposure Limits
Quartz (SiO <sub>2</sub> ) ( ≤0.5%)	14808-60-7	PEL REL TLV <i>See Quartz listing</i> <i>0.05* mg/m<sup>3</sup></i> <i>*respirable dust; See Pocket Guide App.A</i> <i>0.025*mg/m<sup>3</sup></i> <i>*as respirable fraction</i>

*(Contd. on page 4)*

**Tradename: RPI Royal Edge Pourable Sealer A**

*(Contd. of page 3)*

*Additional information: The lists that were valid during the creation of product were used as basis.*

**Exposure controls**

**Personal protective equipment (see listings below)**

- **General protection and hygiene**

*Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.*

*Avoid contact with the eyes and skin.*

*Store protective clothing separately.*

- **Breathing equipment:** *Not required.*

- **Protection of hands:**



Protective gloves

*The glove material has to be impermeable and resistant to the product/ the substance and the preparation. Check with glove manufacturer for data regarding chemical resistance.*

**Material of gloves:**

*Nitrile rubber, NBR*

*Butyl rubber, BR*

*Chloroprene rubber, CR*

*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.*

- **Penetration time of glove material:**

*The exact break through time is established by the manufacturer and must be observed.*

- **Eye protection:**

*Safety glasses with side shields*

**Body protection:**

*Protective work clothing.*

**\* Section 9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

- **Appearance:**

**Form:** *Liquid*

**Color:** *White*

**Odor:** *Characteristic*

**Odor Threshold:** *Not determined*

**pH-value:** *Not determined*

**Change in condition**

- **Melting point/Melting Range** *Undetermined.*

- **Boiling point/Boiling Range** *Undetermined*

- **Flash point:** *>196° C (>385° F)*

- **Ignition Temperature:**

- **Auto igniting:** *Product is not self igniting.*

- **Danger of explosion:** *Product does not present an explosion hazard.*

- **Flammable limits:**

**Lower:** *Not determined*

**Upper:** *Not determined.*

**Tradename: RPI Royal Edge Pourable Sealer A** (Contd. of page 4)

• <b>Specific gravity at 20° C (68° F)</b>	1.25 g/cm <sup>3</sup> (10.431 lbs/gal)
• <b>Relative density:</b>	Not determined.
• <b>Vapor density:</b>	Not determined.
• <b>Evaporation rate:</b>	Not determined.
• <b>Partition coefficient</b>	
<b>(n-octanol/water: gravity:</b>	Not determined.
<b>(n-octanol/water: gravity:</b>	Not determined.
• <b>Solubility in / Miscibility with Water:</b>	Insoluble.
<b>Viscosity</b>	
• <b>Dynamic:</b>	Not determined
• <b>Kinematic:</b>	Not determined
• <b>Organic solvents:</b>	0.0%
• <b>VOC (Per EPA 24)content:</b>	Not available GMS/L
• <b>Solids content:</b>	100.0%
<b>Other information</b>	No further relevent information available.

<b>* Section 10. Stability and reactivity</b>	
<b>Reactivity</b>	
<b>Chemical stability</b>	
• <b>Thermal decomposition/conditions to be avoided:</b>	
• <b>No decomposition if used according to specifications.</b>	
• <b>Possibility of hazardous reactions:</b>	No dangerous reactions known.
• <b>Conditions to avoid:</b>	Exposure to high temperatures, open flames, and sparks. Do not pressurize, cut, weld, braze, drill, or grind on containers.
• <b>Incompatible materials:</b>	Reacts with oxidizing agents.
• <b>Hazardous Decomposition products:</b>	Carbon monoxide and carbon dioxide. Hydrocarbons

<b>* Section 11. Toxicological information</b>	
<b>Information on toxicological effects</b>	
<b>Acute toxicity</b>	
• <b>LD/LC50 values that are relevant for classification</b>	
<b>101-68-8 4,4'-methylenediphenyl diisocyanate</b>	
Oral	LD50 2200 mg/kg (rat)
<b>26761-40-0 di-isodecyl" phthalate</b>	
	LD50 >7426 mg/kg (guinea pig)
Oral	LD50 64000 mg/kg (rat) 32000 ppm (rat)
<b>Primary irritant effect</b>	
• <b>on the skin:</b> Irritant to skin and mucous membranes.	
• <b>on the eye:</b> Irritating effect	



**Tradename: RPI Royal Edge Pourable Sealer A**

*(Contd. of page 5)*

**Sensitization**

*Inhalation-Sensitization possible through inhalation.  
Skin Contact- Sensitization possible through skin contact.*

**Additional toxicological information**

*This product is not subject to classification according to the internally approved methods for preparations.  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us.*

**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	1
100-40-3	4- vinylcyclohexene	2B
<b>NTP (National Toxicology Program)</b>		
14808-60-7	Quartz (SiO <sub>2</sub> )	K

**Section 12. Ecological information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information is available
- **Persistence and degradability:** No further information is available.

**Behavior in environmental systems**

- **Bioaccumulative potential:** No further relevant information is available.
- **Mobility in soil:** No further relevant information is available.

**Additional ecological information**

- **General notes:** At present there are no ecotoxicological assessments.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**Other adverse effects**

*No further relevant information available.*

**\* Section 13. Disposal considerations**

**Wastetreatment methods**

- **Recommendation:**  
*Must be specially treated adhering to official regulations.*

**Uncleanpackagings:**

- **Recommendation:**  
*Disposal must be made according to official regulations.*

**\* Section 14. Transportation information**

**UN-Number**

- **DOT, ADR, ADN, IMDG, IATA**                      Void

**UN proper shipping name**

- **DOT, ADR, ADN, IMDG, IATA**                      Void

**Transport hazard class(es)**

- **DOT, ADR, ADN, IMDG, IATA**

**Tradename: RPI Royal Edge Pourable Sealer A** (Contd. of page 6)

• <b>Class</b>	Void
<b>Packing group</b> DOT, ADR, ADN, IMDG, IATA	Void
• <b>Environmental hazards:</b>	Not applicable
• <b>Special precautions for user:</b>	Not applicable
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable
<b>Transport/Additional information:</b>	Export Controlled: This product and Technical Data Sheets are export controlled Export is strictly prohibited unless authorized the the United States Government.
<b>UN "Model Regulation":</b>	Not Applicable

**\* Section 15. Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture.**

• **Sara**

• **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

• **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

• **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

**Proposition 65**

• **Chemicals known to cause cancer:**

100-40-3	4-vinylcyclohexene
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• **Chemicals known to cause reproductive toxicity:**

100-40-3	4-vinylcyclohexene
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**(DSL) Canada Domestic Substance List**

All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.

**Carcinogenicity categories**

• **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

• **TLV (Threshold Limit Value established by ACGIH)**

14808-60-7	Quartz (SiO <sub>2</sub> )	A2
100-40-3	4-vinylcyclohexene	A3

(Contd. on page 8)

**Tradename: RPI Royal Edge Pourable Sealer A** (Contd. of page 7)

<ul style="list-style-type: none"> <li><b>MAK (German Maximum Workplace Concentration)</b></li> </ul>		
14808-60-7	Quartz (SiO <sub>2</sub> )	1
100-40-3	4-vinylcyclohexene	2
<ul style="list-style-type: none"> <li><b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b></li> </ul>		
14808-60-7	Quartz (SiO <sub>2</sub> )	
<ul style="list-style-type: none"> <li><b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b></li> </ul>		
None of the ingredients is listed.		

**National regulations**

- Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**\* Section 16. Other information**

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- Department issuing SDS: Technical Services Department**
- Creation Date:** 03/28/2003
- Date of preparation/ last revision** 02/27/2014 / 4
- Abbreviations and acronyms:**  
*RID: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulation Concerning the International Transport of Dangerous Goods by Rail)*  
*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*  
*ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)*  
*ICAO: International Civil Aviation Organization*  
*IMDG: International Maritime Code for Dangerous Goods*  
*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*  
*DOT: US Department of Transportation*  
*ACGIH: American Conference of Governmental Industrial Hygienists*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*NFPA: National Fire Protection Association (USA)*  
*HMIS: Hazardous Materials Identification System (USA)*

End of SDS

## \* Section 1. Identification

### Product identifier

- **Trade name:** RPI Royal Edge Pourable Sealer B
- **Product Code:** PSB
- **Relevant identified uses of the substance or mixture:** Construction

### Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**  
Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078
- **Information department:** Technical Services Department

### Emergency telephone number

**ChemTrec:** UNITED STATES 1(800)424-9300 INTERNATIONAL 703-527-3887

## \* Section 2. Hazard(s) identification

### Classification of the substance or mixture



GHS08 Health hazard



GHS02 Flame

- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H361 Suspected of damaging the fertility or unborn child. ighly flammable liquid and vapor.



GHS07

- H332 Harmful if inhaled. Suspected of damaging fertility or the unborn
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H355 May cause respiratory irritation..

### Label elements

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07



GHS08

**Signal word: Danger**

### Hazard statements

- Harmful if inhaled
- Causes skin irritation

**Tradename: RPI Royal Edge Pourable Sealer B**

*(Contd. of page 1)*

*Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child.  
May cause drowsiness or dizziness.  
May cause damage to organs through a single exposure. May be fatal if swallowed and enters airways.*

**Precautionary statements**

*If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use. Wear protective gloves and eye safety glasses.  
Keep away from heat/sparks/open flames. Do not smoke when handling or using material. Do not use in areas without proper ventilation. While using product, keep container tightly closed.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF IN EYES: Rinse cautiously with clean water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.  
Store in secure area.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Classification system**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**\* Section 3 Composition/information on ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Mixture  
*Dangerous and Non-dangerous components*

<b>Components</b>	<b>CAS Number</b>	<b>% by Weight</b>
<i>diphenylmethanediisocyanate, isomeres and hohlogues</i>	9016-87-9	25 -50 %
<i>4,4'-methylenediphenyl diisocyanate</i>	101-68-8	25-50%
<i>di-"isodecyl" phthalate</i>	26761-40-0	5-20%
<i>o-(p-isocyanatobenzyl)phenyl isocyanate</i>	5873-54-1	2.5-10 %
<i>carbon black</i>	1333-86-4	≤2.5%

**\* Section 4. First-aid measures**

**Description of first aid measures**

- **General information:**  
*Symptoms of poisoning may occur after several hours; therefore medical observation for at least 48 hours after the accident is recommended.*

*(Contd. on page 3)*

**Tradename: RPI Royal Edge Pourable Sealer B**

(Contd. of page 2)

- **After inhalation:**  
Remove victim to area off fresh air and seek medical attention. Supply fresh air. If required, provide artificial respiration. If breathing is difficult, give oxygen. Call a doctor immediately.
- **Afterskin contact:**  
Remove contaminated clothing and immediately wash affected area with soap and water. Rinse affected area with clean water for 15 minutes. Wash clothing before reuse.
- **After eye contact:**  
Rinse opened eye for several minutes under clean running water. Contact a physician immediately.
- **After swallowing:**  
Seek medical treatment immediately. Call a poison center or physician. Remove any dentures. Wash out mouth with clean water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed, product can enter lungs and cause damage. Do Not Induce Vomiting. If vomiting occurs the head should be kept low to prevent vomit from entering lungs. If unconscious, place in recovery position and get immediate medical attention. Do not give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing to provide unrestricted breathing.

**Most important symptoms and effects, both acute and delayed**

- **Eye Contact:**  
Causes serious eye injury.
- **Inhalation:**  
Harmful if inhaled. Can cause central nervous system depression. May cause drowsiness and dizziness.
- **Skin Contact:**  
Causes skin irritation.
- **Ingestion:**  
Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat, and stomach.

**Over-exposure signs and symptoms**

- **Eye Contact:**  
**Adverse symptoms may include the following:** Pain or irritation. Redness and watering of the eyes.
- **Inhalation:**  
**Adverse symptoms may include the following.** Nausea or vomiting, headache with drowsiness or fatigue. Dizziness with disorientation and vertigo. Unconsciousness.
- **Skin Contact:**  
**Adverse symptoms include the following.** Irritation and redness.
- **Ingestion:**  
**Adverse symptoms may include the following.** Nausea and/or vomiting.

**Indication of any immediate medical attention and special treatment needed**

- **Information for Physician:**  
No further relevant information available.
- **Specific treatments:**  
Treat symptomatically and supportively.
- **Protection of first aiders:**  
No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth to mouth resuscitation.

\* **Section 5. Fire-fighting measures**

**Extinguishing media**

- **Suitable extinguishing agents:** CO<sub>2</sub>, extinguishing powder or water spray. Use water spray to fight large fires.
- **Special hazards arising from the substance or mixture:** No further relevant information available.

**Advice for firefighters**

- Wear protective clothing and a respiratory device.

(Contd. on page 4)

Tradename: RPI Royal Edge Pourable Sealer B

(Contd. of page 3)

## \* Section 5. Fire-fighting measures

### **Extinguishing media**

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water and water with full jet

### **Advice for firefighters**

- **Protective equipment:**  
Mouth respiratory protective device.  
Protective clothing and respiratory protective device.

## \* Section 6. Accidental release measures

### **Personal precautions, equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Prevent seepage into sewage system, workpits and cellars.  
Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**  
Cover spilled material with neutralization solution (see below) and mix. Wait 15 minutes. Collect material in openhead metal containers and repeat neutralization and cleaning process until surface is decontaminated. Apply drum lid but DO NOT secure. Allow container to vent for 72 hours to let carbon dioxide escape. Ensure adequate ventilation.

### **Reference to other sections**

Neutralization solutions:

1. A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia, and 2% liquid detergent.
2. A mixture of 80% water, 20% non-ionic surfacant.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## \* Section 7. Handling and storage

### **Handling**

- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Wear personal protective equipment.  
Open and handle receptacle with care.  
Avoid contact with eyes.  
Avoid repeated or prolonged contact with skin.  
Do not breath vapors or spray mist.
- **Information about protection against explosions and fires:**  
Product reacts with water. Reaction may produce heat and/or gases. Container may rupture from gas generation of a fire situation. The reaction may be violent.  
Protect against electrostatic charges.  
Keep respiratory protective device available

### **Advice on general occupational hygiene**

Do not eat, drink, or smoke in areas where this product is being handled, stored, or processed.

Workers should wash face and hands before eating, drinking or smoking.

Remove protective clothing and equipment before entering eating areas.

### **Conditions for safe storage, including any incompatibilities**

#### **Storage**

Requirments to be met by storerooms and receptacles.

(Contd. on page5)



**Tradename: RPI Royal Edge Pourable Sealer B** (Contd. of page 4)

Store in a cool location away from direct heat.  
Keep containers tightly closed when not in use. Protect from atmospheric

- **Information about storage in one common storage facility:**  
Store away from oxidizing agents.
- **Further information about storage conditions:**  
Uncontaminated containers, free of moisture, may be resealed only after placing under a nitrogen blanket.  
DO NOT store in containers made of copper, copper alloys or galvanized surfaces.  
Store between 10°C (50°F) and 32°C (90°F).
- **Specific end use(s):**  
As a filler for pitch-pan(pockets) on single-ply membrane roof systems.

**\* Section 8. Exposure controls/personal protection**

**Control parameters**

Components with limit values that require monitoring at the workplace:			
Name of Ingredients	CAS Number		Exposure Limits
4,4'-methylenediphenyl diisocyanate (25-50%)	101-68-8	PEL	Short-term value: C 0.2 mg/m <sup>3</sup> , C 0.02 ppm
		REL	Short-term value: C 0.2* mg/m <sup>3</sup> , C 0.02* ppm
		TLV	Long-term value: 0.05 mg/m <sup>3</sup> , 0.005 ppm *10-min 0.051 mg/m <sup>3</sup> , 0.005 ppm

*Additional information: The lists that were valid during the creation of product were used as basis.*

**Exposure controls**

**Personal protective equipment (see listings below)**

- **General protection and hygiene**  
Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Store protective clothing separately.
- **Breathing equipment:**  
Use approved NIOSH-certified respiratory protection equipment when airborne exposure is excessive and above the established exposure limit. Comply with OSHA 29 CFR 1910.134.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance and the preparation. Check with glove manufacturer for data regarding chemical resistance.

Material of gloves:

Nitrile rubber, NBR

Butyl rubber, BR

Chloroprene rubber, CR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.

- **Penetration time of glove material:**  
The exact break through time is established by the manufacturer and must be observed.

- **Eye protection:**



Safety glasses

Safety glasses with side shields should be worn. If splashes are likely to occur, wear goggles or a full face mask. Do not wear contact lenses. Eye wash stations and safety showers should be close to workstation.

**Tradename: RPI Royal Edge Pourable Sealer B** (Contd. of page 5)

- **Skin and body protection:**  
Wear solvent resistant apron and boots. Material should be antistatic and flame resistant.

**\* Section 9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

- **Appearance:**
  - Form:** Liquid
  - Color:** Black
  - Odor:** Characteristic
  - Odor Threshold:** Not determined
  - pH-value:** Not applicable

**Change in condition**

- **Melting point/Melting Range** Undetermined.
- **Boiling point/Boiling Range** 190°C (374°F)
- **Flash point:** 111° C (232° F)
- **Ignition temperature:** 400° C (752° F)
- **Auto igniting:** Product is not self igniting.
- **Danger of explosion:** Product does not present an explosion hazard.

- **Flammable limits:**
  - Lower:** 0.4 Vol %
  - Upper:** Not determined.

- **Vapor pressure:** Not applicable.
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.

- **Partition coefficient**
  - (n-octanol/water: gravity):** Not determined.
  - (n-octanol/water: gravity):** Not determined.

- **Solubility in / Miscibility with Water:** Insoluble.

**Viscosity**

- **Dynamic:** Not determined
- **Kinematic:** Not determined
- **Organic solvents:** 0.0%
- **VOC (Per EPA 24)content:** Not available GMSL

- **Solids content:** 100.0%
- Other information** No further relevent information available.

**\* Section 10. Stability and reactivity**

- **Reactivity:**  
Not expected to be explosive, self-reactive or self-heating under normal conditions.

**Chemical stability**

(Contd. on page 7)

**Tradename: RPI Royal Edge Pourable Sealer B**

*(Contd. of page 6)*

**\* Section 10. Stability and reactivity**

- **Thermal decomposition/conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**  
MDI reacts slowly with water to form Carbon Dioxide gas. Reaction with water at high temperatures may be more severe. Avoid contact with bases, alcohols and amines.
- **Conditions to avoid:**  
Exposure to high temperatures, open flames, and sparks.  
Do not pressurize, cut, weld, braze, drill, or grind on containers.  
Moisture
- **Incompatible materials:**  
Reacts with acids, alkalis, amines, ammonia, oxidizing agents, polyols.  
Reacts with water forming carbon dioxide. May rupture sealed containers if contaminated with water.
- **Hazardous decomposition products:**  
NCarbon monoxide and carbon dioxide.  
Nitrogen oxides  
Isocyanate  
Hydrocarbons

**\* Section 11. Toxicological information**

**Information on toxicological effects**

**Acute toxicity**

• <b>LD/LC50 values that are relevant for classification</b>			
<b>101-68-8 4,4'-methylenediphenyl diisocyanate</b>			
Oral	LD50	2200 mg/kg (rat)	
<b>26761-40-0 di-isodecyl" phthalate</b>		LD50	>7426 mg/kg (guinea pig)
Oral	LD50	64000 mg/kg (rat)	32000 ppm (rat)

**Primary irritant effect**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect

**Sensitization**

Inhalation-Sensitization possible through inhalation.  
Skin Contact- Sensitization possible through skin contact.

**Additional toxicological information**

This product shows the following dangers according to internally approved calculation methods for preparation:

Harmful  
Irritant

**Carcinogenic categories**

<b>IARC (International Agency for Research on Cancer)</b>		
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	3
101-68-8	4,4'-methylenediphenyl diisocyanate	3
1333-86-4	Carbon black	2B
<b>NTP (National Toxicology Program)</b>		
None of the ingredients is listed		

*(Contd. on page 8)*

**Tradename: RPI Royal Edge Pourable Sealer B**

*(Contd. of page 7)*

**Section 12. Ecological information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information is available
- **Persistence and degradability:** No further information is available.

**Behavior in environmental systems**

- **Bioaccumulative potential:** No further relevant information is available.
- **Mobility in soil:** No further relevant information is available.

**Additional ecological information**

- **General notes:** At present there are no ecotoxicological assessments.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**Other adverse effects**

None

**\* Section 13. Disposal considerations**

**Wastetreatment methods**

- **Recommendation:**  
The generation of waste should be avoided or minimized whenever and wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental and waste disposal legislation and all local, regional, and federal authority requirements. Dispose of surplus and non-recyclable products thru a licensed waste disposal contractor. Waste should not be allowed to enter streams, lakes, sewer systems, or other open waterways. Waste packaging should be recycled. This material and its containers that have not been cleaned or rinsed out may contain product residues or vapors that are highly flammable and may explode. Do not cut, weld, or grind used containers. Do not dispose with household garbage. Any contaminated cleaning materials used with this product must be properly disposed and treated as flammable materials unless they have been thoroughly washed and clean of any product or residue. Do not allow product to reach sewage system.

**Uncleaned packagings**

- **Recommendation:** Disposal must be made in compliance with local, state, regional, and federal regulations.

**\* Section 14. Transportation information**

**UN-Number**

- **DOT, ADR, ADN, IMDG, IATA**                      *Void*

**UN proper shipping name**

- **DOT, ADR, ADN, IMDG, IATA**                      *Void*

**Transport hazard class(es)**

- **DOT, ADR, ADN, IMDG, IATA**
- **Class**    *Void*

**Packing group**

**DOT, ADR, ADN, IMDG, IATA**                      *Void*

- **Environmental hazards:**                                      *Not applicable*

- **Special precautions for user:**                              *Not applicable*

*(Contd. on page 9)*

**Tradename: RPI Royal Edge Pourable Sealer B** (Contd. of page 8)

<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable
<b>UN proper shipping name</b>	
• DOT, ADR, ADN, IMDG, IATA	Void
<b>UN "Model Regulation":</b>	Not Applicable

<b>* Section 15. Regulatory information</b>		
<b>Safety, health and environmental regulations/legislation specific for the substance or mixture.</b>		
• <b>Sara</b>		
• <b>Section 355 (extremely hazardous substances):</b>		
None of the ingredients is listed.		
• <b>Section 313 (Specific toxic chemical listings):</b>		
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	
101-68-8	4,4'-methylenediphenyl diisocyanate	
• <b>TSCA (Toxic Substances Control Act):</b>		
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.		
<b>Proposition 65</b>		
• <b>Chemicals known to cause cancer:</b>		
None of the ingredients listed.		
• <b>Chemicals known to cause reproductive toxicity:</b>		
None of the ingredients is listed.		
<b>(DSL) Canada Domestic Substance List</b>		
All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.		
<b>Carcinogeny categories</b>		
• <b>EPA (Environmental Protection Agency)</b>		
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	CBD
101-68-8	4,4'-methylenediphenyl diisocyanate	CBD
• <b>TLV (Threshold Limit Value established by ACGIH)</b>		
1333-86-4	carbon black	A4
• <b>MAK (German Maximum Workplace Concentration)</b>		
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	4
101-68-8	4,4'-methylenediphenyl diisocyanate	4
1333-86-4	carbon black	3B
• <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>		
1333-86-4	carbon black	
• <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>		
None of the ingredients is listed.		

**Tradename: RPI Royal Edge Pourable Sealer B**

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**National regulations**

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

\* **Section 16. Other information**

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing SDS: Technical Services Department**
- **Creation Date:** 03/28/2003
- **Date of preparation/ last revision** 02/27/2014 / 4
- **Abbreviations and acronyms:**

*RID: Reglement international concernant le transport des marchandises dangereuses par chemin de fer (Regulation Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*IMDG: International Maritime Code for Dangerous Goods*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*DOT: US Department of Transportation*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*End of SDS*

## \* Section 1. Identification

**Product identifier:** Solvent

- **Trade name:** RPI Membrane Cleaner
- **Articlenumber:** 114
- **Relevant identified uses of the substance or mixture:** Construction

### Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**

Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078

- **Information department:** Technical Services Department

### Emergency telephone number

**ChemTrec:** UNITED STATES 1(800)424-9300 INTERNATIONAL 703-527-3887

## \* Section 2. Hazard(s) identification

### Classification of the substance or mixture



GHS02 Flame

- *Flam. Liq. 2 H225 Highly flammable liquid and vapor.*



GHS08 Health hazard

- *Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.*

### Label elements

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

### Hazard pictograms



GHS02



GHS08

**Signal word: Danger**

### Hazard statements

- Highly flammable liquid and vapor.*
- Causes skin irritation.*
- Causes serious eye irritation.*
- Suspected of damaging fertility or the unborn child.*
- May cause drowsiness or dizziness.*
- May cause damage to organs through a single exposure. May be fatal if swallowed and enters airways.*

### Precautionary statements

- If medical advice is needed, have product container or label at hand.*
- Keep out of reach of children.*
- Read label before use. Wear protective gloves and eye safety glasses.*
- Keep away from heat/sparks/open flames. Do not smoke when handling or using material. Do not use in areas without proper ventilation. While using product, keep container tightly closed.*

(Contd. on page 2)



**Tradename: RPI Membrane Cleaner**

(Contd. of page 1)

*IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.*  
*IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*  
*IF IN EYES: Rinse cautiously with clean water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.*  
 Store in secure area.  
 Store in a well ventilated, cool area. Store in tightly sealed original containers.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.  
 In case of fire use for extinction: CO<sub>2</sub>, powder or water spray.

**Classification system**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



**Other hazards**

**Results of PBT and vPvB assessment:**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**\* Section 3. Composition/information on ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Solvent.

Dangerous components	CAS Number	
Solvent naphtha (petroleum), light aliph. (VM&P)	64742-89-8	50 -100 %

**\* Section 4. First-aid measures**

**Description of first aid measures**

- **After inhalation:**  
 Remove victim to area off fresh air and seek medical attention. Supply fresh air. If required, provide artificial respiration. If breathing is difficult, give oxygen. Consult doctor if symptoms persist.  
 Call a doctor immediately.
- **After skin contact:**  
 Remove contaminated clothing and immediately wash affected area with soap and water. Rinse affected area with clean water for 15 minutes. Wash clothing before reuse. Contact a physician.
- **After eye contact:**  
 Rinse opened eye for several minutes under clean running water. Contact a physician.
- **After swallowing:**  
 Seek medical treatment immediately. Call a poison center or physician. Remove any dentures. Wash out mouth with clean water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed, product can enter lungs and cause damage. Do Not Induce Vomiting. If vomiting occurs the head should be kept low to prevent vomit from entering lungs.  
 If unconscious, place in recovery position and get immediate medical attention. Do not give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing to provide unrestricted breathing.

(Contd. on page 3)

Tradename: RPI Membrane Cleaner

(Contd. of page 2)

**Most important symptoms and effects, both acute and delayed**

- **Eye Contact:**  
Causes serious eye injury.
- **Inhalation:**  
Harmful if inhaled. Can cause central nervous system depression. May cause drowsiness and dizziness.
- **Skin Contact:**  
Causes skin irritation.
- **Ingestion:**  
Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.  
Irritating to mouth, throat, and stomach.

**Over-exposure signs and symptoms**

- **Eye Contact**
- **Adverse symptoms may include the following:**  
Pain or irritation. Redness and watering of the eyes.
- **Inhalation**
- **Adverse symptoms may include the following:**  
Nausea or vomiting, headache with drowsiness or fatigue.
- **Skin Contact**
- **Adverse symptoms include the following:**  
Irritation and redness.
- **Ingestion**
- **Adverse symptoms may include the following:**  
Nausea and/or vomiting.

**Indication of any immediate medical attention and special treatment needed****Information for Physician**

If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

- **Specific treatments:**  
Treat symptomatically and supportively.
- **Protection of first aiders:**  
No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth to mouth resuscitation.

\* **Section 5. Fire-fighting measures****Extinguishing media**

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**  
Water and water with full jet

**Advice for firefighters**

- **Protective equipment:**  
Mouth respiratory protective device.  
Protective clothing and respiratory protective device.

\* **Section 6. Accidental release measures****Personal precautions, equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

(Contd. on page 4)

Tradename: RPI Membrane Cleaner

(Contd. of page 3)

- **Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Prevent seepage into sewage system, workpits and cellars.

Do not allow product to reach sewage system or any water course.

Do not allow to enter sewers/surface or ground water.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste in accordance with federal state and local regulations.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

\* **Section 7. Handling and storage**

- **Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Wear personal protective equipment.

Open and handle receptacle with care.

Do not use air pressure to unload containers.

Keep container tightly closed.

Do not breath vapors or spray mist.

- **Information about protection against explosions and fires:**

Use explosion proof equipment. Keep away from ignition sources. Do not smoke. Bond and ground containers.

Although bonded and grounded, static electricity may accumulate. Use only non-sparking tools.

Protect against electrostatic charges.

Keep respiratory protective device available

**Advice on general occupational hygiene**

Do not eat, drink, or smoke in areas where this product is being handled, stored, or processed.

Workers should wash face and hands before eating, drinking or smoking.

Remove protective clothing and equipment before entering eating areas.

**Conditions for safe storage, including any incompatibilities**

Store in a segregated, approved area in accordance with local regulations.

Store in secured area away from imcompatable materials and food and drink.

Eliminate all ignition sources. Separate from oxidizing materials.

Material must be stored in original containers tightly closed and sealed.

Store containers upright to prevent spillage.

Do not store in unlabeled containers.

\* **Section 8. Exposure controls/personal protection**

**Additional information about design of technical systems**

No further data; see item 7.

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

This product does not contain any relevant quantities of materials with critical values that have to be montored at the workplace.

**Additional information:**

The lists that were valid during the creation were used as basis.

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# Safety Data Sheet

acc. to OSHA HCS

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Article Number 114

Revision Number 3

Revision Date 02/27/2014

Tradename: RPI Membrane Cleaner

(Contd. of page 4)

## Exposure controls

### Personal protective equipment (see listings below)

#### General protection and hygiene

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Store protective clothing separately.

- **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance and the preparation. Check with glove manufacturer for data regarding chemical resistance.

### Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.

- **Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Safety glasses

Safety glasses with side shields should be worn. If splashes are likely to occur, wear goggles or a full face mask. Do not wear contact lenses. Eye wash stations and safety showers should be close to workstation.

- **Skin and body protection:**

Wear solvent resistant apron and boots. Material should be antistatic and flame resistant.

## \* Section 9. Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

##### Appearance

- **Form:** Liquid
- **Color:** Colorless
- **Odor:** Sweet, pungent to hydrocarbon solvent
- **Odor Threshold:** Not Determined
- **pH-value:** Not Available

#### Change in condition

- **Melting point/Melting Range** Undetermined
- **Boiling point/Boiling Range** 128°C (262°F)
- **Flash point:** 10°C (50°F)
- **Specific gravity:** .75
- **Auto igniting:** Not determined
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

#### Explosion limits

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## Information on basic physical and chemical properties

### Explosion limits

**Lower:** .6 Vol %  
**Upper:** 12.8 Vol %

- **Vapor density:** Not determined
- **Evaporation rate:** Not determined
- **Partition coefficient (n-octanol/water: gravity):** Not determined
- **(n-octanol/water: gravity):** Not determined

- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

### Viscosity

- **Dynamic:** Not determined
- **Kinematic:** Not determined
- **Organic solvents:** 100%
- **VOC content:** 6.20 LBS/GAL

**Other information** Weight per gallon: 6.24 LBS.

## \* Section 10. Stability and reactivity

### Reactivity

#### Chemical stability

- **Thermal decomposition/conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**  
No dangerous reactions known.
- **Conditions to avoid:**  
Heat, open flames, and sparks.  
Keep away from direct sunlight.  
Do not allow vapor to accumulate in low or confined areas  
Do not pressurize, cut, weld, braze, drill, or grind on containers.  
Situations conducive to the build up of static electricity.
- **Incompatible materials:**  
Acids, alkalis, and oxidizing agents.
- **Hazardous decomposition products:**  
CARBON MONOXIDE, CARBON DIOXIDE, HYDROCARBON, AND OTHER ACRID PRODUCTS OF COMBUSTION.

## \* Section 11. Toxicological information

### Information on toxicological effects

- **Acute toxicity**
- **Primary irritant effect**
- **on the skin:**  
May irritate the eye.
- **on the eye:**  
May irritate the eye.
- **Sensitization:**  
No sensitizing effects known.

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Tradename: RPI Membrane Cleaner

(Contd. of page 6)

**Additional toxicological information:  
Carcinogenic categories**

**IARC (International Agency for Reserarch on Cancer)**

None of the ingredients is listed.

**NTP (National Toxicology Program)**

None of the ingredients is listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

\* **Section 12. Ecological information**

**Toxicity**

- **Aquatic toxicity:**  
No further relevent information available.
- **Persistence and degradability:**  
No further relevent information available.
- **Bioaccumulative potential:**  
No further relevent information available.
- **Mobility in soil:**  
No further relevent information available.
- **Additional ecological information:**
- **General notes:**  
At present there are no ecotoxicological assessments.

**Results of PBT and vPvB assessment**

- **PBT:**  
Not applicable.
- **vPvB:**  
Not applicable.

**Other adverse effects**

No further relevant informatio available.

\* **Section 13. Disposal considerations**

**Waste treatment methods**

- **Recommendation:**  
The generation of waste should be avoided or minimized whenever and wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental and waste disposal legislation and all local, regional, and federal authority requirements. Dispose of surplus and non-recyclable products thru a licensed waste disposal contractor. Waste should not be allowed to enter streams, lakes, sewer systems, or other open waterways. Waste packaging should be recycled. This material and its containers that have not been cleaned or rinsed out may contain product residues or vapors that are highly flammable and may explode. Do not cut, weld, or grind used containers. Do not dispose with household garbage. Any contaminated cleaning materials used with this product must be properly disposed and treated as flammable materials unless they have been thoroughly washed and clean of any product or residue. Do not allow product to reach sewage system.

**Uncleaned packagings**

- **Recommendation:** Disposal must be made in compliance with local, state, regional, and federal regulations.

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Tradename: RPI Membrane Cleaner

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## \* Section 14. Transportation information

### UN-Number

- DOT, ADR, IMDG, IATA UN1993

### UN proper shipping name

- DOT Flammable liquids, n.o.s. (Solvent naphtha (petroleum), light aliph. (VM&P)
- ADR 1993 Flammable liquids, n.o.s. (Solvent naphtha (petroleum), light aliph. (VM&P)
- IMDG, IATA FLAMMABLE LIQUID, N.O.S. (Solvent naphtha (petroleum), light aliph. (VM&P)

### Transport hazard class(es)

- DOT



- Class 3 Flammable liquids.
- Label 3

### ADR, IMDG, IATA



- Class 3 Flammable liquids.
- Label 3

### Packing group

- DOT, ADR, IMDG, IATA II

Environmental hazards: Not applicable

Special precautions for user Warning: Flammable Liquids

Danger code (Kemler): 33

EMS number: F-E, S-E

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

UN "Model Regulation" UN1993, Flammable liquids, n.o.s. (Solvent naphtha (petroleum), light aliph. (VM&P), 3,II

## \* Section 15. Regulatory Information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

- Sara

- Section 355 (extremely hazardous substances):

None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

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• **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

**Proposition 65**

• **Chemicals known to cause cancer:**

Warning: This product contains a chemical(s) known to the state of California to cause cancer.

64742-89-8 | Solvent naphtha (petroleum), light aliph. (VM&P)

• **Chemicals known to cause reproductive toxicity:**

Warning: This product contains a chemical(s) known to the state of California to cause birth defects or other reproductive harm.

64742-89-8 | Solvent naphtha (petroleum), light aliph. (VM&P)

**(DSL) Canada Domestic Substance List**

All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.

**Carcinogenicity categories**

• **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

• **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

• **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

• **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**National regulations:**

**Water hazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

\* **Section 16. Other information**

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

• **Department issuing SDS: Technical Services Department**

• **Creation Date:** 03/28/2003

• **Date of preparation/ last revision:** 11/18/2014 / 2

• **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

DOT: US Department of Transportation

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

IMDG: International Maritime Code for Dangerous Goods

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

End of SDS

Article number 115

Revision Number 5

Revision Date 02/27/2014

\* **Section 1. Identification**

**Product identifier:** Adhesive

- **Trade name:** Royal Edge Splice Adhesive (Black)
- **Product Code:** RRBK1G, RRBK5G
- **Relevant identified uses of the substance or mixture:** Construction

**Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier**

Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078

- **Information department:** Technical Services Department.

**Emergency telephone number**

ChemTrec: UNITED STATES 1(800)424-9300 INTERNATIONAL 703-527-3887

\* **Section 2. Hazard(s) identification**

**Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

**Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS07



GHS08

**Signal word:** Danger

**Hazard statements**

Highly flammable liquid and vapor.

Causes skin irritation

(Contd. on page 2)

**Trade name: Royal Edge Splice Adhesive (Black)**

*(Contd. of page 1)*

*Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child.  
May cause drowsiness or dizziness.  
May cause damage to organs through prolonged or repeated exposure.  
May be fatal if swallowed and enters airways.*

**• Precautionary statements**

*If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Keep away from heat/sparks/open flames. Do not smoke when handling or using material. Do not use in areas without proper ventilation.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Store in secure area.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Classification system**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



**Other hazards**

- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**\* Section 3. Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

<b>Dangerous components</b>		
toluene	108-88-3	50-100%
n-hexane	110-54-3	5-20%
xylene	1330-20-7	2.5-10%
Polyisocyanate		≤ 2.5%

**\* Section 4. First-aid measures**

**Description of first aid measures**

- **General information:**  
*Symptoms of poisoning may occur after several hours; therefore medical observation for at least 48 hours after the accident is recommended.*

*(Contd. on page 3)*

**Trade name: Royal Edge Splice Adhesive (Black)**

(Contd. of page 2)

- **After inhalation:**  
Remove victim to area off fresh air and seek medical attention. Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.  
Call a doctor immediately.
- **After skin contact:**  
Clean with rubbing alcohol, followed immediately by washing affected area with soap and water. Remove contaminated clothing. Wash clothing before reuse.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Seek medical treatment.

**Information for doctor**

- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

\* **Section 5. Fire-fighting measures**

**Extinguishing media**

- **Suitable extinguishing agents:** CO2, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water and water with full jet

**Advice for firefighters**

- **Protective equipment:**  
Mouth respiratory protective device.  
Protective clothing and respiratory protective device.

\* **Section 6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Prevent seepage into sewage system, workpits and cellars.  
Do not allow product to reach sewage system or any water course.  
Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste in accordance with federal state and local regulations.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

**Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

\* **Section 7. Handling and storage**

**Handling**

- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:**  
Keep away from ignitions sources-Do Not Smoke.

(Contd. on page 4)

**Trade name: Royal Edge Splice Adhesive (Black)**

*(Contd. of page 3)*

*Protect against electrostatic charges.  
Keep respiratory protective device available*

**Conditions for safe storage, including any incompatibilities**  
**Storage**

- **Requirements to be met by storerooms and receptacles:**  
*Store in a cool location away from direct heat.*
- **Information about storage in one common storage facility:**  
*Store as flammable liquid.*
- **Further information about storage conditions:**  
*Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.*

**Specific end use(s)**

*No further relevant information available.*

**\* Section 8. Exposure controls/personal protection**

**Additional information about design of technical systems**

*No further data; see item 7.*

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

**108-88-3 toluene (50-100%)**

PEL	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
TLV	Long-term value: 75 mg/m <sup>3</sup> , 20 ppm BEI

**110-54-3 n-hexane (5-20%)**

PEL	Long-term value: 1800 mg/m <sup>3</sup> , 500 ppm
REL	Long-term value: 180 mg/m <sup>3</sup> , 50 ppm
TLV	Long-term value: 176 mg/m <sup>3</sup> , 50 ppm Skin; BEI

**1330-20-7 xylene (2.5-10%)**

PEL	Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
REL	Long-term value: 655 mg/m <sup>3</sup> , 150 ppm
TLV	Short-term value: 651 mg/m <sup>3</sup> , 150 ppm Long-term value: 434 mg/m <sup>3</sup> , 100 ppm BEI

**Ingredients with biological limit values**

**108-88-3 toluene (50-100%)**

BEI	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene
	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene

**Trade name: Royal Edge Splice Adhesive (Black)**

*(Contd. of page 4)*

	0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)
<b>110-54-3 n-hexane (5-20%)</b>	
BEI	0.4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2.5-Hexanedione without hydrolysis
<b>1330-20-7 xylene (2.5-10%)</b>	
BEI	1.50 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids

- **Additional information:** Lists that were valid during the creation were used as basis.

**Exposure controls**

**Personal protective equipment (see listings below)**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Store protective clothing separately.

- **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.



Protective gloves

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**

Safety glasses with side shields.

- **Body protection:** Protective work clothing

\* **Section 9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

- **Appearance:**
- **Form:** Liquid
- **Color:** Black

*(Contd. on page 6)*

**Trade name: Royal Edge Splice Adhesive (Black)**

*(Contd. of page 5)*

• <b>Odor:</b>	Characteristic
<b>Change in condition</b>	
• <b>Melting point:</b>	Undetermined.
• <b>Boiling point:</b>	103 °C (217 °F)
• <b>Flash point:</b>	-17° C (1° F)
• <b>Ignition temperature:</b>	240.0° C (464° F)
• <b>Auto igniting:</b>	Product is not selfigniting.
• <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
• <b>Flammable limits:</b>	
• <b>Lower:</b>	1.2 Vol %
• <b>Upper:</b>	7.4 Vol %
• <b>Vapor pressure at 20 °C (68 °F):</b>	160.0 hPa (120 mm Hg)
• <b>Specific gravity:</b>	0.88
• <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
• <b>Solvent content:</b>	
• <b>Organic solvents:</b>	71%
• <b>Solids content:</b>	29 %
<b>Other information</b>	VOC: 614 gm/l or 5.13 LBS/GAL WEIGHT PER GALLON: = 7.3 LBS/GAL

\* **Section 10. Stability and reactivity**

**Reactivity**

**Chemical stability**

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**  
Strong oxidizers, acids and bases.
- **Conditions to avoid:**  
No further relevant information available.
- **Incompatible materials:**  
No further relevant information available.
- **Hazardous decomposition products:**  
Oxides of carbons and nitrogen with trace amounts of cyanides under burning conditions.

\* **Section 11. Toxicological information**

**Information on toxicological effects**

- **Acute toxicity:**

**LD/LC50 values that are relevant for classification**

**108-88-3 toluene**

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

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**Trade name: Royal Edge Splice Adhesive (Black)**

*(Contd. of page 6)*

**Primary irritant effect**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitizing effect through inhalation is possible with prolonged exposure.

**Additional toxicological information**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

108-88-3	toluene	3
1330-20-7	xylene	3

**NTP (National Toxicology Program)**

None of the ingredients is listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

\* **Section 12. Ecological information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

**Behavior in environmental systems**

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

**Ecotoxicological effects**

- **Remark:** Toxic for fish

**Additional ecological information**

- **General notes:**  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground. Toxic for aquatic organisms  
Water hazard class 3 (self-assessment) : extremely hazardous for water.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

\* **Section 13. Disposal considerations**

**Waste treatment methods**

- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

\* **Section 14. Transport information**

**UN-Number**

**Trade name: Royal Edge Splice Adhesive (Black)**

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• **DOT, ADR, IMDG, IATA** UN1133

**UN proper shipping name**

• **DOT, IMDG, IATA** ADHESIVES  
• **ADR** 1133 ADHESIVES

**Transport hazard class(es)**

• **DOT**



• **Class** 3 Flammable liquids.  
• **Label** 3

**Packing group**

• **DOT** II

**Environmental hazards**

• **Marine pollutant:**

• **Special precautions for user** Warning: Flammable Liquid

• **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

• **UN "Model Regulation":** UN1133, Adhesives, 3, II

**\* Section 15. Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

• **Sara**

**Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

**Section 313 (Specific toxic chemical listings)**

108-88-3 toluene

110-54-3 n-hexanene

1330-20-7 xylene

**TSCA (Toxic Substances Control Act)**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

**Proposition 65**

**Chemicals known to cause cancer**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity**

108-88-3 toluene

• **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL (Canada Domestic Substance List) or are exempt from DSL requirements.

**Cancerogenity categories**

**EPA (Environmental Protection Agency)**

108-88-3	toluene	II
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110-54-3	n-hexane	II
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(Contd. on page 9)

**Trade name: Royal Edge Splice Adhesive (Black)**

*(Contd. of page 8)*

1330-20-7 xylene		I
<b>TLV (Threshold Limit Value established by ACGIH)</b>		
108-88-3	toluene	A4
1330-20-7	xylene	A4

**MAK (German Maximum Workplace Concentration)**

*None of the ingredients is listed.*

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

*None of the ingredients is listed.*

**National regulations**

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**\* Section 16. Other information**

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

**Department issuing SDS: Technical Services Department**

- **Creation Date:** 03/28/2003
- **Date of preparation / last revision** 02/27/2014 / 4
- **Abbreviations and acronyms:**  
*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*  
*DOT: US Department of Transportation*  
*ACGIH: American Conference of Governmental Industrial Hygienists*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*NFPA: National Fire Protection Association (USA)*  
*HMIS: Hazardous Materials Identification System (USA)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*Flam. Liq. 2: Flammable liquids, Hazard Category 2*  
*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*  
*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*  
*Repr. 2: Reproductive toxicity, Hazard Category 2*  
*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*  
*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*  
*Asp. Tox. 1: Aspiration hazard, Hazard Category 1*

*End of SDS*

\* **Section 1. Identification**

**Product identifier:** Adhesive

- **Trade name:** Royal Edge Splice Adhesive (Clear)
- **Product Code:** RRCLIG
- **Relevant identified uses of the substance or mixture:** Construction

**Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier**

Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078

- **Information department:** Technical Services Department.

**Emergency telephone number**

ChemTrec: UNITED STATES 1(800)424-9300 INTERNATIONAL 703-527-3887

\* **Section 2. Hazard(s) identification**

**Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

**Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS07



GHS08

**Signal word:** Danger

**Hazard statements**

Highly flammable liquid and vapor.

Causes skin irritation

**Trade name: Royal Edge Splice Adhesive (Clear)**

*(Contd. of page 1)*

*Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child.  
May cause drowsiness or dizziness.  
May cause damage to organs through prolonged or repeated exposure.  
May be fatal if swallowed and enters airways.*

**Precautionary statements**

*If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Keep away from heat/sparks/open flames. Do not smoke when handling or using material. Do not use in areas without proper ventilation.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Store in secure area.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Classification system**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



**Other hazards**

- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

\* **Section 3. Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

<b>Dangerous components</b>		
<i>toluene</i>	<i>108-88-3</i>	<i>25-50%</i>
<i>n-hexane</i>	<i>110-54-3</i>	<i>5-20%</i>
<i>xylene</i>	<i>1330-20-7</i>	<i>2.5-10%</i>
<i>ethylbenzene</i>	<i>100-41-4</i>	<i>≤ 1.0%</i>
<i>zinc oxide</i>	<i>1314-13-2</i>	<i>≤ 0.5%</i>

\* **Section 4. First-aid measures**

**Description of first aid measures**

- **General information:**  
*Symptoms of poisoning may occur after several hours; therefore medical observation for at least 48 hours after the accident is recommended.*

*(Contd. on page 3)*

**Trade name: Royal Edge Splice Adhesive (Clear)**

(Contd. of page 2)

- **After inhalation:**  
Remove victim to area off fresh air and seek medical attention. Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.  
Call a doctor immediately.
- **After skin contact:**  
Clean with rubbing alcohol, followed immediately by washing affected area with soap and water. Remove contaminated clothing. Wash clothing before reuse.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Rinse mouth with water. Drink 1-2 glasses of water but **DO NOT** induce vomiting. Do not give liquieds to a drowsy, convulsing or unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Seek medical treatment.

**Information for doctor**

- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

\* **Section 5. Fire-fighting measures**

**Extinguishing media**

- **Suitable extinguishing agents:** CO2, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water and water with full jet

**Advice for firefighters**

- **Protective equipment:**  
Mouth respiratory protective device.  
Protective clothing and respiratory protective device.

\* **Section 6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Prevent seepage into sewage system, workpits and cellars.  
Do not allow product to reach sewage system or any water course.  
Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste in accordance with federal state and local regulations.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

**Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

\* **Section 7. Handling and storage**

**Handling**

- **Precautions for safe handling:**  
Avoid prolonged and repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling and prevent formation of aerosols. Avoid breathing headspace vapors.

(Contd. on page 4)

**Trade name: Royal Edge Splice Adhesive (Clear)**

(Contd. of page 3)

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Protect against electrostatic charges.

Keep respiratory protective device available

**Information about protection against explosions and fires**

Keep away from sparks, static electricity and other sources of ignition.

Do not open container in enclosed areas. A build up of fumes may be explosive. All areas must be properly ventilated.

Keep containers tightly closed when not in use.

**Conditions for safe storage, including any incompatibilities**

**Storage**

- **Requirements to be met by storerooms and receptacles:**  
Store in a cool location away from direct heat.
- **Information about storage in one common storage facility:**  
Store as flammable liquid.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.

**Specific end use(s)**

No further relevant information available.

**\* Section 8. Exposure controls/personal protection**

**Additional information about design of technical systems**

No further data; see item 7.

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

**108-88-3 toluene (25-50%)**

PEL	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
TLV	Long-term value: 75 mg/m <sup>3</sup> , 20 ppm BEI

**110-54-3 n-hexane (5-20%)**

PEL	Long-term value: 1800 mg/m <sup>3</sup> , 500 ppm
REL	Long-term value: 180 mg/m <sup>3</sup> , 50 ppm
TLV	Long-term value: 176 mg/m <sup>3</sup> , 50 ppm Skin; BEI

**1330-20-7 xylene (2.5-10%)**

PEL	Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
REL	Short-term value: 655 mg/m <sup>3</sup> , 150 ppm Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
TLV	Short-term value: 651 mg/m <sup>3</sup> , 150 ppm Long-term value: 434mg/m <sup>3</sup> , 100 ppm BEI

**100-41-4 ethylbenzene (< 1.0%)**

PEL	Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
REL	Short-term value: 545 mg/m <sup>3</sup> , 125 ppm Long-term value: 435 mg/m <sup>3</sup> , 100 ppm



**Trade name: Royal Edge Splice Adhesive (Clear)**

*(Contd. of page 4)*

TLV	Short-term value: 543 mg/m <sup>3</sup> , 125 ppm Long term value: 87 mg/m <sup>3</sup> , 20 ppm BEI
<b>1314-13-2 zinc oxide ( ≤ 0.5%)</b>	
PEL	Long-term value: 15*5** mg <sup>3</sup> , * total dust ** respirable fraction and fume
REL	Short-term value: 10** mg/m <sup>3</sup> Long-term value: 5*5** mg/m <sup>3</sup> Ceiling limit value: 15* mg/m <sup>3</sup> * dust only **fume
TLV	Short-term value: 10** mg/m <sup>3</sup> Long-term value: 2* mg/m <sup>3</sup> *as respirable fraction
<b>Ingredients with biological limit values</b>	
<b>108-88-3 toluene (25-50%)</b>	
BEI	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene  0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene  0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)
<b>110-54-3 n-hexane (5-20%)</b>	
BEI	0.4 mg/L Medium: urine Time: end of shift at end of workweek Parameter: 2,5-Hexanedione without hydrolysis
<b>1330-20-7 xylene (2.5-10%)</b>	
BEI	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
<b>100-41-4 ethylbenzene ( ≤ 1.0%)</b>	
BEI	0.7 g/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: Sum of mandelic acid and phenylglyoxilic acid (nonspecific, semi-quantitative)  Medium: end-exhaled air Time: not critical Parameter: Ethyl benzene (semi-quantitative)

- **Additional information:** Lists that were valid during the creation were used as basis.

**Exposure controls**

**Personal protective equipment (see listings below)**

**Trade name: Royal Edge Splice Adhesive (Clear)**

*(Contd. of page 5)*

**• General protective and hygienic measures:**

*Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Store protective clothing separately.*

**• Breathing equipment:**

*Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.*

**Protection of hands**

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation*

**• Material of gloves**

*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.*



*Protective gloves*

**• Penetration time of glove material**

*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

**Eye protection**

*Safety glasses with side shields.*



*Tightly sealed goggles*

**Body protection**

*Protective work clothing*

**\* Section 9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

- **Appearance:**
- **Form:** Liquid
- **Color:** Amber
- **Odor:** Characteristic

**Change in condition**

- **Melting point:** Undetermined.
- **Boiling point:** 69 °C (156 °F)
- **Flash point:** -26° C (-15° F)
- **Ignition temperature:** 240.0° C (464° F)
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**Flammable limits**

- **Lower:** 1.2 Vol %
- **Upper:** 7.4 Vol %

*(Contd. on page 7)*

**Trade name: Royal Edge Splice Adhesive (Clear)**

(Contd. of page 6)

• **Vapor pressure at 20 °C (68 °F):** 160.0 hPa (120 mm Hg)

• **Specific gravity:** 0.876

• **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

• **Solvent content Organic solvents:** 71%

**Solids content:** 29 %

**Other information** VOC: NOT EXCEED 628 gm/l or 5.24 LBS/GAL  
WEIGHT PER GALLON: = 7.307 LBS/GAL

\* **Section 10. Stability and reactivity**

**Reactivity**

**Chemical stability**

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**  
Strong oxidizers, acids and bases.
- **Conditions to avoid:**  
Heat, open flames, sparks, hot surfaces, and ignition sources.
- **Incompatible materials:**  
Reacts with oxidizing agents.
- **Hazardous decomposition products:**  
Carbon monoxide, carbon dioxide, and hydrocarbons.

\* **Section 11. Toxicological information**

**Information on toxicological effects**

- **Acute toxicity:**

**LD/LC50 values that are relevant for classification**

**108-88-3 toluene**

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

**Primary irritant effect**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect. Vapors may be irritating to the eyes.
- **Sensitization:** Sensitizing effect through inhalation is possible with prolonged exposure.

**Additional toxicological information**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

108-88-3	toluene	3
1330-20-7	xylene	3

(Contd. on page 8)

**Trade name: Royal Edge Splice Adhesive (Clear)**

(Contd. of page 7)

**NTP (National Toxicology Program)**

None of the ingredients is listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**\* Section 12. Ecological information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

**Behavior in environmental systems**

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

**Ecotoxicological effects**

- **Remark:** Harmful to fish

**Additional ecological information**

- **General notes:**  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground. Toxic for aquatic organisms  
Water hazard class 3 (self-assessment) : extremely hazardous for water.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

**\* Section 13. Disposal considerations**

**Waste treatment methods**

- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

**\* Section 14. Transport information**

**UN-Number**

- **DOT** UN1133

**UN proper shipping name**

- **DOT** Adhesives, Flammable

**Transport hazard class(es)**

- **DOT**



- **Class** 3 Flammable liquids.
- **Label** 3

(Contd. on page 9)

**Trade name: Royal Edge Splice Adhesive (Clear)**

(Contd. of page 8)

**Packing group**

- **DOT** II

**Environmental hazards**

- **Marine pollutant:** Yes
- **Special precautions for user** Warning: Flammable Liquid
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** UN1133, Adhesives, 3, II

**\* Section 15. Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

**Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

**Section 313 (Specific toxic chemical listings)**

108-88-3	toluene
110-54-3	n-hexanene
1330-20-7	xylene

**TSCA (Toxic Substances Control Act)**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

**Proposition 65**

**Chemicals known to cause cancer**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity**

108-88-3	toluene
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- **(DSL) Canada Domestic Substance List**  
All components of this product are on the DSL(Canada Domestic Substance List) or are exempt from DSL requirements.

**Carcinogenity categories**

**EPA (Environmental Protection Agency)**

108-88-3	toluene	D
1330-20-7	xylene	D

**TLV (Threshold Limit Value established by ACGIH)**

108-88-3	toluene	A4
1330-20-7	xylene	A4

**MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**OSHA-Ca (Occupational Safety and Health Administration)**

None of the ingredients is listed.

**Trade name: Royal Edge Splice Adhesive (Clear)**

(Contd. of page 9)

### **National regulations**

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### \* **Section 16. Other information**

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

#### **Department issuing SDS: Technical Services Department**

- **Creation Date:** 03/28/2003
- **Date of preparation / last revision** 02/27/2014 / 4
- **Abbreviations and acronyms:**
  - DOT: US Department of Transportation
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - Flam. Liq. 2: Flammable liquids, Hazard Category 2
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  - Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
  - Repr. 2: Reproductive toxicity, Hazard Category 2
  - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  - STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
  - Asp. Tox. 1: Aspiration hazard, Hazard Category 1

End of SDS

\* **Section 1. Identification**

**Product identifier**

- **Trade name:** Royal Edge Bonding Adhesive
- **Relevant identified uses of the substance or mixture:** Construction

**Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078

- **Information department:** Technical Services Department.

**Emergency telephone number:**

ChemTrec: UNITED STATES 1(800)424-9300 INTERNATIONAL 703-527-3887

\* **Section 2. Hazard(s) identification**

**Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2      H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Repr. 2      H361 Suspected of damaging fertility or the unborn child.  
STOT RE 2      H373 May cause damage to organs through prolonged or repeated exposure.  
Asp. Tox. 1      H304 May be fatal if swallowed and enters airways.



GHS09 Environment

Aquatic Chronic 2      H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2      H315 Causes skin irritation.  
Eye Irrit. 2A      H319 Causes serious eye irritation.  
STOT SE 3      H336 May cause drowsiness or dizziness.

**Label elements**

- **GHS label elements:** The product is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**



GHS02



GHS07



GHS08



GHS09

- **Signal word:** **Danger**



**Trade name: RPI Royal Edge Bonding Adhesive**

(Contd. of page 1)

**Hazard statements**

- Highly flammable liquid and vapor.*
- Causes skin irritation.*
- Causes serious eye irritation.*
- Suspected of damaging fertility or the unborn child.*
- May cause drowsiness or dizziness.*
- May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways.*

**Precautionary statements**

- If medical advice is needed, have product container or label at hand.*
- Keep out of reach of children.*
- Read label before use.*
- Keep away from heat/sparks/open flames. Do not smoke when handling or using material. Do not use in areas without proper ventilation.*
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.*
- IF INHALED: Remove victim to fresh air in comfortable position for breathing. Contact physician.*
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- Store in secure area.*
- Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Classification system**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



**Other hazards**

- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

\* **Section 3. Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

• **Dangerous components**

toluene	108-88-3	30-40%
Naphtha (petroleum), solvent-refined light (textile spirits)	64741-84-0	25-30%
acetone	67-64-1	10-20%

\* **Section 4. First-aid measures**

**Description of first aid measures**

- **General information:**
- Symptoms of poisoning may occur after several hours; therefore medical observation for at least 48 hours after the accident is recommended.*

(Contd. on page 3)

**Trade name: RPI Royal Edge Bonding Adhesive**

(Contd. of page 2)

**After inhalation:**

- Remove victim to area off fresh air and seek medical attention. Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably in side position for transportation.  
Call a doctor immediately.

**After skin contact:**

- Clean with rubbing alcohol, followed immediately by washing affected area with soap and water. Remove contaminated clothing. Wash clothing before reuse.

- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:** Seek medical treatment.

**Information for doctor**

- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

\* **Section 5. Fire-fighting measures**

**Extinguishing media**

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water and water with full jet

**Advice for firefighters**

- **Protective equipment:**  
Mouth respiratory protective device.  
Protective clothing and respiratory protective device.

\* **Section 6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Prevent seepage into sewage system, workpits and cellars.  
Do not allow product to reach sewage system or any water course.  
Do not allow to enter sewers/surface or ground water.

- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste in accordance with federal state and local regulations.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

**Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

\* **Section 7. Handling and storage**

**Handling**

- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.

(Contd. on page 4)

**Trade name: RPI Royal Edge Bonding Adhesive**

(Contd. of page 3)

• **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available

**Conditions for safe storage, including any incompatibilities**

• **Storage:**

• **Requirements to be met by storerooms and receptacles:** Store in a cool location away from direct heat.

• **Information about storage in one common storage facility:** Store as flammable liquid.

**Further information about storage conditions**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

• **Specific end use(s)** No further relevant information available.

**\* Section 8. Exposure controls/personal protection**

• **Additional information about design of technical systems:** No further data; see item 7.

**Control parameters**

• **Components with limit values that require monitoring at the workplace:**

**108-88-3 toluene (25-50%)**

PEL Long-term value: 200 ppm Ceiling

limit value: 300; 500\* ppm

\*10-min peak per 8-hr shift

REL Short-term value: 560 mg/m<sup>3</sup>, 150 ppm

Long-term value: 375 mg/m<sup>3</sup>, 100 ppm

TLV Long-term value: 75 mg/m<sup>3</sup>, 20 ppm

BEI

**110-54-3 n-hexane (25-50%)**

PEL Long-term value: 1800 mg/m<sup>3</sup>, 500 ppm

REL Long-term value: 180 mg/m<sup>3</sup>, 50 ppm

TLV Long-term value: 176 mg/m<sup>3</sup>, 50 ppm

Skin; BEI

**67-64-1 acetone (5-20%)**

PEL Long-term value: 2400 mg/m<sup>3</sup>, 1000 ppm

REL Long-term value: 590 mg/m<sup>3</sup>, 250 ppm

TLV Short-term value: (1782) NIC-1187 mg/m<sup>3</sup>, (750) NIC-500 ppm

Long-term value: (1188) NIC-475 mg/m<sup>3</sup>, (500) NIC-200 ppm

BEI

**Ingredients with biological limit values:**

**108-88-3 toluene (25-50%)**

BEI 0.02 mg/L

Medium: blood

Time: prior to last shift of workweek

Parameter: Toluene

0.03 mg/L Medium:

urine Time: end of

shift Parameter:

Toluene

Trade name: RPI Royal Edge Bonding Adhesive

(Contd. of page 4)

0.3 mg/g creatinine  
Medium: urine  
Time: end of shift  
Parameter: o-Cresol with hydrolysis (background)

**110-54-3 n-hexane (25-50%)**

BEI 0.4 mg/L  
Medium: urine  
Time: end of shift at end of workweek  
Parameter: 2,5-Hexanedione without hydrolysis

**67-64-1 acetone (5-20%)**

BEI 50 mg/L  
Medium: urine  
Time: end of shift  
Parameter: Acetone (nonspecific)

- **Additional information:** Lists that were valid during the creation were used as basis.

**Exposure controls**

**Personal protective equipment (see listings below)**

- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Store protective clothing separately.
- **Breathing equipment:**  
Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**  
Safety glasses with side shields.  
TIGHTLY SEALED GOGGLES
- **Body protection:** Protective work clothing

\* **Section 9. Physical and chemical properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

(Contd. on page 6)

**Trade name: RPI Royal Edge Bonding Adhesive**

(Contd. of page 5)

- **Form:** Liquid
- **Color:** Yellow
- **Odor:** Characteristic

**Change in condition**

- **Melting point:** Undetermined.
- **Boiling point:** 98 °C (208 °F)

- **Flash point:** -18 °C (-0 °F)

- **Ignition temperature:** 240.0 °C (464 °F)

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**Flammable limits**

- **Lower:** 1.2 Vol %
- **Upper:** 13.0 Vol %

- **Vapor pressure at 20 °C (68 °F):** 233.0 hPa (175 mm Hg)

- **Specific gravity:** 0.84

- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

**Solvent content**

- **Organic solvents:** 79 %

- **Solids content:** 21 %

- **Other information**  
"NOTICE: This product does not comply with the requirements of Rule 1168 of California's South Coast Air Quality Management District".  
VOC: 634G/L or 5.30 LBS/GAL  
SCAQMD: 634 G/L  
WEIGHT PER GALLON: = 7.0 LBS

**\* Section 10. Stability and reactivity**

**Reactivity**

- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** Strong oxidizers, acids and bases.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:**

Oxides of carbon, nitrogen and hydrocarbons, hydrogen chloride (thermal degradation products).

**\* Section 11. Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification**

**108-88-3 toluene**

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

(Contd. on page 7)

**Trade name: RPI Royal Edge Bonding Adhesive**

*(Contd. of page 6)*

**\* Section 11. Toxicological information**

**Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification**

**108-88-3 toluene**

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

**Primary irritant effect**

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitizing effect through inhalation is possible with prolonged exposure.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

Carcinogenic

**Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

108-88-3	toluene	3
----------	---------	---

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

**\* Section 12. Ecological information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

**Behavior in environmental systems**

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

**Ecotoxicological effects:**

- **Remark:** Toxic for fish

**Additional ecological information**

- **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground. Toxic for aquatic organisms

Water hazard class 3 (self-assessment) : extremely hazardous for water.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

**\* Section 13. Disposal considerations**

**Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

*(Contd. on page 8)*


Trade name: RPI Royal Edge Bonding Adhesive

(Contd. of page 7)

**Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

**\* Section 14. Transport information**

- **UN-Number**
- **DOT** UN1133
- **UN proper shipping name**
- **DOT** Adhesives, containing a flammable liquid
- **Transport hazard class(es)**
- **DOT**
- 
- **Class** 3 Flammable liquids.
- **Packing group**
- **DOT** II
- **Environmental hazards:**
- **Special marking (ADR):** Symbol (fish and tree)
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** UN1133, Adhesives, ENVIRONMENTALLY HAZARDOUS, 3, II

**\* Section 15. Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **Sara**

- **Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings)**

64741-84-0	Naphtha (petroleum), solvent-refined light (textile spirits)
------------	--

108-88-3	toluene
----------	---------

- **TSCA (Toxic Substances Control Act)**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

- **Proposition 65**

- **Chemicals known to cause cancer:**

64741-84-0	Naphtha (petroleum), solvent-refined light (textile spirits)
------------	--

- **Chemicals known to cause reproductive toxicity:**

Warning: This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

108-88-3	toluene
----------	---------

- **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL (Canada Domestic Substance List) or are exempt from DSL requirements.

(Contd. on page 9)



**Trade name: RPI Royal Edge Bonding Adhesive**

(Contd. of page 8)

• **Cancerogenity categories**

• **EPA (Environmental Protection Agency)**

108-88-3	toluene	D
67-64-1	acetone	D

• **TLV (Threshold Limit Value established by ACGIH)**

108-88-3	toluene	A4
67-64-1	acetone	A4

• **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

• **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

• **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**National regulations**

- **Water hazard class:** Water hazard class 3 (Self-assessment) : extremely hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

\* **Section 16. Other information**

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

• **Department issuing SDS: Technical Services Department**

• **Creation Date:** 03/28/2003

• **Date of preparation / last revision** 02/27/2014 / 4

• **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

DOT: US Department of Transportation

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: Very persistent and very bioaccumulative

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2



\* **Section 1. Identification**

**Product identifier:** Adhesive

- **Trade name:** RPI Royal Edge Bonding Adhesive (Water-Based)
- **Product Code:** BAWB5G

**Relevant identified uses of the substance or mixture**

Adhesive for single-ply membrane roofing systems.

**Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**  
Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078  
Information Phone Number: 574-293-9096  
Information Department: Technical Services Department

**Emergency Telephone Number**

Chemtrec: 800-424-9300  
Chemtrec International: 703-527-3887

\* **Section 2. Hazard(s) Identification**

**Classification of the substance or mixture**



GHS07

H315 Causes skin irritation

H320 Causes eye irritation

**Label elements**

- **GHS label elements:** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02

**Signal word:** WARNING

**Hazard statements**

Causes skin irritation.

Causes eye irritation.

**Precautionary statements**

Prevention: Read label before use. If medical advice is needed, have product container or label at hand.

Keep out of reach of children. Do not use indoors or in confined airspace.

Wear protective gloves, clothing, and eyeglasses.

Wear protective gloves/protective clothing/eye protection/face protection.

Keep container tightly closed.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses (if easy to do), continue rinsing.

Specific treatment (see on label).

Remove/Take off all contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical attention/advise

If eye irritation occurs: Get medical attention/advise.

Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)

**Trade name: Royal Edge Bonding Adhesive (Water-Based)**

*(Contd. of page 1)*

**Classification system**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



**Other hazards**

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**\* Section 3. Composition/Information on Ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Adhesive

<b>Dangerous components</b>	
Styrene Butadiene Polymer	2.5-10 %
Aliphatic Hydrocarbon resin	2.5-10 %

*Any concentration shown as a range is to protect confidentiality or due to batch variation. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations represented, are classified as hazardous to health or the environment and hence require reporting in this section*

**\* Section 4. First-Aid Measures**

**Description of first aid measures**

- **After inhalation:** Remove to fresh air. Administer oxygen if breathing is labored. Give artificial respiration if breathing is stopped. Use a proper respiratory medical device. Seek immediate medical attention if oxygen or artificial respiration is administered.
- **After skin contact:** Remove contaminated clothing and immediately wash with soap and water and rinse thoroughly. Call emergency 911 or other medical service personnel.
- **After eye contact:** Rinse opened eye for several minutes under clean running water, consult a physician.
- **After swallowing:** Do not induce vomiting. Do not give mouth to mouth respiration if victim has swallowed the material. Seek immediate medical treatment.

**Most important symptoms and effects, both acute and delayed**

**Acute symptoms**

- **Inhalation:** No further relevant information available.
- **Skin:** May aggravate pre-existing skin conditions.
- **Eye:** Eye contact may cause irritation, tearing, and blurred vision.

**Indication of any immediate medical attention and special treatment needed**

- **Information for Physician**  
No further relevant information available..

*(Contd. on page 3)*

Trade name: Royal Edge Bonding Adhesive (Water-Based)

(Contd. of page 2)

### **Environmental precautions**

Do not allow product to enter sewage system or water course, surface or ground water.  
Inform respective authorities in case of seepage into water course, ground water or sewage system.

- **Methods and material for containment and cleaning up:**  
Dispose of contaminated material as waste in accordance with federal state and local regulations.

## \* **Section 5. Fire-Fighting Measures**

### **Extinguishing media**

- **Suitable extinguishing agents:** CO<sub>2</sub>, extinguishing powder or water fog. Fight large fires with alcohol resistant foam or water spray. Use fire fighting measures that suit the environment.
- **Unsuitable extinguishing agents:**  
No further relevant information available.
- **Specific hazards arising from material:**  
No further relevant information available.
- **Advice for firefighters:**  
Use water spray to keep fire-exposed containers cool. Do not allow water used in fire suppression to be discharged into waterways, sewers, or drains.
- **Protective equipment:**  
Wear impermeable protective clothing and self-contained breathing apparatus.

## \* **Section 6. Accidental Release Measures**

### **Personal precautions, protective equipment and emergency procedures**

- **Personal Precautions:**  
Wear protective gloves, clothing, and eyeglasses. Wear appropriate respirator when ventilation is inadequate. Keep unprotected people away.

### **Methods and materials for clean-up and containment**

Clean up using inert liquid binding materials (sand, diatomite, acid binders, universal binders, sawdust). Collect material and dispose in secure containers in accordance with local, state, and federal regulations.

- **Environmental Precautions:** Do not allow product to enter water course or sewage system. Do not allow product to enter drains, sewers or ground water. Notify respective environmental authorities of any seepage into sewer, drainage, or ground water.

### **Reference to other sections**

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

## \* **Section 7. Handling and Storage**

### **Handling**

- **Precautions for safe handling:**  
Wear protective nitrile gloves when handling. Do not get on skin or in eyes. Do not ingest. Wash contaminated clothing prior to reuse. Prevent formation of aerosols.
- **Advice on general occupational hygiene:**  
Eating, drinking, and smoking should be prohibited in areas where this material is handled, processed, or stored. See Section 8 for additional information on hygiene measures.
- **Information about protection against explosions and fires:**  
This product is not flammable. Keep container closed when not in use.

(Contd. on page 4)

Trade name: Royal Edge Bonding Adhesive (Water-Based)

(Contd. of page 3)

\* **Section 7. Handling and Storage**

**Conditions for safe storage, including any incompatibilities**

- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location away from direct heat.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Keep material tightly sealed in original containers. Protect from freezing.

**Specific end use(s)**

Adhesive for single-ply membrane roofing systems.

\* **Section 8. Exposure Controls/Personal Protection**

- **Additional information about design of technical systems:** No further data; see item 7.

**Control parameters**

- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored the workplace.
- **Additional information:** Product contains natural rubber latex.

**Exposure controls**

- **Personal protective equipment (see listings below)**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing and wash before reuse. Wash hands before breaks and at the end of work. Store protective clothing separately.
- **Breathing equipment:**  
Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
- **Protection of hands:** Wear protective neoprene, nitrile, or viton gloves. Consult glove manufacturer for break-thru time.



- **Eye protection:** Wear protective eyeglasses with side shields



- **Body protection:** Protective work clothing



\* **Section 9. Physical and Chemical Properties**

**Information on basic physical and chemical properties**

- **General Information**
- **Appearance**

(Contd. on page 5)

**Trade name: Royal Edge Bonding Adhesive (Water-Based)**

(Contd. of page 4)

- **Form:** Liquid
- **Color:** White when wet, clear when dry
- **Odor:** Characteristic

**Change in condition**

- **Melting point:** Undetermined.
- **Boiling point:** Undetermined.
- **Flash point:** Not applicable
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Specific gravity at 20 C (68° F):** 1.02 g/cm (8.512 lbs/gal)

- **Solubility in / Miscibility with Water:** soluble.

**Solvent content**

- **Organic solvents:** 0.0 %

- **Solids content:** 45 %

**Other information**

Weight per gallon: = 8.28 LBS

**\* Section 10. Stability and Reactivity**

**Reactivity**

Stable at ambient temperatures and pressures.

- **Chemical stability:**  
The product is stable.

**Thermal decomposition / conditions to be avoided**

Under normal conditions of storage and when used according to specifications, hazardous decomposition products should not be produced.

- **Possibility of hazardous reactions:**  
The product is incompatible with strong oxidizers, acids and bases.
- **Conditions to avoid:**  
No further relevant information available.
- **Incompatible materials:**  
No further relevant information available.
- **Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide.

**\* Section 11. Toxicological Information**

**Information on toxicological effects**

- **Acute toxicity:**

**Primary irritant effect**

- **on the skin:** May irritate the skin. Prolonged contact may cause dermatitis and drying of the skin.
- **on the eye:** Eye contact may cause irritation, redness, tearing, and blurred vision.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.



**Trade name: Royal Edge Bonding Adhesive (Water-Based)**

*(Contd. of page 5)*

• **NTP (National Toxicology Program)**

*None of the ingredients is listed.*

**\* Section 12. Ecological Information**

**Toxicity**

- **Aquatic toxicity:** *No further relevant information available.*
- **Persistence and degradability:** *No further relevant information available.*

**Behavior in environmental systems**

- **Bioaccumulative potential:** *No further relevant information available.*
- **Mobility in soil:** *No further relevant information available.*

**Additional ecological information**

- **General notes:**  
*At present there are no ecotoxicological assessments.*

**Results of PBT and vPvB assessment**

- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **Other adverse effects:** *No further relevant information available.*

**\* Section 13. Disposal Considerations**

**Waste treatment methods**

- **Recommendation:**  
*Must not be disposed of together with household garbage. Do not allow disposed product to reach sewage system  
Must be disposed according to local, state, and federal regulations.*

**Uncleaned packagings**

- **Recommendation:** *Disposal must be made according to official regulations.*

**\* Section 14. Transport Information**

**UN-Number**

- **DOT, ADR, ADN, IMDG, IATA**                      *Void*

**UN proper shipping name**

- **DOT, ADR, ADN, IMDG, IATA**                      *Void*

**Transport hazard class(es)**

- **DOT, ADR, ADN, IMDG, IATA**  
**Class**    *Void*

**Packing group**

- **DOT, ADR, IMDG, IATA**                                      *Void*

- **Environmental hazards:**                                      *Not applicable*

- **Special precautions for users:**                              *Not applicable*

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**                      *Not applicable*

*(Contd. on page 7)*



Trade name: Royal Edge Bonding Adhesive (Water-Based)

(Contd. of page 6)

**Transport/Additional information:** DOT, ADR, IMDG, IATA -Not regulated in transport.  
Not dangerous according to the above specifications.

- **UN "Model Regulation":** Not applicable

\* **Section 15. Regulatory Information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

**Proposition 65**

- **Chemicals known to cause cancer:**

All ingredients are listed.

- **Chemicals known to cause reproductive toxicity:**

None of the ingredients is listed.

**(DSL) Canada Domestic Substance List**

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

**Carcinogenicity categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

- **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

\* **Section 16. Other Information**

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

(Contd. on page 8)

**Trade name: Royal Edge Bonding Adhesive (Water-Based)**

(Contd. of page 7)

- **Department issuing SDS:** *Technical Services Department.*

- **Creation Date:** *05/28/2003*

- **Date of preparation / last revision** *03/11/2014 / 2*

- **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*End of SDS*



Roofing Products International, Inc.

Article Number 119

## Safety Data Sheet

acc. to OSHA HCS

Revision Number 2

Page 1/10

Revision Date 23/1/2015

### \* Section 1. Identification

**Product identifier: Single -Ply Membrane Bonding Adhesive**

- **Trade name: Royal Edge Low VOC Bonding Adhesive (Solvent Based)**
- **Product Code: BASSGLV**
- **Relevant identified uses of the substance or mixture:** Contact adhesive used for adhering single-ply membranes to approved insulations, substrates and other surfaces in low slope roofing applications. Not to be used indoors or in unventilated confined areas.

**Details of the supplier of the safety data sheet Manufacturer/Supplier**

Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078

**Emergency telephone number: ChemTrec: UNITED STATES 1(800)424-9300**

### \* Section 2. Hazard(s) Identification

**Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
STOT SE 3 H336 May cause drowsiness or dizziness.

**Label elements**

**GHS label elements:**

- The product is classified and labeled according to the Globally Harmonized System (GHS)

**Hazardous pictograms**



GHS02 GHS07 GHS08

**Signal word: DANGER**

- **Hazard statements**

Highly flammable liquid and vapor.  
Causes skin irritation.  
Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

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Page 2/10

Trade name: Royal Edge Low VOC Bonding Adhesive (Solvent Based)

Revision Date 23/1/2015

(Contd. of page 1)

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

## Precautionary statements

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep away from heat/sparks/open flames. Do not smoke. Do not use in areas without proper ventilation.

Use explosion-proof electrical/ventilating/lighting/equipment.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Store in secured area.

Dispose of contents/container in accordance with local/regional/national/international regulations.

## Classification system

- NFPA ratings (scale 0 - 4)

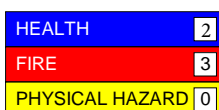


Health = 2

Fire = 3

Reactivity = 0

- HMIS-ratings (scale 0 - 4)



Health = 2

Fire = 3

Physical Hazard = 0

## Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

## \* Section 3. Composition/Information on Ingredients

### Chemical characterization: Mixtures

- Description: Mixture of the substances listed below with nonhazardous additions.
- Dangerous components:

	Naphtha (petroleum), solvent-refined light (textile spirits)	
540-88-5	tert-butyl acetate	25-50%
79-20-9	methyl acetate	10-25%
67-64-1	acetone	2.5-10%
108-88-3	toluene	2.5-10%
	phenolic resin	2.5-10%

## \* Section 4. First-Aid Measures

### Description of first aid measures

- After inhalation: Remove victim to area of fresh air and maintain comfortable breathing position. Supply fresh air or oxygen. If necessary, provide artificial respiration by trained personnel. Contact physician. In case of unconsciousness, place patient in a stable side position for transportation.
- After skin contact: Remove with rubbing alcohol and immediately wash with water and soap and rinse thoroughly.
- After eye contact: Check for and remove contact lenses. Rinse opened eye for 20 minutes under clean, running

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- **After swallowing:** Seek immediate medical treatment. Remove dentures. Drink 1-2 glasses of water but do not induce vomiting. Do not give liquids to a drowsy, convulsing or unconscious person. If vomiting occurs, keep head below hips to prevent aspiration.

## Information for doctor

**Most important symptoms and effects, both acute and delayed**

- **Symptoms and Potential Acute Effects**
- **Eye Contact:** Causes serious eye irritation.
- **Inhalation:** Irritation to lungs and mucous membranes.
- **Skin Contact:** Causes skin irritation.
- **Ingestion:** Irritating to mouth, throat, and lungs.

## Over-exposure Symptoms

- **Eye Contact:** Pain, irritation, watering, and redness.
- **Inhalation:** Dizziness, nausea or vomiting. Sensitive individuals may experience nose or throat irritation with prolonged exposure to fumes or vapors.
- **Skin Contact:** Irritation and redness.
- **Ingestion:** Dizziness, nausea or vomiting.

## Indication of any immediate medical attention and special treatment needed

Contact poison treatment specialist if large quantities are inhaled or ingested.

- **Specific Treatment:** No Specific treatment.

## \* Section 5. Fire-Fighting Measures

### Extinguishing media

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder, or foam. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water.

### Advice for firefighters

- **Hazardous Thermal Decomposition Products:** Toxic gases or vapors such as Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, Sulfur Dioxide, and partially burned Carbon.
- **Protective equipment:** Firefighters should wear appropriate protective equipment and self-contained breathing apparatus.

## \* Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste in accordance with federal state and local regulations.
- **Small Spills:** Absorb using inert material. Use non-sparking tools. Transfer the material into secure containers for proper disposal. Wear the appropriate protective clothing and equipment.  
Ensure adequate ventilation.
- **Large Spills:** Same as small spills.

### Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## \* Section 7. Handling and Storage

### Handling

- **Precautions for safe handling**

Ensure proper air ventilation/exhaust at the workplace. Prevent formation of aerosols. Avoid breathing headspace vapors. Open and handle receptacle with care. Under normal handling conditions, protective gloves, glasses, and clothing are adequate.

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke. Protect against electrostatic charges by grounding objects prone to static electricity. Keep work area free from open flames, sparks, and hot metal surfaces. Use non sparking tools and explosion proof electrical equipment. Do not open containers in confined areas that restrict adequate ventilation.

### Conditions for safe storage, including any incompatibilities

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store in a cool dry location away from direct heat. Store in unopened original containers.

- **Information about storage incompatibilities in one common storage facility:**

Store as flammable liquid.

Store away from oxidizing agents.

- **Further information about storage conditions:**

Keep receptacle tightly sealed.

- **Specific end use(s)**

No further relevant information available.

## \* Section 8. Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see item 7.

### Control parameters

Components with limit values that require monitoring at the workplace:	
<b>540-88-5 tert-butyl acetate (25-50%)</b>	
PEL	Long-term value: 950 mg/m <sup>3</sup> , 200 ppm
REL	Long-term value: 950 mg/m <sup>3</sup> , 200 ppm
TLV	Long-term value: 950 mg/m <sup>3</sup> , 200 ppm
<b>79-20-9 methyl acetate (10-25%)</b>	
PEL	Long-term value: 610 mg/m <sup>3</sup> , 200 ppm
REL	Short-term value: 760 mg/m <sup>3</sup> , 250 ppm Long-term value: 610 mg/m <sup>3</sup> , 200 ppm
TLV	Short-term value: 757 mg/m <sup>3</sup> , 250 ppm Long-term value: 606 mg/m <sup>3</sup> , 200 ppm
<b>67-64-1 acetone (2.5-10%)</b>	
PEL	Long-term value: 2400 mg/m <sup>3</sup> , 1000 ppm
REL	Long-term value: 590 mg/m <sup>3</sup> , 250 ppm
TLV	Short-term value: (1782) NIC-1187 mg/m <sup>3</sup> , (750) NIC-500 ppm Long-term value: (1188) NIC-475 mg/m <sup>3</sup> , (500) NIC-200 ppm BEI
<b>108-88-3 toluene (2.5-10%)</b>	
PEL	Long-term value: 200 ppm Ceiling limit value: 300;-500* ppm *10-min peak per 8-hr shift

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REL	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
TLV	Long-term value: 75 mg/m <sup>3</sup> , 20 ppm BEI
<b>Ingredients with biological limit values:</b>	
<b>67-64-1 acetone (2.5-10%)</b>	
BEI	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)
<b>108-88-3 toluene (2.5-10%)</b>	
BEI	0.02 mg/L Medium: urine Time: prior to last shift of workweek Parameter: Toluene  0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene  0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: 0-Cresol with hydrolysis (background)

- **Additional information:** The lists that were valid during the creation were used as basis.

## Exposure controls

### Personal protective equipment (see listings below)

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.  
Store protective clothing separately

- **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

- **Protection of hands:**



Protective gloves

The glove material must be impermeable and resistant to the product/ the substance/ the preparation.

### Material of gloves

Nitrile rubber (NBR), Chloroprene rubber (CR). The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.

- **Penetration time of glove material**

The glove manufacturer must determine and adhere to the exact break through time of the protective gloves.

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- **Eye protection:** (Contd. of page 5)



Safety glasses with side shields.

- **Body protection:** Protective work clothing should be worn. Where static electricity is a concern, anti-static boots and gloves may be worn.

## \* Section 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

- **General Information**
- **Appearance:**
- **Form:** Liquid
- **Color:** Amber
- **Odor:** Characteristic
- **Odor Threshold:** Not determined

### Change in condition

- **Melting point:** Undetermined.
- **Boiling point:** 55° C (131° F)
- **Flash point:** -19° C (-2° F)
- **Ignition temperature:** 455° C (851° F)
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

### Flammable limits

- **Lower:** 3.1 Vol %
- **Upper:** 16.0 Vol %
- **Vapor pressure at 20 °C (68 °F):** 220.0 hPa (165 mm Hg)
- **Specific gravity:** 0.92 g/cm<sup>3</sup>, (7.677 lbs/gal)
- **Relative density** not determined
- **Vapour density** not determined
- **Evaporation rate** not determined

- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined

### Viscosity

- **Dynamic:** Not determined
- **Kinematic:** Not determined

### Solvent Content

- **Organic solvents:** 81.0%
- **Solids content:** 19.0%

### Other information

**Weight per gallon:** 7.7 lbs  
**VOC SCAQMD:** 245 g/l

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## \* Section 10. Stability and Reactivity

### Reactivity

#### Chemical stability

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** All ignition sources including sparks, hot surfaces, open flames, and any areas where static electricity may occur. Areas where vapors or fumes may build up. Do not use in a confined space without adequate ventilation.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**  
Oxides of carbon, nitrogen and hydrocarbons, hydrogen chloride (thermal degradation products).

## \* Section 11. Toxicological Information

### Information on toxicological effects

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

#### 108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect. Vapors may be irritating to the eyes.
  - **Sensitization:** No sensitizing effects known.

### Additional toxicological information

The product shows the following dangers according to internally approved calculation methods for preparations:

- **Irritant**
- **Harmful**  
May cause reproductive harm.

### Carcinogenic categories

#### IARC (International Agency for Research on Cancer)

108-88-3	toluene	3
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#### NTP (National Toxicology Program)

None of the ingredients is listed.

## \* Section 12. Ecological Information

### Toxicity

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

### Behavior in environmental systems

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

### Ecotoxicological effects

- **Remark:** Toxic for fish
- **Remark:** Toxic for fish and other aquatic organisms

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## Additional ecological information

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- **General notes:** At present there are no ecotoxicological assessments.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## Other adverse effects

No further relevant information available.

## \* Section 13. Disposal Considerations

### Waste treatment methods

- **Recommendation:** Must be specially treated adhering to official regulations.

### Uncleaned packagings

- **Recommendation:** Disposal must be made according to official regulations.

## \* Section 14. Transport Information

### UN-Number

- **DOT, ADR, IMDG, IATA** UN1133

### UN proper shipping name

- **DOT** Adhesives
- **ADR** 1133 Adhesives
- **IMDG, IATA** ADHESIVES

### Transport hazard class(es)

- **DOT**



- **Class** 3 Flammable liquids.
- **Label** 3

### ADR, IMDG, IATA



- **Class** 3 Flammable liquids
- **Label** 3

### Packing group

- **DOT, ADR, IMDG, IATA** II

- **Environmental hazards:** Not applicable.

### Special precautions for user

Warning: Flammable liquids

- **Danger code (Kemler):** 33
- **EMS Number:** F-E, S-E

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

- **UN "Model Regulation":** UN1133, ADHESIVES, 3, II

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## \* Section 15. Regulatory Information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

108-88-3 | toluene

- **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

### Proposition 65

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity:**

108-88-3 | toluene

### (DSL) Canada Domestic Substance List

All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.

### Carcinogenicity categories

- **EPA (Environmental Protection Agency)**

67-64-1 | acetone

I

108-88-3 | toluene

II

- **TLV (Threshold Limit Value established by ACGIH)**

108-88-3 | toluene

A4

67-64-1 | acetone

A4

- **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety and Health Administration)**

None of the ingredients is listed.

### National regulations

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## \* Section 16. Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing MSDS:** Technical Services Department.
- **Creation Date:** 08/12/2000

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- **Date of preparation / last revision:** 03/21/2007 / 1

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Repr. 2: Reproductive toxicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

End of SDS

## \* Section 1. Identification

### Product identifier

- **Trade name:** Royal Edge Low VOC Primer/Activator
- **Product Code:** PA1GLV
- **Relevant identified uses of the substance or mixture:** Construction

### Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**  
Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078
- **Information department:** Technical Services Department

### Emergency telephone number

**ChemTrec:** UNITED STATES 1(800)424-9300 INTERNATIONAL 703-527-3887

## \* Section 2. Hazard(s) identification

### Classification of the substance or mixture



GHS02 Flame

- **Flam. Liq. 2** Highly flammable liquid and vapor.



GHS09 Environment

- **Aquatic Chronic 2** H411 Toxic to aquatic life with long lasting effects.



GHS07

- **Skin Irrit. 2** H315 Causes skin irritation.
- **Eye Irrit. 2A** H319 Causes serious eye irritation.

### Label elements

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02 GHS07 GHS09

**Signal word: Danger**

### Label elements

#### Hazard statements

Highly flammable liquid and vapor.  
Causes serious eye irritation.  
May cause drowsiness or dizziness.

**Tradename: Royal Edge Low VOC Primer/Activator**

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*Suspected of damaging fertility or the unborn child.  
May cause damage to organs through a single exposure.  
Toxic to aquatic life with long lasting effects/*

**Precautionary statements**

*If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use. Wear protective gloves and eye safety glasses.  
Keep away from heat/sparks/open flames. Do not smoke when handling or using material.  
Do not use in areas without proper ventilation. While using product, keep container tightly closed.  
Specific Treatment (see on this label)  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF IN EYES: Rinse cautiously with clean water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.  
Store in secure area.  
Collect any spilled material.  
In case of fire use CO2, powder or water spray.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Classification system**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



**Other hazards**

- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**\* Section 3. Composition/information on ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

Dangerous Components	CAS Number	
heptane	142-82-5	5-50 %
4-chloro-alpha, alpha, alpha-trifluorotoluene	95-56-6	65-85 %

**Additional information:**

*All concentrations are in percent by weight unless the ingredient is a gas. Gas concentrations are in percent by volume. Any pigments or fillers in this product which may be considered "Hazardous" are potentially hazardous only if inhaled as an airborne dust. Exposure by these ingredients as used in sealants, putties, bedding compounds and non-sprayable products is highly unlikely. For the wording of the listed risk phrases refer to section 15.*

**\* Section 4. First-aid measures**

**Description of first aid measures**

- **General information:**

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*Symptoms of poisoning may occur after several hours; therefore medical observation for at least 48 hours after the accident is recommended.*

- **After inhalation:**  
*Remove victim to area off fresh air and seek medical attention. Supply fresh air. If required, provide artificial respiration. If breathing is difficult, give oxygen. Call a doctor immediately. Place patient in stable side position for transportation.*
- **After skin contact:**  
*Remove contaminated clothing and immediately wash affected area with soap and water. Rinse affected area with clean water for 15 minutes. Wash clothing before reuse. Contact a physician.*
- **After eye contact:**  
*Rinse opened eye for several minutes under clean running water. Contact a physician.*
- **After swallowing:**  
*Seek medical treatment immediately. Call a poison center or physician. Remove any dentures. Wash out mouth with clean water. and drink 1-2 glasses of water but don not induce vomiting. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed, product can enter lungs and cause damage. If vomiting occurs the head should be kept low to prevent vomit from entering lungs. If unconscious, place in recovery position and get immediate medical attention. Do not give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing to provide unrestricted breathing.*

**Most important symptoms and effects, both acute and delayed**

- **Eye Contact:**  
*Causes eye irritation.*
- **Inhalation:**  
*Harmful if inhaled. Can cause central nervous system depression. May cause drowsiness and dizziness.*
- **Skin Contact:**  
*Causes skin irritation.*
- **Ingestion:**  
*Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat, and stomach.*

**Over-exposure signs and symptoms**

**Eye Contact**

- **Adverse symptoms may include the following:** Pain or irritation. Redness and watering of the eyes.

**Inhalation**

- **Adverse symptoms may include the following.** Nausea or vomiting, headache with drowsiness or fatigue. Dizziness with disorientation and vertigo. Unconsciousness.

**Skin Contact**

- **Adverse symptoms include the following.** Irritation and redness.

**Ingestion**

- **Adverse symptoms may include the following.** Nausea and/or vomiting.

**Indication of any immediate medical attention and special treatment needed**

- **Information for Physician:**  
*No further relevant information available.*
- **Specific treatments:**  
*Treat symptomatically and supportively.*
- **Protection of first aiders:**  
*No action shall be taken involving any personal risk or without suitable training.*

\* **Section 5. Fire-fighting measures**

**Extinguishing media**

- **Suitable extinguishing agents:**  
*CO2, sand, extinguishing powder. Do not use water.*
- **For safety reasons unsuitable extinguishing agents:**  
*Water and water with full jet*

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### **Advice for firefighters**

- **Protective equipment:**

Mouth respiratory protective device.

Protective clothing and respiratory protective device.

## \* **Section 6. Accidental release measures**

### **Personal precautions, equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Do not allow product to enter sewage system, ground water, workpits, cellars or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow product to enter surface or ground water.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste in accordance with federal state and local regulations.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents.

### **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

## \* **Section 7. Handling and storage**

### **Handling**

- **Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Wear personal protective equipment.

Wash thoroughly after handling.

Open and handle receptacle with care.

Do not use air pressure to unload containers.

Keep container tightly closed.

Do not breath vapors or spray mist.

- **Information about protection against explosions and fires:**

Store as a flammable liquid.

Use explosion proof equipment. Keep away from ignition sources. Do not smoke.

Bond and ground containers. Although bonded and grounded, static electricity may accumulate.

Use only non-sparking tools.

Protect against electrostatic charges.

Keep respiratory protective device available.

### **Advice on general occupational hygiene**

Do not eat, drink, or smoke in areas where this product is being handled, stored, or processed.

Workers should wash face and hands before eating, drinking or smoking.

Remove protective clothing and equipment before entering eating areas.

### **Conditions for safe storage, including any incompatibilities**

Store as a flammable liquid in a cool, segregated, approved area in accordance with local regulations.

Store in secured area away from imcompatable materials and food and drink.

Eliminate all ignition sources.

Material must be stored in original containers tightly closed and sealed.

Store containers upright to prevent spillage.

Do not store in unlabeled containers.

### **Specific end use(s)**

No further relevent information available.

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**\* Section 8. Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.

**Control parameters**

**Components with limit values that require monitoring at the workplace:**

Name of Ingredients	CAS Number		
Heptane	142-82-5	PEL	Long-term value: 2000 mg/m <sup>3</sup> , 500 ppm
		REL	Ceiling limit value: C 1800* mg/m <sup>3</sup> , C 440* ppm *15- min
		TLV	Short-term value: 2050 mg/m <sup>3</sup> , 500 ppm
			Long-term value: 1640 mg/m <sup>3</sup> , 400 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.

**Exposure controls**

**Personal protective equipment (see listings below)**

- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of the work day.  
Avoid contact with the eyes and skin.  
Store protective clothing separately.
- **Breathing equipment:**  
Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/substance and the preparation. Check with glove manufacturer for data regarding chemical resistance.

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.

- **Penetration time of glove material:**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Safety glasses

Safety glasses with side shields should be worn. If splashes are likely to occur, wear goggles or a full face mask. Do not wear contact lenses. Eye wash stations and safety showers should be close to workstation.

- **Skin and body protection:**  
Wear solvent resistant apron and boots. Material should be antistatic and flame resistant.

**\* Section 9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

*(Contd. on page 6)*

**Tradename: Royal Edge Low VOC Primer/Activator**

*(Contd. of page 5)*

**Appearance**

- **Form:** Liquid
- **Color:** Clear
- **Odor:** Characteristic

**pH-value:** Not determined

**Change in condition**

- **Melting point/Melting Range** Undetermined
- **Boiling point/Boiling Range** 98°C (208°F)
- **Flash point:** -4° C (25°F)
- **Ignition temperature:** 215 °C (419 °F)
- **Auto igniting:** Not selfigniting
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**Flammable limits**

**Lower:** 1.1 Vol %  
**Upper:** 7.0 Vol %

- **Vapor pressure at 20 °C (68 °F):** 48 hPa (36 mm Hg)
- **Specific gravity** 1.13
- **Relative density** Not determined
- **Vapor density: (Air=1)** 3.6
- **Evaporation rate** (ethyl ether = 1): 3.5
- **Partition coefficient (n-octanol/water: gravity)** Not determined
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix

**Solvent content**

• **Organic solvents:** 90.5%

• **Solids content:** 9.5%

**Other information**

VOC: = 1.79 lbs/gal  
215 g/l SCAQMD Rule 1168 Method  
Weight per gallon: = 9.4 lbs

**\* Section 10. Stability and reactivity**

- **Reactivity:**  
Not expected to be explosive, self-reactive or self-heating under normal conditions.

**Chemical stability**

- **Thermal decomposition/conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**  
No further information is available.
- **Conditions to avoid:**  
Heat, open flames, and sparks.  
Do not allow vapor to accumulate in low or confined areas Do not pressurize, cut, weld, braze, drill, or grind on containers. Situations conducive to the build up of static electricity.

*(Contd. on page 7)*

Tradename: Royal Edge Low VOC Primer/Activator

(Contd. of page 6)

- **Incompatible materials:**  
Acids, aldehydes, alkalis, amines, ammonia, oxidizing agents.
- **Hazardous decomposition products:**  
Oxides of carbon, nitrogen and hydrocarbons, hydrogen bromide (thermal degradation products). Hydrocarbons

\* **Section 11. Toxicological information**

**Information on toxicological effects**

- **Acute toxicity:**
- **Primary irritant effect**
- **On the skin:** Irritant to skin and mucus membranes.
- **On the eye:** Irritating effect. Vapors may be irritating to the eyes.
- **Sensitization:** Sensitizing effect through inhalation is possible with prolonged exposure.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations.  
Harmful  
Irritant.

**Carcinogenic categories**

**IARC (International agency for Research on Cancer)**

None of the ingredients is listed.

**NTP (National Toxicology Program)**

None of the ingredients is listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

\* **Section 12. Ecological information**

**Toxicity**

- **Aquatic toxicity:** No further relevant information.
- **Persistence and degradability:** No further relevant information.

**Behavior in environmental systems**

- **Biocumulative potential:** No further relevant information.
- **Mobility in soil:** No further relevant information.

**Ecotoxicological effects**

- **Remarks:** Very toxic to fish.

**Additional ecological information**

- **General notes:** At present there are no ecotoxicological assessments.

**Results of PBT and vPvB assessments**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information.

\* **Section 13. Disposal considerations**

**Waste treatment method**

- **Recommendations**

(Contd. on page 7)

**Tradename: Royal Edge Low VOC Primer/Activator**

*(Contd. of page 7)*

**\* Section 13. Disposal considerations**

**Waste treatment method**

• **Recommendation:**

The generation of waste should be avoided or minimized whenever and wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental and waste disposal legislation and all local, regional, and federal authority requirements. Dispose of surplus and non-recyclable products thru a licensed waste disposal contractor. Waste should not be allowed to enter streams, lakes, sewer systems, or other open waterways. Waste packaging should be recycled. This material and its containers that have not been cleaned or rinsed out may contain product residues or vapors that are highly flammable and may explode. Do not cut, weld, or grind used containers. Do not dispose with household garbage. Any contaminated cleaning materials used with this product must be properly disposed and treated as flammable materials unless they have been thoroughly washed and clean of any product or residue. Do not allow product to reach sewage system.

**Uncleaned packagings**

• **Recommendation:** Disposal must be made in compliance with local, state, regional, and federal regulations.

**\* Section 14. Transportation information**

**UN-Number**

• **DOT, ADR, IMDG, IATA** UN1133

**UN proper shipping name**

• **DOT, IMDG, IATA** *Adhesives*  
**ADR** *1133 Adhesives, Environmentally Hazardous*

**Transport hazard classes**

• **DOT**



• **Class** *3 Flammable liquids.*  
• **Label** *3*

**ADR, IMDG**



• **Class** *3 Flammable liquids.*  
• **Label** *3*

**IATA**



• **Class** *3 Flammable liquids.*  
• **Label** *3*

**PACKING GROUP**

• **DOT** *II*

**Tradename: Royal Edge Low VOC Primer/Activator**

*(Contd. of page 8)*

**Environmental hazards**

**Marine pollutant:** *Symbol (fish and tree)*  
**Special Marking (ADR)** *Symbol (fish and tree)*

• **Special precautions for user** *Warning: Flammable liquids*

• **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** *Not applicable*

**DOT**

• **Remarks:** *Special marking with the symbol (fish and tree)*

• **UN "Model Regulation":** *UN 1993, Adhesives, Flammable Liquid, N.O.S., 3, II*

**\* Section 15. Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture.**

• **Sara**

• **Section 355 (extremely hazardous substances):**

*None of the ingredients is listed.*

• **Section 313 (Specific toxic chemical listings):**

*None of the ingredients is listed.*

• **TSCA (Toxic Substances Control Act):**

*All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.*

**Proposition 65**

• **Chemicals known to cause cancer:**

*None of the ingredients listed.*

• **Chemicals known to cause reproductive toxicity:**

*None of the ingredients listed.*

**(DSL) Canada Domestic Substance List**

*All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.*

**Carcinogenity categories**

• **EPA (Environmental Protection Agency)**

*None of the ingredients listed.*

• **TLV (Threshold Limit Value established by ACGIH)**

*None of the ingredients listed.*

• **MAK (German Maximum Workplace Concentration))**

*None of the ingredients listed.*

• **NIOSH-CA (National Institute for Occupational Safety and Health)**

*None of the ingredients listed.*

**National regulations**

• **Water hazard class:** *Water hazard class 2 (Self-assessment): hazardous for water.*

• **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

*(Contd. on page 10)*



**Tradename: Royal Edge Low VOC Primer/Activator**

(Contd. of page 9)

\* **Section 16. Other information**

*Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.*

- **Department issuing SDS:** Technical Services Department
- **Creation Date:** 03/28/2003
- **Date of preparation/ last revision** 02/27/2014 / 4
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*
  - DOT: US Department of Transportation*
  - ACGIH: American Conference of Governmental Industrial Hygienists*
  - EINECS: European Inventory of Existing Commercial Chemical Substances*
  - ELINCS: European List of Notified Chemical Substances*
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)*
  - NFPA: National Fire Protection Association (USA)*
  - HMIS: Hazardous Materials Identification System (USA)*
  - LC50: Lethal concentration, 50 percent*
  - LD50: Lethal dose, 50 percent*
  - Flam. Liq. 2: Flammable liquids, Hazard Category 2*
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*
  - Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*
  - Repr. 2: Reproductive toxicity, Hazard Category 2*
  - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*
  - STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*
  - Asp. Tox. 1: Aspiration hazard, Hazard Category 1*

*End of SDS*

## \* Section 1. Identification

### Product identifier

- **Trade name:** RPI Low VOC Membrane Cleaner
- **Articlenumber:** 121
- **Relevant identified uses of the substance or mixture:** Construction

### Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**  
Roofing Products International, Inc.  
57460 Dewitt St.  
Elkhart, IN 46517-1078
- **Information department:** Technical Services Department

### Emergency telephone number

**ChemTrec:** UNITED STATES 1(800)424-9300 INTERNATIONAL 703-527-3887

## \* Section 2. Hazard(s) identification

### Classification of the substance or mixture



GHS02 Flame

- **Flam. Liq. 2 H225** Highly flammable liquid and vapor.



GHS08 Health hazard

- **Repr. 2 H361** Suspected of damaging fertility or the unborn child.
- **STOT SE 3 H373** May cause damage to organs through single exposure.
- **Asp. Tox. 1 H304** May be fatal if swallowed and enters airways.



GHS07

- **Skin Irrit. 2 H315** Causes skin irritation.
- **Eye Irrit. 2A H319** Causes serious eye irritation.
- **STOT SE 3 H336** May cause drowsiness or dizziness.

### Label elements

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

### Hazard pictograms



GHS02



GHS07



GHS08

**Signal word: Danger**

**Tradename: RPI Low VOC Membrane Cleaner**

*(Contd. of page 1)*

**Hazard statements**

- Highly flammable liquid and vapor.*
- Causes skin irritation.*
- Causes serious eye irritation.*
- Suspected of damaging fertility or the unborn child.*
- May cause drowsiness or dizziness.*
- May cause damage to organs through a single exposure. May be fatal if swallowed and enters airways.*

**Precautionary statements**

- If medical advice is needed, have product container or label at hand.*
- Keep out of reach of children.*
- Read label before use. Wear protective gloves and eye safety glasses.*
- Keep away from heat/sparks/open flames. Do not smoke when handling or using material. Do not use in areas without proper ventilation. While using product, keep container tightly closed.*
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.*
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*
- IF IN EYES: Rinse cautiously with clean water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.*
- Store in secure area.*
- Dispose of contents/container in accordance with local/regional/national/international regulations.*

**Classification system**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



**Other hazards**

**Results of PBT and vPvB assessment:**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**\* Section 3. Composition/information on ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

Components	CAS Number	% by Weight
acetone	67-64-1	68 %
Distillates (petroleum), solvent-refined light (textile spirits)	64742-47-8	32 %
Contains	C9-C15 Cycloalkanes	60-100%
	C9-C15 Alkanes	15-40%

**\* Section 4. First-aid measures**

**Description of first aid measures**

- **General information:**  
*Symptoms of poisoning may occur after several hours; therefore medical observation for at least 48 hours after the accident is recommended.*

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- **After inhalation:**  
Remove victim to area off fresh air and seek medical attention. Supply fresh air. If required, provide artificial respiration. If breathing is difficult, give oxygen. Consult doctor if symptoms persist.  
Call a doctor immediately.
- **Afterskin contact:**  
Remove contaminated clothing and immediately wash affected area with soap and water. Rinse affected area with clean water for 15 minutes. Wash clothing before reuse. Contact a physician.
- **After eye contact:**  
Rinse opened eye for several minutes under clean running water. Contact a physician.
- **After swallowing:**  
Seek medical treatment immediately. Call a poison center or physician. Remove any dentures. Wash out mouth with clean water. Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Aspiration hazard if swallowed, product can enter lungs and cause damage. Do Not Induce Vomiting. If vomiting occurs the head should be kept low to prevent vomit from entering lungs.  
If unconscious, place in recovery position and get immediate medical attention. Do not give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing to provide unrestricted breathing.

**Most important symptoms and effects, both acute and delayed**

- **Eye Contact:**  
Causes serious eye injury.
- **Inhalation:**  
Harmful if inhaled. Can cause central nervous system depression. May cause drowsiness and dizziness.
- **Skin Contact:**  
Causes skin irritation.
- **Ingestion:**  
Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.  
Irritating to mouth, throat, and stomach.

**Over-exposure signs and symptoms**

**Eye Contact**

- **Adverse symptoms may include the following.** Pain or irritation. Redness and watering of the eyes.

**Inhalation**

- **Adverse symptoms may include the following.** Nausea or vomiting, headache with drowsiness or fatigue.  
Dizziness with disorientation and vertigo. Unconsciousness.

**Skin Contact**

- **Adverse symptoms include the following.** Irritation and redness.

**Ingestion**

- **Adverse symptoms may include the following.** Nausea and/or vomiting.

**Indication of any immediate medical attention and special treatment needed**

**Information for Physician**

If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

- **Specific treatments:**  
Treat symptomatically and supportively.
- **Protection of first aiders:**  
No action shall be taken involving any personal risk or without suitable training. If it is suspected that gas or vapor is still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth to mouth resuscitation.

(Contd. on page 4)

Tradename: *RPI Low VOC Membrane Cleaner*

(Contd. of page 3)

\* **Section 5. Fire-fighting measures**

**Extinguishing media**

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water and water with full jet

**Advice for firefighters**

- **Protective equipment:**  
Mouth respiratory protective device.  
Protective clothing and respiratory protective device.

\* **Section 6. Accidental release measures**

**Personal precautions, equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Prevent seepage into sewage system, workpits and cellars.  
Do not allow product to reach sewage system or any water course.  
Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste in accordance with federal state and local regulations.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents.

**Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

\* **Section 7. Handling and storage**

- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Wear personal protective equipment.  
Open and handle receptacle with care.  
Do not use air pressure to unload containers.  
Keep container tightly closed.  
Do not breath vapors or spray mist.
- **Information about protection against explosions and fires:**  
Use explosion proof equipment. Keep away from ignition sources. Do not smoke. Bond and ground containers.  
Although bonded and grounded, static electricity may accumulate. Use only non-sparking tools.  
Protect against electrostatic charges.  
Keep respiratory protective device available

**Advice on general occupational hygiene**

Do not eat, drink, or smoke in areas where this product is being handled, stored, or processed.  
Workers should wash face and hands before eating, drinking or smoking.  
Remove protective clothing and equipment before entering eating areas.

**Conditions for safe storage, including any incompatibilities**

Store in a segregated, approved area in accordance with local regulations.  
Store in secured area away from imcompatable materials and food and drink.  
Eliminate all ignition sources. Separate from oxidizing materials.  
Material must be stored in original containers tightly closed and sealed. Store containers upright to prevent spillage.  
Do not store in unlabeled containers.

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**Trade name: RPI Low VOC Membrane Cleaner**

*(Contd. of page 4)*

**\* Section 8. Exposure controls/personal protection**

**Control parameters**

**Components with limit values that require monitoring at the workplace**

Name of Ingredients	CAS Number	Exposure Limits
Acetone	67-64-1	ACGIH 500 ppm TWA ACGIH 750 ppm TWA STEL NIOSH 250 ppm PEL OSHA 750 ppm TWA OSHA 1000 TWA STEL
C9-C15 Cycloalkanes Form: methylcyclohexane	Mixture	ACGIH 400 TWA 8 hours
Mineral Spirits 66/3	Mixture	ACGIH 212 ppm TLV 8 hours

**Notes:**

The TLV for the hydrocarbon solvent is based on the procedure described in Appendix H ("Reciprocal Calculations Method for Certain Refined Hydrocarbon Solvent Vapors") of the ACGIH TLVs and BEIs guidelines. The GGV mixture (ACHIH TLV) is based on Column B (McKee et al., 2005) of Table 1 ("Group Guidance Values") of Appendix H.

**Exposure controls**

**Personal protective equipment (see listings below)**

**General protection and hygiene**

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Store protective clothing separately.

• **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

• **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance and the preparation. Check with glove manufacturer for data regarding chemical resistance.

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.

• **Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• **Eye protection:**



Safety glasses

Safety glasses with side shields should be worn. If splashes are likely to occur, wear goggles or a full face mask. Do not wear contact lenses. Eye wash stations and safety showers should be close to workstation.

• **Skin and body protection:**

Wear solvent resistant apron and boots. Material should be antistatic and flame resistant.

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- **Respiratory protection:**  
*In the case of vapor formation, use a respirator with an approved filter.  
For rescue and maintenance work in storage tanks or areas with inadequate ventilation, use a self-contained breathing apparatus.*
- **General protective and hygienic measures:**  
*Keep away from foodstuffs and beverages.  
Keep work cloths away from food and beverages.  
Wash hands before breaks and at the end of work.  
Avoid contact with eyes and skin.*

**\* Section 9. Physical and chemical properties**

**Information on basic physical and chemical properties**

**General Information**

**Appearance**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Sweet, pungent to hydrocarbon solvent
<b>Odor Threshold:</b>	Not Determined
<b>pH-value:</b>	Not Available

**Change in condition**

• <b>Melting point/Melting Range</b>	-94 to -58°C (-137- -72°F)
• <b>Boiling point/Boiling Range</b>	98°C (208°F)
• <b>Flash point:</b>	-17 to -42°C (1-108°F)
• <b>Ignition temperature:</b>	236.0 °C (457 °F)
• <b>Auto igniting:</b>	Not determined
• <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**Explosion limits**

<b>Lower:</b>	.6 Vol %
<b>Upper:</b>	12.8 Vol %
• <b>Vapor pressure at 20 °C (68 °F):</b>	241.0 hPa (166 mm Hg)
• <b>Relative density:</b>	0.84
• <b>Vapor density:</b>	Not determined
• <b>Evaporation rate:</b>	Not determined
• <b>Partition coefficient</b>	
<b>(n-octanol/water: gravity:</b>	Not determined
<b>(n-octanol/water: gravity:</b>	Not determined

• <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
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**Viscosity**

• <b>Dynamic:</b>	Not determined
• <b>Kinematic:</b>	Not determined
• <b>Organic solvents:</b>	100%
• <b>VOC content:</b>	Not determined

**Other information**                      *No further relevant information available.*



**Trade name: RPI Low VOC Membrane Cleaner**

*(Contd. of page 6)*

**\* Section 10. Stability and reactivity**

**• Reactivity:**

*Not expected to be explosive, self-reactive or self-heating under normal conditions.*

**Chemical stability**

**• Thermal decomposition/conditions to be avoided:**

*No decomposition if used according to specifications.*

**• Possibility of hazardous reactions:**

*Strong oxidizers, acids and bases.*

**• Conditions to avoid:**

*Heat, open flames, and sparks.*

*Keep away from direct sunlight.*

*Do not allow vapor to accumulate in low or confined areas*

*Do not pressurize, cut, weld, braze, drill, or grind on containers.*

*Situations conducive to the build up of static electricity.*

**• Incompatible materials:**

*Acids, aldehydes, alkalis, amines, ammonia, oxidizing agents, reducing agents, or chlorine compounds.*

*May form explosive mixtures with chromic anhydride, chromyl alcohol, hexachloromelamine, hydrogen peroxide, permonosulfuric acid, potassium tertbutoxide and thioglycol.*

**• Hazardous decomposition products:**

*No dangerous decomposition products known under normal conditions of storage and use.*

**\* Section 11. Toxicological information**

**Information on toxicological effects**

*Acute toxicity*

**LD/LC50 values that are relevant for classification**

<i>67-64-1 acetone</i>		
<i>Oral</i>	<i>LD50</i>	<i>5000 mg/kg (rat)</i>
<i>Dermal</i>	<i>LD50</i>	<i>&gt;7426 mg/kg (guinea pig)</i>
<i>Inhalative</i>	<i>LC50/4 h</i>	<i>32000 ppm (rat)</i>

*Skin irritation*

*Mild irritant*

*24h rabbit*

*Eye irritation*

*Irritating*

*Draize Test rabbit*

*Repeated dose NOEL 19000 ppm rat.*

*Note: 8 week inhalation 5 days/week for 8 weeks, slight reduced weight gain compared to controls.*

*Repeated dose NOEL 100 mg/kg rat.*

*Note: 90 day oral toxicity study increased liver and kidney weights.*

*C9-15 Alkanes*

*Acute Toxicity*

*Summary: In animal studies utilizing mineral spirits containing up to 22 aromatics indicated that the acute central nervous system effects are reversible. Based on existing animal studies, the potential for persistent effects is not clear.*

**Irritation/corrosion**

**• Skin**

*Primary dermal irritation studies (four hour exposure) in rabbits utilizing mineral spirits containing less than 2% aromatics resulted in slight to moderate skin irritation. In humans, mineral spirits have produced slight to moderate skin irritation particularly when evaporation from the skin is prevented.*

**Tradename: RPI Low VOC Membrane Cleaner**

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- **Eyes**

*No additional information*

**Respiratory**

*Animal studies have demonstrated that mineral spirits produced mild respiratory tract irritation at elevated concentrations. Also, sensory respiratory tract irritation was evident by reduced breathing rates in the test animals in certain studies.*

**Sensitization**

- **Skin**

*In animal studies utilizing mineral spirits containing up to 18% aromatics, skin sensitization is not evident.*

**Mutagenicity**

*Conclusion/summary: In vitro and invitro studies on mineral spirits containing up to 22% aromatic indicate that these products are not genotoxic.*

**Carcinogenicity**

*Conclusion/summary: The National Toxicology Program (NTP) conducted two-year carcinogenicity studies in rats and mice with Stoddard Solvent IIC (less than 2% aromatics). The studies indicated that there was some evidence of carcinogenic activity in male rats (adrenal medulla neoplasms and renal tubule adenoma) but no evidence of carcinogenic activity in female mice. A low carcinogenic potential is suggested by a lack of genotoxic potential identified in vivo and invitro genetic toxicity tests (with and without metabolic activation)*

**Reproductive Toxicity**

*Conclusion/summary: There were no treatment-related effects on pregnancy rate, mortality or gross post mortem observations in animal studies utilizing mineral spirits containing less than 2% aromatics.*

**Teratogenicity**

*Conclusion/summary: There were no treatment-related effects on pregnancy rate, mortality or gross post mortem observations in animal studies utilizing mineral spirits containing less than 2% aromatics.*

**Specific target organ toxicity (single exposure)**

NAME	CATEGORY	ROUTE OF EXPOSURE	TARGET ORGANS
C9-C15 Cycloalkanes	3	Not applicable	Narcotic effects
C9-C15 Alkanes	3	Not applicable	Narcotic effects

**Specific target organ toxicity (repeated exposure)**

*Not available*

**Aspiration Hazard**

NAME	RESULT
C9-C15 Cycloalkanes	Aspiration Hazard - Category 1
C9-C15 Alkanes	Aspiration Hazard - Category 1

**Potential acute health effects**

- **Eye contact:**  
*Causes serious eye irritation*
- **Inhalation:**  
*Harmful if inhaled. Can cause nervous (CNS) depression. May cause drowsiness and dizziness.*
- **Skin contact:**  
*Causes skin irritation.*
- **Ingestion:**  
*Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.*

**Symptoms related to the physical, chemical and toxicological characteristics**

- **Eye contact:**  
*Adverse symptoms may include the following: Pain or irritation, watering, redness.*
- **Inhalation:**  
*Adverse symptoms may include the following:*

*(Contd. on page 9)*

Tradename: *RPI Low VOC Membrane Cleaner*

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*Nausea or vomiting, headache, drowsiness/fatigue.*

- **Skin contact**

*Adverse symptoms may include the following:*

*Irritation and redness.*

- **Ingestion**

*Adverse symptoms may include the following:*

*Nausea or vomiting.*

**Potential chronic health effects**

- **General**

*No known significant effects or critical hazards.*

- **Carcinogenicity**

*No known significant effects or critical hazards.*

- **Mutagenicity**

*No known significant effects or critical hazards.*

- **Teratogenicity**

*No known significant effects or critical hazards.*

- **Developmental effects**

*No known significant effects or critical hazards.*

- **Fertility effects**

*No known significant effects or critical hazards.*

\* **Section 12. Ecological information**

**Toxicity**

- **Acetone**

- **Toxicity to fish:** *Species: Oncorhynchus mykiss (rainbow trout)*

*Static test LC50: 5,540mg/l*

*Exposure time: 96 h*

*Species: Lepomis macrochirus (bluegill sunfish)*

*Static test: LC50: 8,300 mg/l*

*Exposure time: 96 h*

**Toxicity to daphnia**

- **Invertebrates:** *Species: Daphnia magna (Water flea)*

*Static test: LC50: 12,600-12,700 mg/l*

*Exposure time: 48 h*

- **Toxicity to algae:** *Species: Chlorella pyrenoidosa*

*Static test: EC50: 3,020 mg/l*

*Exposure time: 14 d*

- **Toxicity to bacteria:** *Species: Photobacterium phosphoreum*

*Static test: EC50: 14,500 mg/l*

*Exposure time: 15 min.*

**Elimination information (persistence and degradability)**

- **Biodegradability :** *Anaerobic Result: Readily biodegradable*

*Value: 78%*

*Method: OECD 301 D*

**C9-C15 Cycloalkanes and Alkanes**

*No known significant effects or critical hazards. No other information available.*

(Contd. on page 10)

**Trade name:** *RPI Low VOC Membrane Cleaner*

*(Contd. of page 9)*

**\* Section 13. Disposal considerations**

**Waste treatment methods**

**• Recommendation:**

*The generation of waste should be avoided or minimized whenever and wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental and waste disposal legislation and all local, regional, and federal authority requirements. Dispose of surplus and non-recyclable products thru a licensed waste disposal contractor. Waste should not be allowed to enter streams, lakes, sewer systems, or other open waterways. Waste packaging should be recycled. This material and its containers that have not been cleaned or rinsed out may contain product residues or vapors that are highly flammable and may explode. Do not cut, weld, or grind used containers. Do not dispose with household garbage. Any contaminated cleaning materials used with this product must be properly disposed and treated as flammable materials unless they have been thoroughly washed and clean of any product or residue. Do not allow product to reach sewage system.*

**Uncleaned packagings**

**• Recommendation:** *Disposal must be made in compliance with local, state, regional, and federal regulations.*

**\* Section 14. Transportation information**

**UN-Number**

**• DOT, ADR, IMDG, IATA** *UN993, NOS (Acetone, Petroleum)*

**UN proper shipping name**

**• DOT** *Flammable liquid, NOS (Acetone, Petroleum)*  
**• ADR** *Not determined*  
**• IMDG, IATA** *Not determined*

**Transport hazard class(es)**

**• DOT**



**• Class** *3 Flammable liquids.*  
**• Label** *3*  
**• ADR** *Not determined*  
**• IMDG<IATA** *Not determined*  
**• Class** *Not determined*  
**• Label** *Not determined*

**Packing group**

**• DOT, ADR, IMDG, IATA** *II*

**\* Section 15. Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**• TSCA 12(b) one-time export:**

*Nonane, all isomers*

**• United States inventory (TSCA 8b):**

*All components are listed or exempted.*

**• Clean Water Act (CWA) 307:**

*(Contd. on page 11)*

Tradename: *RPI Low VOC Membrane Cleaner*

*(Contd. of page 10)*

**\* Section 15. Regulatory information**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

• **TSCA 12(b) one-time export:**

*Nonane, all isomers*

• **United States inventory (TSCA 8b):**

*All components are listed or exempted.*

• **Clean Water Act (CWA) 307:**

*Toluene, Ethylbenzene, Naphthalene, Benzene*

• **Clean Water Act (CWA) 311:**

*Toluene, Ethylbenzene, Naphthalene, Benzene*

*This material contains a material classified as oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on water of the united States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.*

**Section 302/304**

**Composition/information on ingredients**

*SARA 304: Not Applicable*

**SARA 311/312**

• **Classification:**

*Fire hazard. Immediate (acute) health hazard.*

**Compsition/information on ingredients**

<i>Name</i>	<i>Fire Hazard</i>	<i>Sudden Release of pressure</i>	<i>Reactive</i>	<i>Immediate (acute) health hazard</i>	<i>Delayed (chronic) health hazard</i>
<i>Acetone</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>
<i>C9-C15</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>
<i>Cycloalkanes C9-C15 Alkanes</i>	<i>yes</i>	<i>no</i>	<i>no</i>	<i>yes</i>	<i>no</i>

**State Regulations**

**Massachusetts**

*The following components are listed: Acetone, Benxene, Acetaldehyde, Nonane.*

**New York**

*None of components are listed.*

**New Jersey**

*The following components are listed: Acetone, Nonane.*

**Pennsylvania**

*The following components are listed: Acetone, Benzene, Nonane.*

<i>California Prop. 65 Ingredient name</i>	<i>%</i>	<i>Cancer</i>	<i>Reproductive</i>	<i>No significant risk level</i>	<i>Maximum acceptable dose level</i>
<i>Toluene</i>	<i>&lt;0.01</i>	<i>No</i>	<i>Yes</i>	<i>No</i>	<i>7000 ug/day (ingestion)</i>
<i>Cumene</i>	<i>&lt;0.01</i>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Benzene</i>	<i>&lt;0.0001</i>	<i>Yes</i>	<i>Yes</i>	<i>6.4 ug/day (ingestion) 13 ug/day (inhalation)</i>	<i>24 ug/day (ingestion) 49 ug/day (inhalation)</i>
<i>Ethylbenzene</i>	<i>&lt;0.0001</i>	<i>Yes</i>	<i>No</i>	<i>41 ug/day (ingestion) 54 ug/day (inhalation)</i>	<i>No</i>

**Tradename: RPI Low VOC Membrane Cleaner**

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<i>Naphthalene</i>	<i>&lt;0.0001</i>	<i>Yes</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
<i>Acetaldehyde</i>	<i>N/A</i>	<i>Yes</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>

**\* Section 16. Other information**

*Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.*

- **Department issuing SDS: Technical Services Department**

- **Creation Date:** 03/28/2003

- **Date of preparation/ last revision:** 02/27/2014 / 4

- **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*DOT: US Department of Transportation*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

*Asp. Tox. 1: Aspiration hazard, Hazard Category 1*

*End of SDS*

**\* Section 1. Identification**

**Product identifier:** Single -Ply Membrane Bonding Adhesive

- **Trade name:** Royal Edge Universal Solvent Based Bonding Adhesive
- **Product Code:** BASU5G
- **Relevant identified uses of the substance or mixture:** Contact adhesive used for adhering single-ply membranes to approved insulations, substrates and other surfaces in low slope roofing applications. Not to be used indoors or in unventilated confined areas.

**Details of the supplier of the safety data sheet Manufacturer/Supplier**

Roofing Products International, Inc.

57460 Dewitt St.

Elkhart, IN 46517-1078

**Emergency telephone number:** ChemTrec: UNITED STATES 1(800)424-9300

**\* Section 2. Hazard(s) Identification****Classification of the substance or mixture**

GHS02 Flame

- Flam. Liq. 2                      H225 Highly flammable liquid and vapor.



GHS08 Health hazard

- Repr. 2                              H361 Suspected of damaging fertility or the unborn child.
- STOT RE 2                        H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

- Skin Irrit. 2                        H315 Causes skin irritation.
- Eye Irrit. 2A                       H319 Causes serious eye irritation.
- STOT SE 3                         H336 May cause drowsiness or dizziness.

**Label elements**

- **Hazard pictograms**
- **GHS label elements:** The product is classified and labeled according to the Globally Harmonized System (GHS)



GHS02



GHS07



GHS08

**Signal word: DANGER**

- **Hazard statements:**  
Highly flammable liquid and vapor.  
Causes skin irritation.  
Causes serious eye irritation.  
Suspected of damaging fertility or the unborn child.

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May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure.

## Precautionary statements

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep away from heat/sparks/open flames. Do not smoke. Do not use in areas without proper ventilation. Use explosion-proof electrical/ventilating/lighting/equipment.

IF ON SKIN (or hair): Remove/Takeoff immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Store in secured area.

Dispose of contents/container in accordance with local/regional/national/international regulations.

## Classification system

- NFPA ratings (scale 0 - 4)



Health = 2

Fire = 3

Reactivity = 0

- HMIS-ratings (scale 0 - 4)



Health = \*2

Fire = 3

Physical Hazard = 0

## Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

## \* Section 3. Composition/Information on Ingredients

- Chemical characterization: Mixtures

- Description:

Mixture of the substances listed below with nonhazardous additions.

### Dangerous components

CAS	Components	
64741-84-0	Naphtha (petroleum), solvent-refined light (textile spirits)	25-50%
108-88-3	toluene	25-50%
67-64-1	acetone	5-20%

## \* Section 4. First-Aid Measures

### Description of first aid measures

- After inhalation:

Remove victim to area of fresh air and maintain comfortable breathing position. Supply fresh air or oxygen. If necessary, provide artificial respiration by trained personnel. Contact physician. In case of unconsciousness, place patient in a stable side position for transportation.

- After skin contact:

Remove with rubbing alcohol and immediately wash with water and soap and rinse thoroughly.

- After eye contact: Check for and remove contact lenses. Rinse opened eye for 20 minutes under clean, running water. Call a physician immediately.

- After swallowing:

Seek immediate medical treatment. Remove dentures. Do not induce vomiting. Maintain an open airway.

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## Information for doctor

**Most important symptoms and effects, both acute and delayed**

### Symptoms and Potential Acute Effects

- **Eye Contact:**  
Causes serious eye irritation.
- **Inhalation:**  
Irritation to lungs and mucous membranes.
- **Skin Contact:**  
Causes skin irritation.
- **Ingestion:**  
Irritating to mouth, throat, and lungs.

### Over-exposure Symptoms

- **Eye Contact:**  
Pain, irritation, watering, and redness.
- **Inhalation:**  
Dizziness, nausea or vomiting. Sensitive individuals may experience nose or throat irritation with prolonged exposure to fumes or vapors.
- **Skin Contact:**  
Irritation and redness.
- **Ingestion:**  
Dizziness, nausea or vomiting.

### Indication of any immediate medical attention and special treatment needed

Contact poison treatment specialist if large quantities are inhaled or ingested.

**Specific Treatment:** No Specific treatment.

## \* Section 5. Fire-Fighting Measures

### Extinguishing media

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, sand, extinguishing powder, or foam. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**  
Water.

### Advice for firefighters

- **Hazardous Thermal Decomposition Products:**  
Toxic gases or vapors such as Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, Sulfur Dioxide, and partially burned Carbon.
- **Protective equipment:**  
Firefighters should wear appropriate protective equipment and self-contained breathing apparatus.

## \* Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

- **Environmental precautions:**  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste in accordance with federal state and local regulations.
- **Small Spills:**  
Absorb using inert material. Use non-sparking tools. Transfer the material into secure containers for proper disposal. Wear the appropriate protective clothing and equipment. Ensure adequate ventilation.
- **Large Spills:**  
Same as small spills.

### Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## \* Section 7. Handling and Storage

### Handling

- **Precautions for safe handling**

Ensure proper air ventilation/exhaust at the workplace. Open and handle receptacle with care. Under normal handling conditions, protective gloves, glasses, and clothing are adequate.

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke. Protect against electrostatic charges by grounding objects prone to static electricity. Keep work area free from open flames, sparks, and hot metal surfaces. Use non sparking tools and explosion proof electrical equipment. Do not open containers in confined areas that restrict adequate ventilation.

### Conditions for safe storage, including any incompatibilities

#### Storage

- **Requirements to be met by storerooms and receptacles:**

Store in a cool dry location away from direct heat. Store in unopened original containers.

- **Information about storage incompatibilities in one common storage facility:**

Store as flammable liquid.

Store away from oxidizing agents.

- **Further information about storage conditions:**

Keep receptacle tightly sealed.

- **Specific end use(s)**

No further relevant information available.

## \* Section 8. Exposure Controls/Personal Protection

- **Additional information about design of technical systems:**

No further data; see item 7.

### Control parameters

#### Components with limit values that require monitoring at the workplace

##### 108-88-3 toluene (25-50%)

PEL	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
TLV	Long-term value: 75 mg/m <sup>3</sup> , 20 ppm BEI

##### 67-64-1 acetone (5-20%)

PEL	Long-term value: 2400 mg/m <sup>3</sup> , 1000 ppm
REL	Long-term value: 590 mg/m <sup>3</sup> , 250 ppm
TLV	Short-term value: (1782) NIC-1187 mg/m <sup>3</sup> , (750) NIC-500 ppm Long-term value: (1188) NIC-475 mg/m <sup>3</sup> , (500) NIC-200 ppm BEI

#### Ingredients with biological limit values

##### 108-88-3 toluene (25-50%)

BEI	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene
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	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene  0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)
<b>67-64-1 acetone (5-20%)</b>	
BEI	50 mg/L Medium: urine Time: end of shift Parameter: Acetone (nonspecific)

- **Additional information:**

The lists that were valid during the creation were used as basis.

### Exposure controls

#### Personal protective equipment (see listings below)

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Store protective clothing separately

- **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

### Protection of hands



Protective gloves

The glove material must be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and therefore has to be checked prior to the application.

- **Penetration time of glove material**

The glove manufacturer must determine and adhere to the exact break through time of the protective gloves.

### Eye protection



Safety glasses with side shields.

### Body protection

Protective work clothing should be worn. Where static electricity is a concern, anti-static boots and gloves may be worn.

- **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

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## \* Section 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

#### General Information

- **Appearance**
- **Form:** Liquid
- **Color:** Yellow
- **Odor:** Strong aromatic odor

#### Change in condition

- **Melting point:** Undetermined.
- **Boiling point:** 98 °C (208 °F)
- **Flash point:** -18 °C (-0 °F)
- **Ignition temperature:** 240.0 °C (464 °F)
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

#### Flammable limits

- **Lower:** 1.2 Vol %
- **Upper:** 13.0 Vol %
- **Vapor pressure at 20 °C (68 °F):** 233.0 hPa (175 mm Hg)
- **Specific gravity:** 0.825
- **Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

#### Solvent content

- **Organic solvents:** 78.0 %
- **Solids content:** 22.0 %

#### Other information

VOC = 5.17 LBS/GAL  
WEIGHTPER GALLON= 6.98 LBS  
NOTICE THIS PRODUCT DOES NOT COMPLY WITH THE  
REQUIREMENT OF RULE 1168 OF CALIFORNIA'S SOUTH  
COAST AIR QUALITYMANAGEMENT DISTRICT - 637 G/L  
SCAQMD RULE 1168 METHOD

## \* Section 10. Stability and Reactivity

### Reactivity

#### Chemical stability

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**  
Strong oxidizers, acids and bases.
- **Conditions to avoid:**  
No further relevant information available.
- **Incompatible materials:**  
No further relevant information available.
- **Hazardous decomposition products:**  
Oxides of carbon, nitrogen and hydrocarbons, hydrogen chloride (thermal degradation products).

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## \* Section 11. Toxicological Information

### Information on toxicological effects

- **Acute toxicity:**

### LD/LC50 values that are relevant for classification

#### 108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)

### Primary irritant effect

- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.

### Additional toxicological information

The product shows the following dangers according to internally approved calculation methods for preparations:

- Harmful
- Irritant

May cause reproductive harm.

### Carcinogenic categories

#### IARC (International Agency for Research on Cancer)

108-88-3 | toluene

3

#### NTP (National Toxicology Program)

None of the ingredients is listed.

#### OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

## \* Section 12. Ecological Information

### Toxicity

- **Aquatic toxicity:**  
No further relevant information available.
- **Persistence and degradability:**  
No further relevant information available.

### Behavior in environmental systems

- **Bioaccumulative potential:**  
No further relevant information available.
- **Mobility in soil:**  
No further relevant information available.

### Ecotoxicological effects

- **Remark:**  
Toxic for fish
- **Remark:**  
Toxic for fish and other aquatic organisms

### Additional ecological information

- **General notes:**  
At present there are no ecotoxicological assessments.

### Results of PBT and vPvB assessment

- **PBT:**  
Not applicable.
- **vPvB:**  
Not applicable.

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## Other adverse effects

No further relevant information available.

## \* Section 13. Disposal Considerations

### Waste treatment methods

- **Recommendation:**  
Must be specially treated adhering to official regulations.

### Uncleaned packagings

- **Recommendation:**  
Disposal must be made according to official regulations.

## \* Section 14. Transport Information

### UN-Number

- DOT, ADR, IMDG, IATA UN1133

### UN proper shipping name

- DOT, IMDG, IATA ADHESIVES 1133
- ADR ADHESIVES

- Transport hazard class(es)

### DOT



- Class 3 Flammable liquids.
- Label 3

### ADR, IMDG, IATA



- Class 3 Flammable liquids
- Label 3

### Packing group

- DOT, ADR, IMDG, IATA II

- Environmental hazards Not applicable.

- Special precautions for user Warning: Flammable liquids

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

- UN "Model Regulation" UN1133, ADHESIVES, 3, II

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## \* Section 15. Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

108-88-3 | toluene

- **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

### Proposition 65

#### Chemicals known to cause cancer

None of the ingredients is listed.

#### Chemicals known to cause reproductive toxicity

108-88-3 | toluene

#### (DSL) Canada Domestic Substance List

All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.

#### Carcinogen categories

##### EPA (Environmental Protection Agency)

108-88-3 | toluene

II

67-64-1 | acetone

I

##### TLV (Threshold Limit Value established by ACGIH)

108-88-3 | toluene

A4

67-64-1 | acetone

A4

##### MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

##### NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

#### National regulations

- **Water hazard class:**  
Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:**  
A Chemical Safety Assessment has not been carried out.

## \* Section 16. Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Roofing Products International, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Roofing Products International, Inc. or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- **Department issuing MSDS:** Technical Services Department.
- **Creation Date:** 08/12/2000
- **Date of preparation / last revision:** 03/21/2007

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- **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*

*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*

*Repr. 2: Reproductive toxicity, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

*STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2*

End of SDS