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# SAFETY DATA SHEET

# 1. Identification

Material name: TREMPLY TPO BONDING ADHESIVE 5 GL

Material: 423300 805

Recommended use and restriction on use

Recommended use: Adhesive Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S. Roofing 3735 Green Road Beachwood OH 44122 US

Contact person:EH&S DepartmentTelephone:216-292-5000

**Emergency telephone number:** 1-800-424-9300 (US); 1-613-996-6666 (Canada)

# 2. Hazard(s) identification

#### **Hazard Classification**

# **Physical Hazards**

Flammable liquids Category 2

#### **Health Hazards**

Skin Corrosion/Irritation

Serious Eye Damage/Eye Irritation

Germ Cell Mutagenicity

Category 2A

Category 1B

Carcinogenicity

Category 1B

Toxic to reproduction

Category 2

Specific Target Organ Toxicity 
Repeated Exposure

Category 1

# **Unknown toxicity - Health**

Acute toxicity, oral 22.57 %
Acute toxicity, dermal 22.72 %
Acute toxicity, inhalation, vapor 37.75 %
Acute toxicity, inhalation, dust or mist 100 %

#### **Environmental Hazards**

Acute hazards to the aquatic Category 3 environment

#### **Unknown toxicity - Environment**



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Acute hazards to the aquatic

24.15 %

environment

Chronic hazards to the aquatic

100 %

environment

#### **Label Elements**

#### **Hazard Symbol:**



Signal Word: Danger

**Hazard Statement:** Highly flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

May cause drowsiness or dizziness.

Suspected of damaging fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure if

inhaled.

Harmful to aquatic life.

Precautionary Statements

**Prevention:** Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking. Keep container tightly closed. Ground and bond

container and receiving equipment. Use explosion-proof

[electrical/ventilating/lighting/...] equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective

equipment as required. Avoid release to the environment.

**Response:** IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. If

skin irritation occurs: Get medical advice/attention. IF exposed or

concerned: Get medical advice/attention. Specific treatment (see on this label). Take off contaminated clothing. In case of fire: Use... to extinguish.

Storage: Store in a well-ventilated place. Keep cool. Store locked up.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal

facility in accordance with applicable laws and regulations, and product

characteristics at time of disposal.



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Hazard(s) not otherwise classified (HNOC):

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and

vapor. May cause flash fire or explosion.

# 3. Composition/information on ingredients

#### **Mixtures**

| Chemical Identity                           | CAS number | Content in percent (%)* |
|---|------------|-------------------------|
| Toluene                                     | 108-88-3   | 25 - <50%               |
| Acetone                                     | 67-64-1    | 20 - <50%               |
| Hexane                                      | 110-54-3   | 10 - <20%               |
| Aliphatic Naphtha (Light aliphatic naphtha) | 64742-89-8 | 1 - <5%                 |
| Methylcyclopentane                          | 96-37-7    | 1 - <5%                 |
| Ethylbenzene                                | 100-41-4   | 0.1 - <1%               |

<sup>\*</sup> All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

#### 4. First-aid measures

Ingestion: Call a POISON CENTRE/doctor if you feel unwell. Rinse mouth.

**Inhalation:** Move to fresh air.

Skin Contact: Take off immediately all contaminated clothing. Immediately flush with

plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical

attention.

**Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do,

remove contact lenses. Get medical attention.

Most important symptoms/effects, acute and delayed

Symptoms: Respiratory tract irritation. Prolonged or repeated contact with skin may

cause redness, itching, irritation and eczema/chapping.

Indication of immediate medical attention and special treatment needed

**Treatment:** Symptoms may be delayed.

#### 5. Fire-fighting measures

**General Fire Hazards:** Use water spray to keep fire-exposed containers cool. Water may be

ineffective in fighting the fire. Fight fire from a protected location. Move

containers from fire area if you can do so without risk.



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#### Suitable (and unsuitable) extinguishing media

Suitable extinguishing

media:

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing

media:

Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from

the chemical:

Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations.

#### Special protective equipment and precautions for firefighters

Special fire fighting

procedures:

No data available.

Special protective equipment

for fire-fighters:

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in

enclosed spaces, SCBA.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning

up:

Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

In the event of a spill or accidental release, notify relevant authorities in

accordance with all applicable regulations.

**Environmental Precautions:** 

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.

# 7. Handling and storage

**Notification Procedures:** 

Precautions for safe handling:

Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes. Wash hands thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Take precautionary measures against static discharges. Avoid contact with skin. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.



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Conditions for safe storage, including any incompatibilities:

Store locked up. Store in a well-ventilated place. Store in a cool place.

# 8. Exposure controls/personal protection

# **Control Parameters**

# **Occupational Exposure Limits**

| Chemical Identity                           | Туре         | Exposure Limit Values | Source   |
|---|--------------|-----------------------|--|
| Toluene                                     | TWA          | 20 ppm                | US. ACGIH Threshold Limit Values (2011)  |
|   | TWA          | 200 ppm               | US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)                                |
|   | Ceiling      | 300 ppm               | US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)                                |
|   | MAX.<br>CONC | 500 ppm               | US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)                                |
| Acetone                                     | TWA          | 250 ppm               | US. ACGIH Threshold Limit Values (03 2015)                                     |
|   | STEL         | 500 ppm               | US. ACGIH Threshold Limit Values (03 2015)                                     |
|   | PEL          | 1,000 ppm 2,400 mg/m3 | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (02 2006) |
| Hexane                                      | TWA          | 50 ppm                | US. ACGIH Threshold Limit Values (2011)  |
|   | PEL          | 500 ppm 1,800 mg/m3   | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (02 2006) |
| Aliphatic Naphtha (Light aliphatic naphtha) | PEL          | 100 ppm 400 mg/m3     | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (03 2016) |
| Ethylbenzene                                | TWA          | 20 ppm                | US. ACGIH Threshold Limit Values (2011)  |
|   | PEL          | 100 ppm 435 mg/m3     | US. OSHA Table Z-1 Limits for Air<br>Contaminants (29 CFR 1910.1000) (02 2006) |

| Chemical name | Туре | Exposure Limit Valu | ues   | Source  |
|---------------|------|---------------------|-------|---|
| Toluene       | TWA  | 20 ppm              |       | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Toluene       | TWA  | 20 ppm              |       | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)  |
| Toluene       | TWA  | 50 ppm 188          | mg/m3 | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |
| Acetone       | STEL | 500 ppm             |       | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|               | TWA  | 250 ppm             |       | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Acetone       | TWA  | 500 ppm             |       | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)  |
|               | STEL | 750 ppm             |       | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)  |
| Acetone       | STEL | 1,000 ppm 2,380     | mg/m3 | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |
|               | TWA  | 500 ppm 1,190       | mg/m3 | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |



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| Hexane                                      | TWA     | 20 ppm  |             | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|---|---------|---------|-------------|---|
| Hexane                                      | TWA     | 50 ppm  |             | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)  |
| Hexane                                      | TWA     | 50 ppm  | 176 mg/m3   | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |
| Aliphatic Naphtha (Light aliphatic naphtha) | TWA     | 400 ppm | 1,590 mg/m3 | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (11 2011)  |
| Ethylbenzene                                | TWA     | 20 ppm  |             | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011) |
| Ethylbenzene                                | TWA     | 20 ppm  |             | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)  |
| Ethylbenzene                                | TWA     | 100 ppm | 434 mg/m3   | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |
|   | STEL    | 125 ppm | 543 mg/m3   | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |
| Benzene                                     | STEL    | 2.5 ppm |             | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|   | TWA     | 0.5 ppm |             | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Benzene                                     | TWA     | 0.5 ppm |             | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)  |
|   | STEL    | 2.5 ppm |             | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)  |
| Benzene                                     | TWA     | 1 ppm   | 3 mg/m3     | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |
|   | STEL    | 5 ppm   | 15.5 mg/m3  | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |
| Chloroprene                                 | TWA     | 10 ppm  |             | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Chloroprene                                 | TWA     | 10 ppm  |             | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)  |
| Chloroprene                                 | TWA     | 10 ppm  | 36 mg/m3    | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |
| Formaldehyde                                | TWA     | 0.3 ppm |             | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
|   | CEILING | 1 ppm   |             | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Formaldehyde                                | STEL    | 1 ppm   |             | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)  |
|   | CEV     | 1.5 ppm |             | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)  |



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| Formaldehyde                              | CEILING | 2 ppm 3 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)  |
|---|---------|---------------|---|
| Cadmium oxide - Respirable.<br>- as Cd    | TWA     | 0.002 mg/m3   | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Cadmium oxide - as Cd                     | TWA     | 0.01 mg/m3    | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Cadmium oxide - as Cd                     | TWA     | 0.01 mg/m3    | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)  |
| Cadmium oxide - Respirable fraction as Cd | TWA     | 0.002 mg/m3   | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)  |
| Cadmium oxide - as Cd                     | TWA     | 0.025 mg/m3   | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |
| Lead oxide - as Pb                        | TWA     | 0.05 mg/m3    | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Lead oxide - as Pb                        | TWA     | 0.05 mg/m3    | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)  |
| Lead oxide - as Pb                        | TWA     | 0.05 mg/m3    | Canada. Quebec OELs. (Ministry of Labor -<br>Regulation Respecting the Quality of the Work<br>Environment) (12 2008)  |

**Biological Limit Values** 

| Chemical Identity  | <b>Exposure Limit Values</b>   | Source              |  |
|--|--------------------------------|---------------------|--|
| Toluene (o-Cresol, with hydrolysis: Sampling time: End of shift.)                                      | 0.3 mg/g (Creatinine in urine) | ACGIH BEI (03 2013) |  |
| Toluene (toluene: Sampling time: Prior to last shift of work week.)                                    | 0.02 mg/l (Blood)              | ACGIH BEI (03 2013) |  |
| Toluene (toluene: Sampling time: End of shift.)  | 0.03 mg/l (Urine)              | ACGIH BEI (03 2013) |  |
| Acetone (acetone: Sampling time: End of shift.)  | 25 mg/l (Urine)                | ACGIH BEI (03 2015) |  |
| Hexane (2,5-Hexanedion,<br>without hydrolysis: Sampling<br>time: End of shift at end of<br>work week.) | 0.4 mg/l (Urine)               | ACGIH BEI (03 2013) |  |
| Ethylbenzene (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)             | 0.15 g/g (Creatinine in urine) | ACGIH BEI (02 2014) |  |

# Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

#### Individual protection measures, such as personal protective equipment

#### **General information:**

Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof ventilation equipment.



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Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: Wear chemical-resistant gloves, footwear, and protective clothing

appropriate for the risk of exposure. Contact health and safety professional

or manufacturer for specific information.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from

local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and

> immediately after handling the product. Avoid contact with eyes. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash

contaminated clothing before reuse. Avoid contact with skin.

# 9. Physical and chemical properties

**Appearance** 

Physical state: liquid Form: liquid Color: Amber Odor: Solvent odor Odor threshold: No data available. pH: No data available. Melting point/freezing point: No data available. Initial boiling point and boiling range: 58 °C 136 °F Flash Point: -20 °C -4 °F **Evaporation rate:** Slower than Ether

Flammability (solid, gas): Nο Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%): No data available. Flammability limit - lower (%): No data available. **Explosive limit - upper (%):** No data available. Explosive limit - lower (%): No data available. No data available.

Vapor pressure:

Vapor density: Vapors are heavier than air and may travel along the floor and

in the bottom of containers.

Relative density: 0.874

Solubility(ies)

Solubility in water: Practically Insoluble Solubility (other): No data available. Partition coefficient (n-octanol/water): No data available.

Auto-ignition temperature: No data available. **Decomposition temperature:** No data available. Viscosity: No data available.



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# 10. Stability and reactivity

Reactivity: No data available.

**Chemical Stability:** Material is stable under normal conditions.

Possibility of hazardous

reactions:

No data available.

Conditions to avoid: Heat, sparks, flames.

Incompatible Materials: Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides

and chromates). Strong bases.

**Hazardous Decomposition** 

**Products:** 

Thermal decomposition or combustion may liberate carbon oxides and

other toxic gases or vapors.

# 11. Toxicological information

#### Information on likely routes of exposure

**Inhalation:** In high concentrations, vapors, fumes or mists may irritate nose, throat and

mucus membranes.

**Skin Contact:** Causes skin irritation.

**Eye contact:** Causes serious eye irritation.

**Ingestion:** May be ingested by accident. Ingestion may cause irritation and malaise.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation:** No data available.

**Skin Contact:** No data available.

**Eye contact:** No data available.

**Ingestion:** No data available.

# Information on toxicological effects

# Acute toxicity (list all possible routes of exposure)

Oral

**Product:** Not classified for acute toxicity based on available data.



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Specified substance(s):

Toluene LD 50 (Rat): 5,580 mg/kg

Acetone LD 50 (Rat): 5,800 mg/kg

Hexane LD 50 (Rat): 28,710 mg/kg

Aliphatic Naphtha (Light

aliphatic naphtha)

LD 50 (Rat): > 5,000 mg/kg

Ethylbenzene LD 50 (Rat): 3,500 mg/kg

**Dermal** 

**Product:** Not classified for acute toxicity based on available data.

Specified substance(s):

Toluene LD 50 (Rabbit): > 5,000 mg/kg

Acetone LD 50 (Rabbit): > 7,426 mg/kg

Hexane LD 50 (Rabbit): > 2,000 mg/kg

Aliphatic Naphtha (Light

aliphatic naphtha)

LD 50 (Rabbit): > 2,000 mg/kg

Ethylbenzene LD 50 (Rabbit): 17,800 mg/kg

Inhalation

**Product:** ATEmix: 347.05 mg/l

Repeated dose toxicity

**Product:** No data available.

Skin Corrosion/Irritation

**Product:** No data available.

Specified substance(s):



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Toluene in vivo (Rabbit): Irritating Experimental result, Key study

Acetone in vivo (Rabbit): Not irritant Experimental result, Supporting study

aliphatic naphtha)

Aliphatic Naphtha (Light in vivo (Rabbit): Irritating Experimental result, Key study

Serious Eye Damage/Eye Irritation

**Product:** No data available.

Specified substance(s):

Toluene Rabbit, 24 - 72 hrs: Not irritating

Acetone Irritating

Hexane Rabbit, 24 - 72 hrs: Not irritating

aliphatic naphtha)

Aliphatic Naphtha (Light Rabbit, 24 - 72 hrs: Not irritating

Ethylbenzene Rabbit, 7 d: Slightly irritating

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

**Product:** May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Overall evaluation: Possibly carcinogenic to humans. Ethylbenzene

**US. National Toxicology Program (NTP) Report on Carcinogens:** 

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

**Germ Cell Mutagenicity** 

In vitro

Product: No data available.

In vivo

No data available. **Product:** 

Reproductive toxicity

**Product:** Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure



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**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure** 

**Product:** No data available.

**Aspiration Hazard** 

**Product:** No data available.

Other effects: No data available.

# 12. Ecological information

# **Ecotoxicity:**

# Acute hazards to the aquatic environment:

Fish

**Product:** No data available.

Specified substance(s):

Toluene LC 50 (Fathead minnow (Pimephales promelas), 96 h): 20.5 - 23.8 mg/l

Mortality

Acetone LC 50 (Fathead minnow (Pimephales promelas), 96 h): 5,490 - 7,030 mg/l

Mortality

Hexane LC 50 (Fathead minnow (Pimephales promelas), 96 h): 2.101 - 2.981 mg/l

Mortality

Ethylbenzene LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 4.2

mg/l Mortality

**Aquatic Invertebrates** 

**Product:** No data available.

Specified substance(s):

Toluene LC 50 (Water flea (Daphnia magna), 24 h): 240 - 420 mg/l Mortality

Acetone EC 50 (Water flea (Daphnia magna), 48 h): 10,294 - 17,704 mg/l Intoxication

Hexane LC 50 (Water flea (Daphnia magna), 24 h): > 50 mg/l Mortality

Ethylbenzene EC 50 (Water flea (Daphnia magna), 48 h): 1.37 - 4.4 mg/l Intoxication

#### Chronic hazards to the aquatic environment:

Fish

**Product:** No data available.



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Specified substance(s):

Toluene LOAEL (Oncorhynchus kisutch, 40 d): 2.77 mg/l Experimental result, Key

study

NOAEL (Pimephales promelas, 32 d): 4 mg/l Experimental result,

Supporting study

LOAEL (Pimephales promelas, 32 d): 6 mg/l Experimental result, Supporting

study

NOAEL (Oncorhynchus kisutch, 40 d): 1.39 mg/l Experimental result, Key

study

Hexane NOAEL (Oncorhynchus mykiss, 28 d): 2.992 mg/l Read-across based on

grouping of substances (category approach), Supporting study

NOAEL (Oncorhynchus mykiss, 28 d): 4.089 mg/l Read-across based on

grouping of substances (category approach), Supporting study

NOAEL (Oncorhynchus mykiss, 28 d): 2.976 mg/l Read-across based on

grouping of substances (category approach), Supporting study

NOAEL (Oncorhynchus mykiss, 28 d): 2.8 mg/l QSAR QSAR, Key study

Aliphatic Naphtha (Light

aliphatic naphtha)

NOAEL (Daphnia magna, 21 d): 2.6 mg/l Other, Key study

NOAEL (Pimephales promelas, 14 d): 2.6 mg/l Experimental result,

Supporting study

LL 50 (Pimephales promelas, 14 d): 5.2 mg/l Experimental result, Supporting

study

EC 50 (Daphnia magna, 21 d): 10 mg/l Other, Key study

**Aquatic Invertebrates** 

Product:

No data available.

**Toxicity to Aquatic Plants** 

Product:

No data available.

**Persistence and Degradability** 

Biodegradation

**Product:** No data available.

**BOD/COD Ratio** 

**Product:** No data available.

Bioaccumulative potential

**Bioconcentration Factor (BCF)** 

**Product:** No data available.

Specified substance(s):

Toluene Green algae (Selenastrum capricornutum), Bioconcentration Factor (BCF):

3,016 (Static)

Partition Coefficient n-octanol / water (log Kow)

**Product:** No data available.

Specified substance(s):



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Toluene Log Kow: 2.73

Acetone Log Kow: -0.24

Hexane Log Kow: 3.90

Methylcyclopentane Log Kow: 3.37

Ethylbenzene Log Kow: 3.15

Mobility in soil: No data available.

Other adverse effects: Harmful to aquatic organisms.

# 13. Disposal considerations

**Disposal instructions:** Dispose of waste at an appropriate treatment and disposal facility in

accordance with applicable laws and regulations, and product

characteristics at time of disposal.

Contaminated Packaging: No data available.

#### 14. Transport information

#### TDG:

UN1133, ADHESIVES, 3, PG II

#### CFR / DOT:

UN1133, Adhesives, 3, PG II

#### IMDG:

UN1133, ADHESIVES, 3, PG II

#### **Further Information:**

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

# 15. Regulatory information

#### **US Federal Regulations**

# TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.



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#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

<u>Chemical Identity</u> <u>OSHA hazard(s)</u>

Benzene Blood

respiratory tract irritation Central nervous system

Flammability Cancer Skin Aspiration Eye

Formaldehyde Acute toxicity

Skin irritation Skin sensitization Flammability

respiratory tract irritation Respiratory sensitization

Cancer Eye irritation

Cadmium oxide Kidney

Acute toxicity

Lung Cancer

Lead oxide Kidney

Acute toxicity

Central nervous system

Blood

Reproductive toxicity

# CERCLA Hazardous Substance List (40 CFR 302.4):

**Chemical Identity** Reportable quantity 1000 lbs. Toluene 5000 lbs. Acetone 5000 lbs. Hexane Methylcyclopentane 100 lbs. Ethylbenzene 1000 lbs. Benzene 10 lbs. Chloroprene 100 lbs. Formaldehyde 100 lbs. Cadmium oxide 10 lbs. Lead oxide 10 lbs.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

# **Hazard categories**

Fire Hazard

Immediate (Acute) Health Hazards Delayed (Chronic) Health Hazard

Flammable (gases, aerosols, liquids, or solids)

Skin Corrosion or Irritation

Serious eye damage or eye irritation

Germ Cell Mutagenicity



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Carcinogenicity
Reproductive toxicity

Hazards Not Otherwise Classified (HNOC)

#### **SARA 302 Extremely Hazardous Substance**

#### Reportable

Chemical IdentityquantityThreshold Planning QuantityFormaldehyde100 lbs.500 lbs.Cadmium oxide100 lbs.-----

#### **SARA 304 Emergency Release Notification**

| Chemical | ldentity | Reportable quantity |
|----------|----------|---------------------|

1000 lbs. Toluene Acetone 5000 lbs. Hexane 5000 lbs. Methylcyclopentane 100 lbs. Ethylbenzene 1000 lbs. Benzene 10 lbs. 100 lbs. Chloroprene Formaldehyde 100 lbs. Cadmium oxide 10 lbs. Lead oxide 10 lbs.

#### SARA 311/312 Hazardous Chemical

| Chemical Identity | Threshold Planning Quantity |
|-------------------|-----------------------------|
|                   |                             |

Formaldehyde 500lbs
Cadmium oxide 100lbs
Toluene 10000 lbs
Acetone 10000 lbs
Hexane 10000 lbs
Aliphatic Naphtha (Light 10000 lbs

aliphatic naphtha)

Methylcyclopentane 10000 lbs Ethylbenzene 10000 lbs

# SARA 313 (TRI Reporting)

# **Chemical Identity**

Toluene Hexane Ethylbenzene

# Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

<u>Chemical Identity</u> <u>Reportable quantity</u>

Formaldehyde lbs

#### Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

#### **US State Regulations**

#### **US.** California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Toluene Developmental toxin. 09 2011 Ethylbenzene Carcinogenic. 09 2011 Benzene Carcinogenic. 09 2011



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Benzene Developmental toxin. 09 2011
Benzene Male reproductive toxin. 09 2011

Chloroprene Carcinogenic. 09 2011
Formaldehyde Carcinogenic. 09 2011
Cadmium oxide Carcinogenic. 09 2011

Cadmium oxide Developmental toxin. 09 2011
Cadmium oxide Male reproductive toxin. 09 2011

Lead oxide Carcinogenic. 12 2015

# US. New Jersey Worker and Community Right-to-Know Act

# **Chemical Identity**

Toluene

Acetone Hexane

Aliphatic Naphtha (Light aliphatic naphtha)

Methylcyclopentane

Ethylbenzene

#### **US. Massachusetts RTK - Substance List**

#### **Chemical Identity**

Toluene

Acetone

Hexane

Aliphatic Naphtha (Light aliphatic naphtha)

Methylcyclopentane

Benzene

Formaldehyde

Cadmium oxide

#### US. Pennsylvania RTK - Hazardous Substances

#### **Chemical Identity**

Toluene

Acetone

Hexane

Aliphatic Naphtha (Light aliphatic naphtha)

Methylcyclopentane

#### **US. Rhode Island RTK**

#### **Chemical Identity**

Toluene

Acetone

Hexane

Aliphatic Naphtha (Light aliphatic naphtha)

Methylcyclopentane

# International regulations

# Montreal protocol

not applicable

#### Stockholm convention

not applicable

#### **Rotterdam convention**

not applicable



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# Kyoto protocol not applicable

VOC:

Regulatory VOC (less water and : 637 g/l exempt solvent) : 637 g/l

VOC Method 310

: 54.28 %



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**Inventory Status:** 

Australia AICS:

One or more components in this product are not listed on or exempt from the Inventory.

Canada DSL Inventory List:

One or more components in this product are not listed on or exempt from the Inventory.

EINECS, ELINCS or NLP:

One or more components in this product are not listed on or exempt from the Inventory.

Japan (ENCS) List:

One or more components in this product are not listed on or exempt from the Inventory.

China Inv. Existing Chemical Substances:

One or more components in this product are not listed on or exempt from the Inventory.

Korea Existing Chemicals Inv. (KECI):

One or more components in this product are not listed on or exempt from the Inventory.

Canada NDSL Inventory:

One or more components in this product are

not listed on or exempt from the Inventory.

Philippines PICCS:

One or more components in this product are not listed on or exempt from the Inventory.

US TSCA Inventory: One or more components in this product are

not listed on or exempt from the Inventory.

New Zealand Inventory of Chemicals:

One or more components in this product are not listed on or exempt from the Inventory.

Japan ISHL Listing:

One or more components in this product are

Japan Pharmacopoeia Listing:

One or more components in this product are

not listed on or exempt from the Inventory.

Mexico INSQ:

One or more components in this product are not listed on or exempt from the Inventory.

Ontario Inventory: One or more components in this product are

not listed on or exempt from the Inventory.

Taiwan Chemical Substance Inventory:

One or more components in this product are not listed on or exempt from the Inventory.

not listed on or exempt from the Inventory.



Revision Date: 03/14/2018

# 16.Other information, including date of preparation or last revision

**Revision Date:** 03/14/2018

Version #: 1.0

Further Information: No data available.

**Disclaimer:** For Industrial Use Only. Keep out of Reach of Children. The hazard

information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including

the safe use of the product under every foreseeable condition.