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SAFETY DATA SHEET

1. Identification

Material name: TREMPLY TPO BONDING ADHESIVE LV3 5 GL

Material: 423310 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

Serious Eye Damage/Eye Irritation Category 2A
Toxic to reproduction Category 2
Specific Target Organ Toxicity - Category 2

Repeated Exposure

Unknown toxicity - Health

Acute toxicity, oral 25.64 %
Acute toxicity, dermal 25.68 %
Acute toxicity, inhalation, vapor 72.25 %
Acute toxicity, inhalation, dust or mist

Label Elements

Hazard Symbol:





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Signal Word: Danger

Hazard Statement: Highly flammable liquid and vapour.

Causes serious eye irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May be harmful if swallowed.
Suspected of causing cancer.

Suspected of damaging fertility or the unborn child.

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.

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 exposed or concerned: Get medical advice/attention. 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.

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 (%)* |
|--------------------|------------|-------------------------|
| Tert-Butyl Acetate | 540-88-5 | 20 - <50% |
| Acetone | 67-64-1 | 20 - <50% |
| Toluene | 108-88-3 | 5 - <10% |
| Magnesium oxide | 1309-48-4 | 1 - <5% |
| Ethylbenzene | 100-41-4 | 0.1 - <1% |

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures



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

Inhalation: Move to fresh air.

Skin Contact: Wash skin thoroughly with soap and water. Take off immediately all

contaminated clothing. If skin irritation occurs: Get medical advice/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.

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.

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.



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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.

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

accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or

spillage if safe to do so.

7. Handling and storage

Precautions for safe handling:

Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. 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.

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

| | T | F 1 in it Value | 0 |
|---|--------------|-----------------------|--|
| Chemical Identity | Туре | Exposure Limit Values | Source |
| Tert-Butyl Acetate | TWA | 50 ppm | US. ACGIH Threshold Limit Values (03 2016) |
| · | STEL | 150 ppm | US. ACGIH Threshold Limit Values (03 2016) |
| | PEL | 200 ppm 950 mg/m | 3 US. OSHA Table Z-1 Limits for Air Contaminants (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/m | 3 US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| 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. CONC | 500 ppm | US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006) |
| Magnesium oxide - Inhalable fraction. | TWA | 10 mg/m | 3 US. ACGIH Threshold Limit Values (2011) |
| Magnesium oxide - Total particulate. | PEL | 15 mg/m | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Magnesium oxide - Respirable fraction. | TWA | 5 mg/m | 3 US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016) |
| • | TWA | 15 millions of | of US. OSHA Table Z-3 (29 CFR 1910.1000) (03 |
| | | particles pe | |
| | | cubic foot of | |
| | | a | |
| Magnesium oxide - Total dust. | TWA | 15 mg/m | 3 US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016) |
| | TWA | 50 millions of | |
| | | particles pe | er 2016) |



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| | | | cubic foot of air | |
|--------------|-----|---------|-------------------|---|
| Ethylbenzene | TWA | 20 ppm | u.i. | US. ACGIH Threshold Limit Values (2011) |
| | PEL | 100 ppm | 435 mg/m3 | US. OSHA Table Z-1 Limits for Air |
| | | | | Contaminants (29 CFR 1910.1000) (02 2006) |

| Chemical name | Туре | Exposure Lir | nit Values | Source |
|--------------------|------|--------------|-------------|---|
| Tert-Butyl Acetate | TWA | 200 ppm | | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Tert-Butyl Acetate | TWA | 200 ppm | | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Tert-Butyl Acetate | TWA | 200 ppm | 950 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work 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 - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| | TWA | 500 ppm | 1,190 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |



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| 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 - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Magnesium oxide - Respirable dust and/or fume. - as Mg | STEL | | 10 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Magnesium oxide - Inhalable fume. | TWA | | 10 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Magnesium oxide - Respirable dust and/or fume. - as Mg | TWA | | 3 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Magnesium oxide - Inhalable fraction. | TWA | | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Magnesium oxide - Fume as Mg | TWA | | 10 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| 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 - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| | STEL | 125 ppm | 543 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work 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 - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| | STEL | 5 ppm | 15.5 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |



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| 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/m | 3 Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work 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) |
| Formaldehyde | CEILING | 2 ppm 3 mg/m | 3 Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Lead oxide - as Pb | TWA | 0.05 mg/m | 3 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/m | |
| Lead oxide - as Pb | TWA | 0.05 mg/m | 3 Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Cadmium oxide - Respirable. - as Cd | TWA | 0.002 mg/m | 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/m | 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/m | 3 Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Cadmium oxide - Respirable fraction as Cd | TWA | 0.002 mg/m | 3 Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015) |
| Cadmium oxide - as Cd | TWA | 0.025 mg/m | |

Biological Limit Values

| Chemical Identity | Exposure Limit Values | Source |
|--|--------------------------------|---------------------|
| Acetone (acetone: Sampling time: End of shift.) | 25 mg/l (Urine) | ACGIH BEI (03 2015) |
| 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) |
| Ethylbenzene (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.) | 0.15 g/g (Creatinine in urine) | ACGIH BEI (02 2014) |



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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.

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 suitable protective clothing.

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.

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: 56.05 °C 132.89 °F Flash Point: -1 °C 30 °F

Evaporation rate: Slower than Ether

Flammability (solid, gas):

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%):

Flammability limit - lower (%):

Explosive limit - upper (%):

Explosive limit - lower (%):

No data available.

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



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in the bottom of containers.

Relative density: 0.921

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.

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: May be harmful in contact with skin. Causes mild 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.



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Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

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

Specified substance(s):

Tert-Butyl Acetate LD 50 (Rat): 4,100 mg/kg

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

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

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

Dermal

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

Specified substance(s):

Tert-Butyl Acetate LD 50 (Rabbit): > 2,000 mg/kg

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

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

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

Inhalation

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

Specified substance(s):

Acetone LC 50 (Rat): 50.1 mg/l

Toluene LC 50 (Rat): 25.7 mg/l

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: No data available.



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Specified substance(s):

Tert-Butyl Acetate in vivo (Rabbit): Not irritant Experimental result, Key study

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

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

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

Tert-Butyl Acetate Rabbit, 24 hrs: Not irritating

Acetone Irritating

Toluene Rabbit, 24 - 72 hrs: Not irritating

Ethylbenzene Rabbit, 7 d: Slightly irritating

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Ethylbenzene Overall evaluation: Possibly carcinogenic to humans.

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

Product: No data available.

Reproductive toxicity

Product: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.



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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):

Tert-Butyl Acetate LC 50 (Fathead minnow (Pimephales promelas), 96 h): 296 - 362 mg/l

Mortality

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

Mortality

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

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

Toluene LC 50 (Water flea (Daphnia magna), 24 h): 240 - 420 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.

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



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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

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):

Tert-Butyl Acetate Log Kow: 1.76

Acetone Log Kow: -0.24

Toluene Log Kow: 2.73

Ethylbenzene Log Kow: 3.15

Mobility in soil: No data available.

Other adverse effects: No data available.

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.



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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

Lead oxide Kidney

Acute toxicity

Central nervous system

Blood

Reproductive toxicity

Cadmium oxide Kidney

Acute toxicity

Lung Cancer

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity Reportable quantity Tert-Butyl Acetate 5000 lbs. 5000 lbs. Acetone Toluene 1000 lbs. Ethylbenzene 1000 lbs. Benzene 10 lbs. Chloroprene 100 lbs. Formaldehyde 100 lbs. Lead oxide 10 lbs. Cadmium 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)

Serious eye damage or eye irritation

Carcinogenicity
Reproductive toxicity

Hazards Not Otherwise Classified (HNOC)



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SARA 302 Extremely Hazardous Substance

Reportable

<u>Chemical Identity</u> <u>quantity</u> <u>Threshold Planning Quantity</u>

Formaldehyde 100 lbs. 500 lbs. Cadmium oxide 100 lbs. ----

SARA 304 Emergency Release Notification

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

Tert-Butyl Acetate 5000 lbs. Acetone 5000 lbs. Toluene 1000 lbs. Ethylbenzene 1000 lbs. Benzene 10 lbs. Chloroprene 100 lbs. Formaldehyde 100 lbs. Lead oxide 10 lbs. Cadmium oxide 10 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u> <u>Threshold Planning Quantity</u>

Formaldehyde 500lbs
Cadmium oxide 100lbs
Tert-Butyl Acetate 10000 lbs
Acetone 10000 lbs
Toluene 10000 lbs
Magnesium oxide 10000 lbs
Ethylbenzene 10000 lbs

SARA 313 (TRI Reporting)

Chemical Identity

Toluene Ethylbenzene

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

Chemical Identity Reportable quantity

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

Chloroprene Carcinogenic. 09 2011
Formaldehyde Carcinogenic. 09 2011
Lead oxide Carcinogenic. 12 2015
Cadmium oxide Carcinogenic. 09 2011
Cadmium oxide Developmental toxin. 09 2011
Cadmium oxide Male reproductive toxin. 09 2011



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

Chemical Identity

Tert-Butyl Acetate

Acetone

Toluene

Magnesium oxide

Ethylbenzene

US. Massachusetts RTK - Substance List

Chemical Identity

Tert-Butyl Acetate

Acetone

Toluene

Magnesium oxide

Benzene

Formaldehyde

Cadmium oxide

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Tert-Butyl Acetate

Acetone

Toluene

Magnesium oxide

US. Rhode Island RTK

Chemical Identity

Tert-Butyl Acetate

Acetone

Toluene

Magnesium oxide

International regulations

Montreal protocol

not applicable

Stockholm convention

not applicable

Rotterdam convention

not applicable

Kyoto protocol

not applicable

VOC:

Regulatory VOC (less water and

exempt solvent)

VOC Method 310 : 6.15 %

: 228 g/l



Revision Date: 02/26/2018

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

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

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 not listed on or exempt from the Inventory.

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.



Revision Date: 02/26/2018

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

Revision Date: 02/26/2018

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.