

SAFETY DATA SHEET

1. Identification

Material name: POLYroof[®] LV
Material: 361590 803

Recommended use and restriction on use

Recommended use: Sealant
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 Department
Telephone: 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 solid Category 2

Health Hazards

Acute toxicity (Inhalation - dust and mist) Category 4
Serious Eye Damage/Eye Irritation Category 2B
Germ Cell Mutagenicity Category 1B
Carcinogenicity Category 1A
Toxic to reproduction Category 1B

Unknown toxicity - Health

Acute toxicity, oral 0.69 %
Acute toxicity, dermal 1.37 %
Acute toxicity, inhalation, vapor 99.66 %
Acute toxicity, inhalation, dust or mist 94.5 %

Environmental Hazards

Acute hazards to the aquatic environment Category 2

Unknown toxicity - Environment

Acute hazards to the aquatic environment 71.65 %
Chronic hazards to the aquatic environment 100 %

Label Elements

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Flammable solid.
Harmful if inhaled.
Causes eye irritation.
May cause genetic defects.
May cause cancer.
May damage fertility or the unborn child.
Toxic to aquatic life.

Precautionary Statement:

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. 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 INHALED: Remove person to fresh air and keep comfortable for breathing. 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. Call a POISON CENTER/doctor if you feel unwell. In case of fire: Use ... to extinguish.

Storage: 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.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixtures

| Chemical Identity | CAS number | Content in percent (%)* |
|-------------------|------------|-------------------------|
| Asphalt | 8052-42-4 | 30 - 60% |
| Xylene | 1330-20-7 | 15 - 40% |
| Amorphous silica | 7631-86-9 | 5 - 10% |
| Ethylbenzene | 100-41-4 | 5 - 10% |
| Coal tar pitch | 65996-93-2 | 3 - 7% |

| | | |
|---------------------------------------|------------|------------|
| Petroleum distillates | 64741-81-7 | 1 - 5% |
| Residues (petroleum), thermal cracked | 64741-80-6 | 1 - 5% |
| Polyethylene | 9002-88-4 | 0.5 - 1.5% |
| Carbon Black | 1333-86-4 | 0.5 - 1.5% |
| Hydrodesulfurized middle distillate | 64742-80-9 | 0.1 - 1% |
| Toluene | 108-88-3 | 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

- Ingestion:** Call a POISON CENTER/doctor/...if you feel unwell. Rinse mouth.
- Inhalation:** Move to fresh air.
- Skin Contact:** Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.
- Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/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.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

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).

Methods and material for containment and cleaning up: 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. Avoid release to the environment.

7. Handling and storage

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. Ground and bond container and receiving equipment. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust.

Conditions for safe storage, including any incompatibilities: Store locked up. Store in a cool place.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

| Chemical Identity | type | Exposure Limit Values | Source |
|---|------|-----------------------|--|
| Asphalt - Inhalable fraction. - as benzene solubles | TWA | 0.5 mg/m3 | US. ACGIH Threshold Limit Values (2011) |
| Xylene | STEL | 150 ppm 655 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2010) |
| | REL | 100 ppm 435 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2010) |
| | STEL | 150 ppm 655 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2010) |
| | REL | 100 ppm 435 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2010) |
| | STEL | 150 ppm 655 mg/m3 | US. NIOSH: Pocket Guide to Chemical Hazards (2010) |
| | REL | 100 ppm 435 mg/m3 | US. NIOSH: Pocket Guide to |

| | | | |
|---|------------|--|--|
| | | mg/m3 | Chemical Hazards (2010) |
| | STEL | 150 ppm 655 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| | TWA | 100 ppm 435 mg/m3 | US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989) |
| | TWA | 100 ppm 435 mg/m3 | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| | STEL | 150 ppm 655 mg/m3 | US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008) |
| | ST ESL | 350 µg/m3 | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011) |
| | ST ESL | 80 ppb | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011) |
| | AN ESL | 42 ppb | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011) |
| | AN ESL | 180 µg/m3 | US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011) |
| | STEL | 150 ppm 655 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010) |
| | Ceiling | 300 ppm | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010) |
| | TWA PEL | 100 ppm 435 mg/m3 | US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010) |
| | TWA | 100 ppm | US. ACGIH Threshold Limit Values (2011) |
| | STEL | 150 ppm | 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) |
| Amorphous silica | TWA | 20 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| | TWA | 0.8 mg/m3 | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Ethylbenzene | TWA | 20 ppm | 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) |
| Coal tar pitch - Aerosol. - as benzene solubles | TWA | 0.2 mg/m3 | US. ACGIH Threshold Limit Values (2011) |
| Coal tar pitch | PEL | 0.2 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Polyethylene - Inhalable particles. | TWA | 10 mg/m3 | US. ACGIH Threshold Limit Values (03 2015) |

| | | | |
|---|-----------|--|---|
| Polyethylene - Respirable particles. | TWA | 3 mg/m3 | US. ACGIH Threshold Limit Values (03 2015) |
| Polyethylene - Respirable fraction. | PEL | 5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Polyethylene - Total dust. | PEL | 15 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| | TWA | 15 mg/m3 | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| | TWA | 50 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Polyethylene - Respirable fraction. | TWA | 5 mg/m3 | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| | TWA | 15 millions of particles per cubic foot of air | US. OSHA Table Z-3 (29 CFR 1910.1000) (2000) |
| Carbon Black - Inhalable fraction. | TWA | 3 mg/m3 | US. ACGIH Threshold Limit Values (2011) |
| Carbon Black | PEL | 3.5 mg/m3 | US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006) |
| Hydrodesulfurized middle distillate - Inhalable fraction. | TWA | 5 mg/m3 | US. ACGIH Threshold Limit Values (03 2014) |
| 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) |

| Chemical name | type | Exposure Limit Values | Source |
|---|-------|-----------------------|---|
| Asphalt - Aerosol, inhalable. - as benzene solubles | TWA | 0.5 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Asphalt - Inhalable fraction. - as benzene solubles | TWAEV | 0.5 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Asphalt - Fume. | TWA | 5 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Xylene | TWA | 100 ppm 434 mg/m3 | Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009) |
| | STEL | 150 ppm 651 | Canada. Alberta OELs (Occupational |

| | | mg/m3 | Health & Safety Code, Schedule 1, Table 2) (07 2009) |
|-------------------------------------|-------|-----------|---|
| Xylene | TWA | 100 ppm | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| | STEL | 150 ppm | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Xylene | TWAEV | 100 ppm | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| | STEL | 150 ppm | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Xylene | TWA | 100 ppm | 434 mg/m3 Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| | STEL | 150 ppm | 651 mg/m3 Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Amorphous silica - Total | TWA | 4 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Amorphous silica - Respirable. | TWA | 1.5 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Amorphous silica | TWAEV | 10 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Amorphous silica - Respirable dust. | TWA | 6 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 | STEL | 125 ppm | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| | TWAEV | 100 ppm | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |

| | | | | |
|---|-------|---------|-----------|---|
| 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) |
| Coal tar pitch - Aerosol. - as benzene solubles | TWA | | 0.2 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007) |
| Coal tar pitch - Aerosol. - as benzene solubles | TWAEV | | 0.2 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Coal tar pitch - as benzene solubles | TWA | | 0.2 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Carbon Black - Inhalable | TWA | | 3 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011) |
| Carbon Black | TWAEV | | 3.5 mg/m3 | Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010) |
| Carbon Black | TWA | | 3.5 mg/m3 | Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008) |
| Hydrodesulfurized middle distillate - Mist. | TWA | | 0.2 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013) |
| | TWA | | 1 mg/m3 | Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013) |
| 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 | TWAEV | 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) |

Biological Limit Values

| Chemical Identity | Exposure Limit Values | Source |
|--|--------------------------------|---------------------|
| Xylene (Methylhippuric acids: Sampling time: End of shift.) | 1.5 g/g (Creatinine in 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) |
| 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) |

Appropriate Engineering Controls

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

Individual protection measures, such as personal protective equipment

- General information:** Use explosion-proof ventilation equipment. 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.
- 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. 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: solid
Form: Paste

| | |
|--|---|
| Color: | Black |
| Odor: | Slight odor |
| Odor threshold: | No data available. |
| pH: | No data available. |
| Melting point/freezing point: | No data available. |
| Initial boiling point and boiling range: | 371 °C 700 °F |
| Flash Point: | No data available. |
| Evaporation rate: | Slower than Ether |
| Flammability (solid, gas): | Flammable solid. |
| 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. |
| Vapor pressure: | No data available. |
| Vapor density: | Vapors are heavier than air and may travel along the floor and in the bottom of containers. |
| Relative density: | 0.98 |
| 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: | Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). |
| 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

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

| | |
|----------------------|---|
| 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 eye irritation. |

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

| | |
|-------------------|-------------------------|
| Oral | |
| Product: | ATEmix: 11,214.96 mg/kg |
| Dermal | |
| Product: | ATEmix: 3,740.89 mg/kg |
| Inhalation | |
| Product: | ATEmix: 4.37 mg/l |

| | |
|-------------------------------|--------------------|
| Repeated dose toxicity | |
| Product: | No data available. |

| | |
|----------------------------------|--------------------|
| Skin Corrosion/Irritation | |
| Product: | No data available. |

| | |
|-------------------------------------|---|
| Specified substance(s): | |
| Asphalt | in vivo (Rabbit): Experimental result, Key study |
| Xylene | in vivo (Rabbit): Experimental result, Weight of Evidence study |
| Amorphous silica | in vivo (Rabbit): Experimental result, Key study |
| Coal tar pitch | in vivo (Rabbit): Experimental result, Key study |
| Carbon Black | in vivo (Rabbit): Experimental result, Key study |
| Hydrodesulfurized middle distillate | in vivo (Rabbit): Experimental result, Key study |
| Toluene | in vivo (Rabbit): Experimental result, Key study |

| | |
|--|--------------------|
| Serious Eye Damage/Eye Irritation | |
| Product: | No data available. |

Specified substance(s):

| | |
|--|---|
| Asphalt | in vivo (Rabbit, 24 hrs): Not irritating |
| Xylene | in vivo (Rabbit, 24 hrs): Moderately irritating |
| Amorphous silica | in vivo (Rabbit, 24 hrs): Not irritating |
| Ethylbenzene | in vivo (Rabbit, 7 d): Slightly irritating |
| Coal tar pitch | in vivo (Rabbit, 1 hrs): Not irritating |
| Petroleum distillates | in vivo (Rabbit, 24 hrs): Not an irritant |
| Residues (petroleum), thermal cracked | in vivo (Rabbit, 24 hrs): Not an irritant |
| Carbon Black | in vivo (Rabbit, 24 - 72 hrs): Not irritating |
| Hydrodesulfurized middle distillate | in vivo (Rabbit, 24 hrs): Not irritating |
| Toluene | in vivo (Rabbit, 24 - 72 hrs): Not irritating |

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

| | |
|--|---|
| Asphalt | Overall evaluation: Possibly carcinogenic to humans. |
| Ethylbenzene | Overall evaluation: Possibly carcinogenic to humans. |
| Coal tar pitch | Overall evaluation: Carcinogenic to humans. |
| Petroleum distillates | Overall evaluation: Possibly carcinogenic to humans. |
| Carbon Black | Overall evaluation: Possibly carcinogenic to humans. |
| Hydrodesulfurized middle distillate | Overall evaluation: Not classifiable as to carcinogenicity to humans. Overall evaluation: Carcinogenic to humans. Overall evaluation: Not classifiable as to carcinogenicity to humans. |

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

| | |
|--|-------------------------------|
| Coal tar pitch | Known To Be Human Carcinogen. |
| Hydrodesulfurized middle distillate | Known To Be Human Carcinogen. |

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: May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

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):

| | |
|--------------|---|
| Xylene | LC 50 (Bryconamericus iheringii, 96 h): 9.94 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study LC 50 (Oncorhynchus mykiss, 96 h): 8.05 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study LC 50 (Bryconamericus iheringii, 96 h): 6.9 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study LC 50 (Oncorhynchus mykiss, 96 h): 7.6 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study LC 50 (Oncorhynchus mykiss, 96 h): 2.6 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study |
| Ethylbenzene | LC 50 (Fathead minnow (Pimephales promelas), 96 h): 9.1 - 15.6 mg/l Mortality |
| Toluene | LC 50 (Fathead minnow (Pimephales promelas), 96 h): 20.5 - 23.8 mg/l Mortality |

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

| | |
|--------------|--|
| Xylene | EC 50 (Daphnia magna, 48 h): 3.82 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study EC 50 (Ceriodaphnia dubia, 48 h): > 3.4 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study IC 50 (Daphnia magna, 24 h): 4.7 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study IC 50 (Daphnia magna, 24 h): 3.6 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study IC 50 (Daphnia magna, 24 h): 2.2 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study |
| Ethylbenzene | LC 50 (Water flea (Daphnia magna), 24 h): 190 mg/l Mortality |
| Toluene | LC 50 (Water flea (Daphnia magna), 24 h): 240 - 420 mg/l Mortality |

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

| | |
|---------------------------------------|--|
| Asphalt | NOAEL (Oncorhynchus mykiss, 28 d): >= 1,000 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study LL 50 (Oncorhynchus mykiss, 28 d): > 1,000 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study |
| Xylene | NOAEL (Oncorhynchus mykiss, 56 d): > 1.3 mg/l Experimental result, Key study |
| Coal tar pitch | LC 50 (Danio rerio, 42 d): > 4 µg/l Read-across from supporting substance (structural analogue or surrogate), Key study NOAEL (Danio rerio, 42 d): 4 µg/l Read-across from supporting substance (structural analogue or surrogate), Key study |
| Petroleum distillates | NOAEL (Oncorhynchus mykiss, 28 d): 0.1 mg/l QSAR QSAR, Key study |
| Residues (petroleum), thermal cracked | NOAEL (Oncorhynchus mykiss, 28 d): 0.1 mg/l QSAR QSAR, Key study |
| Carbon Black | NOAEL (Salmo sp., 30 d): 17 mg/l QSAR QSAR, Key study |
| Hydrodesulfurized middle distillate | NOAEL (Oncorhynchus mykiss, 14 d): 0.069 mg/l QSAR QSAR, Key study |
| 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 |

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Xylene
 NOAEL (Ceriodaphnia dubia, 7 d): 1.17 mg/l Read-across from supporting substance (structural analogue or surrogate), Key study
 NOAEL (Daphnia magna, 21 d): 1.57 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
 LOAEL (Daphnia magna, 21 d): 3.16 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
 EC 10 (Daphnia magna, 21 d): 1.91 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study
 EC 50 (Daphnia magna, 21 d): 2.9 mg/l Read-across from supporting substance (structural analogue or surrogate), Supporting study

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):

Xylene
 Oncorhynchus mykiss, Bioconcentration Factor (BCF): > 5.5 - < 12.2 Aquatic sediment Experimental result, Key study
 Oncorhynchus mykiss, Bioconcentration Factor (BCF): > 8.1 - < 25.9 Aquatic sediment Experimental result, Key study
 Oncorhynchus mykiss, Bioconcentration Factor (BCF): > 7.2 - < 24.2 Aquatic sediment Experimental result, Key study
 Oncorhynchus mykiss, Bioconcentration Factor (BCF): > 7.4 - < 18.5 Aquatic sediment Experimental result, Key study
 Oncorhynchus mykiss, Bioconcentration Factor (BCF): > 7.7 - < 21.2 Aquatic sediment Experimental result, Key study

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):

Xylene
 Log Kow: 3.12 - 3.20

Ethylbenzene
 Log Kow: 3.15

Toluene Log Kow: 2.73

Mobility in Soil: No data available.

Other Adverse Effects: Toxic 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:

UN1325, FLAMMABLE SOLID, ORGANIC, N.O.S. (Xylene), 4.1, PG III

CFR / DOT:

UN1325, Flammable solids, organic, n.o.s. (Xylene), 4.1, PG III

IMDG:

UN1325, FLAMMABLE SOLID, ORGANIC, N.O.S. (Xylene), 4.1, PG III

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.

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

Chemical Identity

Benzene

OSHA hazard(s)

Blood
respiratory tract irritation
Central nervous system
Flammability
Cancer
Skin
Aspiration
Eye

CERCLA Hazardous Substance List (40 CFR 302.4):

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--|----------------------------|
| Asphalt | 100 lbs. |
| Xylene | 100 lbs. |
| Ethylbenzene | 1000 lbs. |
| Toluene | 1000 lbs. |
| Fluorathene | 100 lbs. |
| Phenanthrene | 5000 lbs. |
| Naphthalene | 100 lbs. |
| Anthracene | 5000 lbs. |
| Indeno[1,2,3-cd]pyrene | 100 lbs. |
| Benzo(a)anthracene | 10 lbs. |
| Chrysene | 100 lbs. |
| Benzo(a)pyrene | 1 lbs. |
| Acenaphthene | 100 lbs. |
| Dibenzofuran | 100 lbs. |
| Benzo(b)fluoranthene/benzo[e]acefenantrileno | 1 lbs. |
| Biphenyl | 100 lbs. |
| Dibenz(a,h)anthracene | 1 lbs. |
| Benzene | 10 lbs. |

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

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

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--|----------------------------|
| Asphalt | 100 lbs. |
| Xylene | 100 lbs. |
| Ethylbenzene | 1000 lbs. |
| Toluene | 1000 lbs. |
| Fluorathene | 100 lbs. |
| Phenanthrene | 5000 lbs. |
| Naphthalene | 100 lbs. |
| Anthracene | 5000 lbs. |
| Indeno[1,2,3-cd]pyrene | 100 lbs. |
| Benzo(a)anthracene | 10 lbs. |
| Chrysene | 100 lbs. |
| Benzo(a)pyrene | 1 lbs. |
| Acenaphthene | 100 lbs. |
| Dibenzofuran | 100 lbs. |
| Benzo(b)fluoranthene/benzo[e]acefenantrileno | 1 lbs. |
| Biphenyl | 100 lbs. |
| Dibenz(a,h)anthracene | 1 lbs. |
| Benzene | 10 lbs. |

SARA 311/312 Hazardous Chemical

| <u>Chemical Identity</u> | <u>Threshold Planning Quantity</u> |
|--|------------------------------------|
| Asphalt | 500 lbs |
| Xylene | 500 lbs |
| Amorphous silica | 500 lbs |
| Ethylbenzene | 500 lbs |
| Coal tar pitch | 500 lbs |
| Petroleum distillates | 500 lbs |
| Residues (petroleum), thermal cracked | 500 lbs |
| Polyethylene | 500 lbs |
| Carbon Black | 500 lbs |
| Hydrodesulfurized middle distillate | 500 lbs |
| Toluene | 500 lbs |

SARA 313 (TRI Reporting)

| <u>Chemical Identity</u> |
|--------------------------|
| Xylene |
| Ethylbenzene |

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

| <u>Chemical Identity</u> | <u>Reportable quantity</u> |
|--------------------------|----------------------------|
| Xylene | 100 lbs. |

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

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.

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

| <u>Chemical Identity</u> |
|--------------------------|
| Asphalt |
| Xylene |
| Amorphous silica |
| Ethylbenzene |
| Coal tar pitch |
| Carbon Black |

US. Massachusetts RTK - Substance List**Chemical Identity**

Asphalt
Xylene
Amorphous silica
Ethylbenzene
Coal tar pitch
Indeno[1,2,3-cd]pyrene
Benzo(a)anthracene
Chrysene
Benzo(a)pyrene
Benzo(b)fluoranthene/benzo[e]acefenantrileno
Dibenz(a,h)anthracene

US. Pennsylvania RTK - Hazardous Substances**Chemical Identity**

Asphalt
Xylene
Amorphous silica
Ethylbenzene
Coal tar pitch

US. Rhode Island RTK**Chemical Identity**

Xylene
Ethylbenzene

Other Regulations:

| | |
|--|---------|
| Regulatory VOC (less water and exempt solvent): | 277 g/l |
| VOC Method 310: | 28.21 % |

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. |
| 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. |
| US TSCA Inventory: | All components in this product are listed on or exempt from the Inventory. |

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| 16. Other information, including date of preparation or last revision |
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|-----------------------------|---|
| Revision Date: | 04/12/2016 |
| Version #: | 3.1 |
| 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. |