1. Product and Company Identification

Product identifier: WINTER CONDITIONER

Other means of identification:
- MSDS number: CC2590 (Bulk); CC2591 (1 Pint / 470 mL); CC2592 (1 Quart / 946 mL); CC2593 (5 gallon / 18.9 L Pail); CC2594; (55 gallon / 208 L Drum)

Product use: Diesel fuel additive.

Chemical family: Mixture of: Petroleum distillates; Hydrocarbons; Ether

Manufacturer:
- Company name: Cummins Filtration
- Address: 1200 Fleetguard Road, Cookeville, TN, U.S.A. 38506
- Telephone: (931) 526 9551
- Website: www.cumminsfiltration.com
- E-Mail: fleetmaster.us@cummins.com

Supplier information: Refer to Manufacturer

Emergency phone number: Chemtrec 1-800-424-9300 (Within Continental U.S.); Chemtrec 703-527-3887 (Outside U.S.)

2. Hazard(s) Identification

Emergency overview:
Amber liquid. Hydrocarbon odour.
WARNING! Combustible liquid and vapour. May be harmful or fatal if swallowed. Can enter the lungs and cause damage. May be harmful if inhaled. May cause respiratory irritation. May cause nausea, vomiting, headache and other central nervous system effects. May cause eye and skin irritation. Contains material which can cause damage to the blood system, the liver and the kidneys. Possible cancer hazard - contains material which may cause cancer. Possible birth defect hazard - contains material that may cause birth defects, based on animal data.

Contains material that may be harmful in the environment.

Potential health effects:

Routes of exposure:
- Routes of entry skin & eye: May cause moderate skin irritation. Mild to moderate eye irritant.
- Routes of entry skin absorption: May be absorbed through the skin.
- Routes of entry inhalation: May cause irritation to the respiratory system. May cause central nervous system depression.
- Routes of entry ingestion: Aspiration hazard. May cause gastrointestinal irritation.

Target organs: Eyes, skin, respiratory system, central nervous system, blood system, liver, brain and kidneys.

Chronic effects:
Prolonged or repeated contact may cause drying, cracking and defatting of the skin. Repeated overexposure to naphthalene may cause destruction of red blood cells with anemia, fever, jaundice and kidney and liver damage.

For further information, please refer to section 11 of the MSDS.

Most important symptoms/effects, acute and delayed:
- May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
- Causes skin irritation. Contact may cause redness, swelling and a painful sensation. Causes eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
- May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties.
- May cause central nervous system depression. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.
Suspected of causing cancer. Symptoms may include persistent coughing, shortness of breath, coughing up blood and wheezing.
Suspected of damaging the unborn child. Symptoms may include reduced fetal weight, delayed ossification and persistent behavioural effects.
Causes damage to the blood system if swallowed. Contains: Naphthalene. Repeated overexposure to naphthalene may cause destruction of red blood cells with anemia, fever, and subsequent liver and kidney effects.
Prolonged overexposure may cause slight liver effects, such as increased organ weights.

**Potential environmental effects**  
Toxic to aquatic life with long lasting effects. Avoid release to the environment. See Section 12 for more environmental information.

### 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic solvent</td>
<td>178535-25-6</td>
<td>40.0 - 70.0</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), heavy aromatic</td>
<td>64742-94-5</td>
<td>10.0 - 25.0</td>
</tr>
<tr>
<td>1,3,5-Triethylbenzene</td>
<td>102-25-0</td>
<td>7.0 - 13.0</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>111-77-3</td>
<td>7.0 - 13.0</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>1.0 - 5.0</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>1.0 - 3.0</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>0.1 - 1.0</td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>108-67-8</td>
<td>0.1 - 0.5</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>0.1 - 0.4</td>
</tr>
</tbody>
</table>

### 4. First Aid Measures

#### First aid procedures

**Inhalation**  
Move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration. Get medical attention.

**Skin contact**  
Remove contaminated clothing. Wash off immediately with soap and plenty of water. If irritation persists, seek prompt medical attention. Wash contaminated clothing before reuse.

**Eye contact**  
Immediately flush eyes with running water for at least 15 minutes. Get medical attention.

**Ingestion**  
Do NOT induce vomiting. Seek immediate medical attention/advice. Never give anything by mouth if victim is unconscious.

**Notes to physician**  
Immediate medical attention is required. Aspiration hazard if swallowed - can enter lungs and cause damage.

#### General Information

Provide general supportive measures and treat symptomatically.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 5. Fire Fighting Measures

**Flammable properties**  
Flammable by WHMIS criteria.

**Extinguishing media**  
Dry chemical, foam, carbon dioxide and water fog.

**Suitable extinguishing media**  

**Unsuitable extinguishing media**  
Do not use water jet, as this may spread burning material.
Protection of firefighters
Specific hazards arising from the chemical: Vapours are heavier than air and collect in confined and low-lying areas. Material will float on water and can be re-ignited at the water’s surface. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Toxic fumes may be released during a fire.

Protective equipment for firefighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

Fire fighting equipment/instructions: Move containers from fire area if safe to do so. Use water spray to keep containers cool. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials.

Explosion data
Sensitivity to static discharge: Not expected to be sensitive to static discharge.
Sensitivity to mechanical impact: Not expected to be sensitive to mechanical impact.

Hazardous combustion products: Carbon oxides; Hydrocarbons; Aldehydes; Sulphur oxides; Nitrogen oxides (NOx); Other unidentified organic compounds.

General fire hazards: Combustible liquid and vapour. May be ignited by open flames and sparks.

6. Accidental Release Measures

Personal precautions: Restrict access to area until completion of clean-up. Keep all other personnel upwind and away from the spill/release. Ensure clean-up is conducted by trained personnel only. All persons dealing with the clean-up should wear the appropriate personal protective equipment. Refer to protective measures listed in sections 7 and 8.

Environmental precautions: Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent run-off into drains, sewers, or any natural waterway or drinking supply. Contact local authorities in case of spillage to drain/aquatic environment.

Methods and materials for containment and cleaning up: Ventilate the area. Stop the spill at source if it is safe to do so. Eliminate all ignition sources. Use only non-sparking tools and equipment in the clean-up process.

Clean-up methods - small spillage: Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand). Pick up and transfer to properly labelled containers. Never return spills in original containers for re-use. Contaminated absorbent material may pose the same hazards as the spilled product.

Clean-up methods - large spillage: Contain spilled liquid with non-combustible, inert absorbent material (e.g. sand). Remove liquid by pumps or vacuum equipment. Keep in properly labelled containers.

Notify the appropriate authorities as required. Refer to Section 13 for disposal of contaminated material.

Other information: Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling: Wear suitable protective equipment during handling. Wear protective gloves/clothing and eye/face protection. Use only outdoors or in a well-ventilated area. Do not ingest. Do not breathe mist or vapors. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks, and open flames. Keep away from incompatibles. Use caution when opening cap. Keep containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Wash thoroughly after handling. Keep out of the reach of children. Do not cut, weld, drill or grind on or near this container.
MATERIAL SAFETY DATA SHEET

Storage

Store in a cool, dry, well-ventilated area. Store away from areas of excessive heat, open flames, sparks, and other possible sources of ignition. Keep away from incompatibles. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Store locked up. Keep out of the reach of children. Do not store near any incompatible materials (see Section 10).

8. Exposure Controls / Personal Protection

Occupational exposure limits

U.S. OSHA Exposure Limits (29 CFR 1910)

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)</td>
<td>TWA 500 ppm (as petroleum distillates, naphtha)</td>
</tr>
<tr>
<td>Naphthalene (CAS 91-20-3)</td>
<td>TWA 10 ppm (50 mg/m³)</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene (CAS 95-63-6)</td>
<td>TWA 25 ppm (trimethylbenzene isomers) (final rule limit)</td>
</tr>
<tr>
<td>Xylene (CAS 1330-20-7)</td>
<td>TWA 100 ppm (435 mg/m³)</td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene (CAS 108-67-8)</td>
<td>TWA 25 ppm (trimethylbenzene isomers) (final rule limit)</td>
</tr>
<tr>
<td>Ethylbenzene (CAS 100-41-4)</td>
<td>TWA 100 ppm (435 mg/m³)</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene (CAS 91-20-3)</td>
<td>TWA 10 ppm (skin)</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene (CAS 95-63-6)</td>
<td>TWA 25 ppm (trimethylbenzene isomers)</td>
</tr>
<tr>
<td>Xylene (CAS 1330-20-7)</td>
<td>STEL 150 ppm</td>
</tr>
<tr>
<td>TWA 100 ppm</td>
<td></td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene (CAS 108-67-8)</td>
<td>TWA 25 ppm (trimethylbenzene isomers)</td>
</tr>
<tr>
<td>Ethylbenzene (CAS 100-41-4)</td>
<td>TWA 20 ppm</td>
</tr>
</tbody>
</table>

Biological limit values

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene (CAS 91-20-3)</td>
<td>Parameter 1-Naphthal with hydrolysis plus 2-Naphthol with hydrolysis (nonquantitative, nonspecific)</td>
</tr>
<tr>
<td>Xylene (CAS 1330-20-7)</td>
<td>1.5 g/g, Creatinine; Medium: Urine; Parameter: Methylhippuric acid</td>
</tr>
<tr>
<td>Ethylbenzene (CAS 100-41-4)</td>
<td>0.15 g/g Creatinine, Medium: Urine, Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)</td>
</tr>
</tbody>
</table>

US ACGIH Threshold Limit Values: Skin designation

Can be absorbed through skin

Engineering controls

Use only outdoors or in a well-ventilated area. 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.

Personal protective equipment

Wear as appropriate: Tightly fitting safety goggles; Safety glasses with side-shields. A full face shield may also be necessary.
Skin protection

Wear protective gloves. Advice should be sought from glove suppliers. Wear protective clothing to cover as much of the exposed skin area as possible. Where extensive exposure to product is possible, use resistant overalls, apron and boots to prevent contact.

Respiratory protection

Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Seek advice from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with CSA Z94.4-02.

Other protection

Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

9. Physical and chemical properties

Appearance

| Physical state | Liquid. |
| Form           | Thin liquid. |
| Colour         | amber |

Odour

Petroleum odour.

Odour threshold

N/Av

pH

N/Av

Melting point /freezing point

N/Av

Initial boiling point and boiling range

> 137°C (279°F) (based on ingredients)

Flash point

> 61°C (141.8°F) (based on ingredients)

Pensky Martens Closed Cup

Evaporation rate

N/Av

Flammability (solid, gas)

N/Ap

Lower flammability/explosive limit

N/Av

Upper flammability/explosive limit

N/Av

Vapour pressure

N/Av

Vapour density

N/Av

Relative density

0.9 @ 15.6°C (60°F)

Solubility(ies)

Other solubility(ies)

N/Av

Solubility (water)

Insoluble.

Partition coefficient (n-octanol/water)

N/Av

Auto-ignition temperature

N/Av

Decomposition temperature

N/Av

Viscosity

N/Av

Other information

Explosive properties

Not explosive

Oxidizing properties

None known.

Specific gravity

0.9 @ 15.6°C (60°F)

VOC

N/Av

Volatilities %

N/Av

Other physical/chemical data

No additional information.

10. Stability and reactivity

Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.
**Chemical stability**
Stable under the recommended storage and handling conditions prescribed.

**Possibility of hazardous reactions**
No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.

**Conditions to avoid**
Avoid excessive heat, sparks and open flame. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.

**Incompatible materials**
Strong oxidizing agents; Strong acids; Strong bases; Halogenated materials.

**Hazardous decomposition products**
None known, refer to hazardous combustion products in Section 5.

### 11. Toxicological information

#### Toxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aromatic solvent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>N/Av</td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>N/Av</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg (No mortality)</td>
</tr>
<tr>
<td><strong>Solvent naphtha (petroleum), heavy aromatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>&gt; 3160 mg/kg</td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>&gt; 17.1 mg/L (mist)</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 6000 mg/kg</td>
</tr>
<tr>
<td><strong>1,3,5-Triethylbenzene</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>N/Av</td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>N/Av</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>N/Av</td>
</tr>
<tr>
<td><strong>Diethylene glycol monomethyl ether</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>9404 mg/kg</td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>&gt; 50 mg/L (aerosol)</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>6830 mg/kg</td>
</tr>
<tr>
<td><strong>Naphthalene</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dermal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>&gt; 20 000 mg/kg</td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>N/Av</td>
</tr>
</tbody>
</table>
MATERIAL SAFETY DATA SHEET

LD50 Rat 490 mg/kg (rat)
533 mg/kg (mouse)

1,2,4-Trimethylbenzene

**Acute**
**Dermal**
LD50 Rabbit > 3160 mg/kg
LC50 Rat 18 mg/L (vapour)
Oral LD50 Rat 5000 mg/kg

Xylene

**Acute**
**Dermal**
LD50 Rabbit 12 180 mg/kg
LC50 Rat 6350 ppm (27.6 mg/L) (vapours)
Oral LD50 Rat 3253 mg/kg

1,3,5-Trimethylbenzene

**Acute**
**Dermal**
LD50 Rabbit > 3160 mg/kg
LC50 Rat 24 mg/L (vapour)
Oral LD50 Rat 23 000 mg/kg

Ethylbenzene

**Acute**
**Dermal**
LD50 Rabbit 15 380 mg/kg
LC50 Rat 4000 ppm (17.4 mg/L) (vapour)
Oral LD50 Rat 3500 mg/kg

**Acute effects**
May be harmful or fatal if swallowed. Causes mild to moderate skin and eye irritation. May cause respiratory irritation. May cause central nervous system depression. Product (based on similar blends): LD50 (Rat, oral): > 5000 mg/kg (Supplier); LD50 (Rabbit, dermal): > 2000 mg/kg (Supplier). See data above for individual ingredient acute toxicity.

**Sensitization**
Not expected to be a skin or respiratory sensitizer.

**Chronic effects**
Prolonged or repeated contact may cause drying, cracking and defatting of the skin. Repeated overexposure to naphthalene may cause destruction of red blood cells with anaemia, fever, jaundice and kidney and liver damage. For further information, please refer to section 11 of the MSDS.

**Carcinogenicity**
Contains: Naphthalene; Ethylbenzene. Naphthalene is classified as carcinogenic by IARC (Group 2B) and NTP (Group 2 - Reasonably anticipated). Ethylbenzene is classified as possibly carcinogenic by IARC (Group 2B) and the ACGIH (Category A3). See below for ingredients present on regulatory lists.

**IARC Monographs. Overall Evaluation of Carcinogenicity**
- Naphthalene(CAS 91-20-3) Group 2B (Possibly Carcinogenic to Humans)
- Xylene(CAS 1330-20-7) Group 3 (Not Classifiable)
- Ethylbenzene(CAS 100-41-4) Group 2B (Possibly Carcinogenic to Humans)

**ACGIH Carcinogenicity**
- Naphthalene(CAS 91-20-3) A4 - Not Classifiable as a Human Carcinogen
Xylene (CAS 1330-20-7)  
Ethylbenzene (CAS 100-41-4)

**A4 - Not Classifiable as a Human Carcinogen**

**A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans**

**Skin corrosion/irritation**  
May cause moderate skin irritation.

**Serious eye damage/irritation**  
Mild to moderate eye irritant.

**Mutagenicity**  
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Reproductive effects**  
Not expected to cause reproductive effects.

**Teratogenicity**  
This product contains Diethylene glycol monomethyl ether. Diethylene glycol monomethyl ether was found to be fetotoxic, embryotoxic and/or teratogenic in the absence of maternal toxicity, based on animal data. This product contains Xylene. Xylene may cause fetotoxic effects at doses which are not maternally toxic, based on animal data.

**Most important symptoms/effects, acute and delayed**  
May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.  
Causes skin irritation. Contact may cause redness, swelling and a painful sensation.  
Causes eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.  
May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties.  
May cause central nervous system depression. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.  
Suspected of causing cancer. Symptoms may include persistent coughing, shortness of breath, coughing up blood and wheezing.  
Suspected of damaging the unborn child. Symptoms may include reduced fetal weight, delayed ossification and persistent behavioural effects.  
Causes damage to the blood system if swallowed. Contains: Naphthalene. Repeated overexposure to naphthalene may cause destruction of red blood cells with anemia, fever, and subsequent liver and kidney effects.  
Prolonged overexposure may cause slight liver effects, such as increased organ weights.

**Further information**  
None known or reported by the manufacturer.

### 12. Ecological information

**Ecotoxicity data:**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No</th>
<th>LC50 / 96h</th>
<th>NOEC / 21 day</th>
<th>M Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic solvent</td>
<td>178535-25-6</td>
<td>N/Av</td>
<td>N/Av</td>
<td>None.</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), heavy aromatic</td>
<td>64742-94-5</td>
<td>3.6 mg/L (Rainbow trout)</td>
<td>N/Av</td>
<td>None.</td>
</tr>
<tr>
<td>1,3,5-Triethylbenzene</td>
<td>102-25-0</td>
<td>4.15 mg/L (Fathead minnow) (Read-across)</td>
<td>N/Av</td>
<td>None.</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>111-77-3</td>
<td>5700 mg/L (Fathead minnow)</td>
<td>N/Av</td>
<td>None.</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.96 mg/L (pink salmon)</td>
<td>0.12 mg/L/40 days</td>
<td>1</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>7.72 mg/L (Fathead minnow)</td>
<td>N/Av</td>
<td>None.</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>8.2 mg/L (Rainbow trout)</td>
<td>N/Av</td>
<td>None.</td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>108-67-8</td>
<td>12.52 mg/L (Goldfish)</td>
<td>N/Av</td>
<td>None.</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>4.2 mg/L (Rainbow trout)</td>
<td>1.13 mg/L/30 days</td>
<td>None.</td>
</tr>
</tbody>
</table>
MATERIAL SAFETY DATA SHEET

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No</th>
<th>Toxicity to Daphnia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>EC50 / 48h</td>
</tr>
<tr>
<td>Aromatic solvent</td>
<td>178535-25-6</td>
<td>1.3 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), heavy aromatic</td>
<td>64742-94-5</td>
<td>1.1 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>1,3,5-Triethylbenzene</td>
<td>102-25-0</td>
<td>N/Av</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>111-77-3</td>
<td>1192 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>3.4 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>3.6 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>3.2 - 9.56 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>108-67-8</td>
<td>6 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>1.81 mg/L (Daphnia magna)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No</th>
<th>Toxicity to Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>EC50 / 96h or 72h</td>
</tr>
<tr>
<td>Aromatic solvent</td>
<td>178535-25-6</td>
<td>6.2 mg/L/72hr (Green algae)</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), heavy aromatic</td>
<td>64742-94-5</td>
<td>7.2 mg/L/72hr (Green algae)</td>
</tr>
<tr>
<td>1,3,5-Triethylbenzene</td>
<td>102-25-0</td>
<td>N/Av</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether</td>
<td>111-77-3</td>
<td>&gt; 500 mg/L/72hr (Green algae)</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>0.4 mg/L/72hr Skeletonema costatum (Diatom)</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>2.358 mg/L/96hr (Green algae)</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>3.2 - 4.9 mg/L/72hr (Green algae)</td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>108-67-8</td>
<td>3.191 mg/L/96hr (Green algae)</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>3.6 mg/L/96hr (Green algae)</td>
</tr>
</tbody>
</table>

Ecotoxicity
Toxic to aquatic life with long lasting effects. No data is available on the product itself. See the above tables for individual ingredient ecotoxicity data.

Environmental effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Aquatic toxicity
No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

Persistence and degradability
No data is available on the product itself. The following ingredients are considered to be readily biodegradable: Diethylene glycol monomethyl ether.
Contains the following chemicals which are considered to be inherently biodegradable: Xylene, Ethylbenzene.

Bioaccumulation / accumulation
No data is available on the product itself. See the following data for ingredient information.
# MATERIAL SAFETY DATA SHEET

<table>
<thead>
<tr>
<th>Components</th>
<th>Partition coefficient n-octanol/water (log Kow)</th>
<th>Bioconcentration factor (BCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic solvent (CAS 178535-25-6)</td>
<td>&gt; 3.43, &lt; 6.5</td>
<td>N/Av</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), heavy aromatic (CAS 64742-94-5)</td>
<td>&gt; 3, to &lt; 6.5</td>
<td>N/Av</td>
</tr>
<tr>
<td>1,3,5-Triethylbenzene (CAS 102-25-0)</td>
<td>4.757</td>
<td>N/Av</td>
</tr>
<tr>
<td>Diethylene glycol monomethyl ether (CAS 111-77-3)</td>
<td>- 1.18</td>
<td>3</td>
</tr>
<tr>
<td>Naphthalene (CAS 91-20-3)</td>
<td>3.7</td>
<td>427 (Fathead minnow)</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene (CAS 95-63-6)</td>
<td>3.78</td>
<td>31 - 275</td>
</tr>
<tr>
<td>Xylene (CAS 1330-20-7)</td>
<td>3.12 - 3.2</td>
<td>50 - 58</td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene (CAS 108-67-8)</td>
<td>3.6 - 3.93</td>
<td>28 - 328</td>
</tr>
<tr>
<td>Ethylbenzene (CAS 100-41-4)</td>
<td>3.15</td>
<td>1.1 - 1.5</td>
</tr>
</tbody>
</table>

**Mobility in soil**

No data is available on the product itself.

## 13. Disposal consideration

**Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable federal, state, provincial and local regulations.

**Waste from residues / unused products**

Dispose of contents/container in accordance with local regulation. Empty containers should be disposed of in accordance with the requirements of the following legislation:

**Contaminated packaging**

Empty containers should be taken for local recycling or waste disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### TDG

- **UN Number**: UN3082
- **UN proper shipping name**: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triethylbenzene; Naphthalene)
- **Transport hazard class(es)**
  - **Class**: 9
  - **Subsidiary risk**: None
- **Packaging group**: III
- **Environmental hazards**: Yes
- **Special precautions for user**: This material may be shipped as an exempted marine pollutant in accordance with TDG Section 1.45.1 and Special Provision 99. Read safety instructions, SDS and emergency procedures before handling.

### ICAO/IATA

- **UN Number**: UN3082
- **UN proper shipping name**: Environmentally hazardous substance, liquid, n.o.s. (Triethylbenzene; Naphthalene)
- **Transport hazard class(es)**
  - **Class**: 9
  - **Subsidiary risk**: None
- **Packaging group**: III
Environmental hazards | Yes
---|---
ERG Code | 9L

**Special precautions for user**
Read safety instructions, SDS and emergency procedures before handling. Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material.

**Other information**

| Passenger and cargo aircraft | Allowed |
| Cargo aircraft only          | Allowed |

**IMDG**

| UN Number | UN3082 |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triethylbenzene; Naphthalene) |
| Transport hazard class(es) | Class 9 |
| Subsidiary risk | None |
| Packaging group | III |
| Environmental hazards | Yes |
| Marine pollutant | Yes |
| EmS | F-A; S-F |

**Special precautions for user**
Read safety instructions, SDS and emergency procedures before handling.

**General information**
This product meets the criteria for an environmentally hazardous material according to the IMDG Code. See Section 12 for more environmental information.

**15. Regulatory information**

**Canadian regulations**
Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

**WHMIS status**
Controlled

**WHMIS classification**
B3 - Combustible Liquid
D2A - Other toxic effects - Very toxic
D2B - Other Toxic Effects - Toxic

**WHMIS labeling**

**International Inventories**

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

Components listed below are present on the following International Inventory lists:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>European EINECs</th>
<th>Australia AICS</th>
<th>Philippines PICCS</th>
<th>Japan ENCS</th>
<th>Korea KECI/KECL</th>
<th>China IECSC</th>
<th>NewZealand IOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic solvent</td>
<td>178535-25-6</td>
<td>700-371-5</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>
MATERIAL SAFETY DATA SHEET

Solvent naphtha (petroleum), heavy aromatic
64742-94-5
265-198-5
Present
Present
(9)-2578
KE-31656
Present
May be used as a single component chemical under an appropriate group standard

1,3,5-Triethylbenzene
102-25-0
203-017-3
Not listed
Present
(3)-3427
Not listed
Not listed
May be used as a component in a product covered by a group standard, but is not approved for use as a chemical in its own right.

Diethylene glycol monomethyl ether
111-77-3
203-906-6
Present
Present
(7)-97;(2)-422;(2)-2979
KE-23278
Present
HSR002752

Naphthalene
91-20-3
202-049-5
Present
Present
(4)-311
KE-25545
Present
HSR001287

1,2,4-Trimethylbenzene
95-63-6
202-436-9
Present
Present
(3)-7;(3)-3427
KE-34410
Present
HSR001382

Xylene
1330-20-7
215-535-7
Present
Present
(3)-60;(3)-3
KE-35427
Present
HSR000983

1,3,5-Trimethylbenzene
108-67-8
203-604-4
Present
Present
(3)-7;(3)-3427
KE-34411
Present
HSR001229

Ethylbenzene
100-41-4
202-849-4
Present
Present
(3)-60;(3)-28
KE-13532
Present
HSR001151

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

NFPA Rating

Health: 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious
Flammability: 2  Instability: 0
Special Hazards: None.

HMIS Rating

Health: * - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious
Flammability: * - 2
Reactivity: 0

Issue date
05/30/2015

Version #
1

Legend
ACGIH: American Conference of Governmental Industrial Hygienists
AICS: Australian Inventory of Chemical Substances
CAS: Chemical Abstract Services
CEPA: Canadian Environmental Protection Act
COC: Cleveland Open Cup
CSA: Canadian Standards Association
EC50: Effective Concentration 50%.
EINECS: European Inventory of Existing Commercial chemical Substances
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
IBC: Intermediate Bulk Container
ICAO: International Civil Aviation Organisation
IECSC: Inventory of Existing Chemical Substances
IMDG: International Maritime Dangerous Goods
Inh: Inhalation
IOC: Inventory of Chemicals
KECI: Korean Existing Chemicals Inventory
KECL: Korean Existing Chemicals List
LC: Lethal Concentration
LD: Lethal Dose
MSDS: Material Safety Data Sheet
N/A: Not Applicable
N/A: Not Available
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
MATERIAL SAFETY DATA SHEET

NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
RTECS: Registry of Toxic Effects of Chemical Substances
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

Bibliography
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2015.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2015 (Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.

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Prepared by: ICC The Compliance Center Inc.
http://www.thecompliancecenter.com

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