1. Identification

Product identifier Cold Flow™ Anti-Gel with Lubricity

Other means of identification

Product Code No. 05612 (Item# 1003830)

Recommended use Diesel fuel additive for cold weather

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufactured or sold by:

Company name CRC Industries, Inc.

Address 885 Louis Dr.
Warminster, PA 18974 US

Telephone

General Information 215-674-4300
Technical Assistance 800-521-3168
Customer Service 800-272-4620
24-Hour Emergency (CHEMTREC) 800-424-9300 (US) 703-527-3887 (International)

Website www.crcindustries.com

2. Hazard(s) identification

Physical hazards

Flammable liquids Category 3

Health hazards

Acute toxicity, inhalation Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
Carcinogenicity Category 2
Reproductive toxicity (the unborn child) Category 2
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation
Specific target organ toxicity, single exposure Category 3 narcotic effects
Specific target organ toxicity, repeated exposure Category 2 (auditory system, central nervous system, kidney, liver, peripheral nervous system)
Aspiration hazard Category 1

Environmental hazards

Hazardous to the aquatic environment, acute hazard Category 2
Hazardous to the aquatic environment, long-term hazard Category 2

OSHA defined hazards

Not classified.

Label elements

Signal word Danger

Hazard statement Flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging the unborn child. May cause damage to organs (auditory system, central nervous system, kidney, liver, peripheral nervous system) through prolonged or repeated exposure. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Use with adequate ventilation. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. If you experience any symptoms listed on this label, increase ventilation or leave the area. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. 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 exposed or concerned: Get medical advice/attention. In case of fire: Do not use water jet as an extinguisher, as this will spread the fire. Collect spillage.

Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

Eazard(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.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>xylene</td>
<td></td>
<td>1330-20-7</td>
<td>40 - 50</td>
</tr>
<tr>
<td>solvent naphtha (petroleum), heavy arom.</td>
<td></td>
<td>64742-94-5</td>
<td>20 - 30</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td></td>
<td>100-41-4</td>
<td>10 - 20</td>
</tr>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td></td>
<td>95-63-6</td>
<td>3 - 5</td>
</tr>
<tr>
<td>toluene</td>
<td></td>
<td>108-88-3</td>
<td>3 - 5</td>
</tr>
<tr>
<td>naphthalene</td>
<td></td>
<td>91-20-3</td>
<td>1 - 3</td>
</tr>
<tr>
<td>oleic acid</td>
<td></td>
<td>112-80-1</td>
<td>1 - 3</td>
</tr>
<tr>
<td>cumene</td>
<td></td>
<td>98-82-8</td>
<td>&lt; 1</td>
</tr>
</tbody>
</table>

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed


Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. 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. Wash contaminated clothing before reuse.
5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

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

Specific hazards arising from the chemical
Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

General fire hazards
Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions
Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, see the product label.

Conditions for safe storage, including any incompatibilities
Keep away from heat, sparks and open flame. Eliminate sources of ignition. Avoid spark promoters. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).
### 8. Exposure controls/personal protection

**Occupational exposure limits**

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>cumene (CAS 98-82-8)</td>
<td>PEL</td>
<td>245 mg/m³</td>
</tr>
<tr>
<td>ethylbenzene (CAS 100-41-4)</td>
<td>PEL</td>
<td>435 mg/m³</td>
</tr>
<tr>
<td>naphthalene (CAS 91-20-3)</td>
<td>PEL</td>
<td>50 mg/m³</td>
</tr>
<tr>
<td>solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)</td>
<td>PEL</td>
<td>400 mg/m³</td>
</tr>
<tr>
<td>xylene (CAS 1330-20-7)</td>
<td>PEL</td>
<td>435 mg/m³</td>
</tr>
</tbody>
</table>

**US. OSHA Table Z-2 (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>toluene (CAS 108-88-3)</td>
<td>Ceiling</td>
<td>300 ppm</td>
</tr>
<tr>
<td>TWA</td>
<td>200 ppm</td>
<td></td>
</tr>
</tbody>
</table>

**US. ACGIH Threshold Limit Values**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-trimethylbenzene (CAS 95-63-6)</td>
<td>TWA</td>
<td>25 ppm</td>
<td></td>
</tr>
<tr>
<td>cumene (CAS 98-82-8)</td>
<td>TWA</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td>ethylbenzene (CAS 100-41-4)</td>
<td>TWA</td>
<td>20 ppm</td>
<td></td>
</tr>
<tr>
<td>naphthalene (CAS 91-20-3)</td>
<td>TWA</td>
<td>10 ppm</td>
<td></td>
</tr>
<tr>
<td>solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)</td>
<td>TWA</td>
<td>200 mg/m³</td>
<td>Non-aerosol.</td>
</tr>
<tr>
<td>toluene (CAS 108-88-3)</td>
<td>TWA</td>
<td>20 ppm</td>
<td></td>
</tr>
<tr>
<td>xylene (CAS 1330-20-7)</td>
<td>STEL</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td>100 ppm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**US. NIOSH: Pocket Guide to Chemical Hazards**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-trimethylbenzene (CAS 95-63-6)</td>
<td>TWA</td>
<td>125 mg/m³</td>
</tr>
<tr>
<td>cumene (CAS 98-82-8)</td>
<td>TWA</td>
<td>25 ppm</td>
</tr>
<tr>
<td>ethylbenzene (CAS 100-41-4)</td>
<td>STEL</td>
<td>125 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>435 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td>naphthalene (CAS 91-20-3)</td>
<td>STEL</td>
<td>75 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>15 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>50 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>10 ppm</td>
</tr>
<tr>
<td>toluene (CAS 108-88-3)</td>
<td>STEL</td>
<td>560 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>150 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>375 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td>xylene (CAS 1330-20-7)</td>
<td>STEL</td>
<td>655 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>150 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>435 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
</tbody>
</table>
### Biological limit values

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>ethylbenzene (CAS 100-41-4)</td>
<td>0.15 g/g</td>
<td>Sum of mandelic acid and phenylglyoxylic acid</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
<tr>
<td>toluene (CAS 108-88-3)</td>
<td>0.3 mg/g</td>
<td>o-Cresol, with hydrolysis</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>0.03 mg/l</td>
<td>Toluene</td>
<td>Urine</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>0.02 mg/l</td>
<td>Toluene</td>
<td>Blood</td>
<td>*</td>
</tr>
<tr>
<td>xylene (CAS 1330-20-7)</td>
<td>1.5 g/g</td>
<td>Methylhippuric acids</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

### Exposure guidelines

**US - California OELs: Skin designation**
- Cumene (CAS 98-82-8)
- Naphthalene (CAS 91-20-3)
- Toluene (CAS 108-88-3)

**US - Minnesota Haz Subs: Skin designation applies**
- Cumene (CAS 98-82-8)
- Toluene (CAS 108-88-3)

**US - Tennessee OELs: Skin designation**
- Cumene (CAS 98-82-8)

**US ACGIH Threshold Limit Values: Skin designation**
- Naphthalene (CAS 91-20-3)
- Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**
- Cumene (CAS 98-82-8)

**Appropriate engineering controls**
Explosion-proof general and local exhaust ventilation. 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 wash facilities and emergency shower should be available when handling this product.

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

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

**Skin protection**
- **Hand protection**
  - Wear protective gloves such as: Nitrile. Neoprene. Polyvinyl chloride (PVC).
- **Other**
  - Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection**
If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved respirator cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies. Air monitoring is needed to determine actual employee exposure levels.

**Thermal hazards**
Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**
When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

### 9. Physical and chemical properties

**Appearance**
- **Physical state**: Liquid.
- **Form**: Liquid.
- **Color**: Amber.
Odor: Petroleum.
Odor threshold: Not available.

pH: Not available.

Melting point/freezing point: -52.6 °F (-47 °C) estimated
Initial boiling point and boiling range: 278.6 °F (137 °C) estimated
Flash point: 87 °F (30.6 °C) Setaflash
Evaporation rate: Slow.

Flammability (solid, gas): Not available.

Upper/lower flammability or explosive limits:
- Flammability limit - lower (%): 0.5 % estimated
- Flammability limit - upper (%): 6.8 % estimated

Vapor pressure: 7.5 hPa estimated
Vapor density: > 1 (air = 1)
Relative density: 0.88

Solubility (water): Negligible.
Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature: 494.6 °F (257 °C) estimated
Decomposition temperature: Not available.
Percent volatile: 97 % estimated

10. Stability and reactivity
Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability: Material is stable under normal conditions.
Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.
Conditions to avoid: Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.
Hazardous decomposition products: Carbon oxides.

11. Toxicological information
Information on likely routes of exposure:
- Inhalation: Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
- Skin contact: Causes skin irritation.
- Eye contact: Causes serious eye irritation.
- Ingestion: Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics:

Information on toxicological effects:
- Acute toxicity: May be fatal if swallowed and enters airways. Harmful if inhaled.

Components | Species | Test Results
--- | --- | ---
1,2,4-trimethylbenzene (CAS 95-63-6) | Rabbit | LD50 > 3160 mg/kg

Material name: Cold Flow™ Anti-Gel with Lubricity
No. 05612 (Item# 1003830)  Version #: 02  Revision date: 02-23-2018  Issue date: 04-06-2015
<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>cumene (CAS 98-82-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>1400 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ethylbenzene (CAS 100-41-4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>17.2 mg/l, 4 hours</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td>3500 mg/kg</td>
</tr>
<tr>
<td>naphthalene (CAS 91-20-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>490 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>toluene (CAS 108-88-3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>12.5 mg/l, 4 hours</td>
</tr>
<tr>
<td>xylene (CAS 1330-20-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>3500 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation** Causes skin irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

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

**Carcinogenicity** Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogenicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>cumene (CAS 98-82-8)</td>
<td>2B Possibly carcinogenic to humans.</td>
</tr>
<tr>
<td>ethylbenzene (CAS 100-41-4)</td>
<td>2B Possibly carcinogenic to humans.</td>
</tr>
<tr>
<td>naphthalene (CAS 91-20-3)</td>
<td>2B Possibly carcinogenic to humans.</td>
</tr>
<tr>
<td>toluene (CAS 108-88-3)</td>
<td>3 Not classifiable as to carcinogenicity to humans.</td>
</tr>
<tr>
<td>xylene (CAS 1330-20-7)</td>
<td>3 Not classifiable as to carcinogenicity to humans.</td>
</tr>
</tbody>
</table>

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogenicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>cumene (CAS 98-82-8)</td>
<td>Reasonably Anticipated to be a Human Carcinogen.</td>
</tr>
<tr>
<td>naphthalene (CAS 91-20-3)</td>
<td>Reasonably Anticipated to be a Human Carcinogen.</td>
</tr>
</tbody>
</table>

**Reproductive toxicity** Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging the unborn child.

**Specific target organ toxicity - single exposure** May cause respiratory irritation. May cause drowsiness and dizziness.

**Specific target organ toxicity - repeated exposure** May cause damage to organs (auditory system, central nervous system, kidney, liver, peripheral nervous system) through prolonged or repeated exposure.
**Aspiration hazard**
May be fatal if swallowed and enters airways. If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death.

**Chronic effects**
May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

### 12. Ecological information

#### Ecotoxicity
Toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-trimethylbenzene (CAS 95-63-6)</td>
<td><strong>Aquatic</strong></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td>Cumene (CAS 98-82-8)</td>
<td><strong>Aquatic</strong></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Brine shrimp (Artemia sp.)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>Ethylbenzene (CAS 100-41-4)</td>
<td><strong>Aquatic</strong></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
</tr>
<tr>
<td>Naphthalene (CAS 91-20-3)</td>
<td><strong>Aquatic</strong></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>Oleic acid (CAS 112-80-1)</td>
<td><strong>Aquatic</strong></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)</td>
<td><strong>Aquatic</strong></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td>Fish</td>
<td>EC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td></td>
<td>LC50</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>Toluene (CAS 108-88-3)</td>
<td><strong>Acute</strong></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>EC50</td>
<td>Pseudokirchnerella subcapitata</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Coho salmon, silver salmon (Oncorhynchus kisutch)</td>
</tr>
</tbody>
</table>
Components | Species | Test Results
---|---|---
**xylene (CAS 1330-20-7)**
**Aquatic**
Fish | LC50 | Rainbow trout, donaldson trout (Oncorhynchus mykiss) 6.702 - 10.032 mg/l, 96 hours
**Acute**
Crustacea | EC50 | Daphnia magna 3.82 mg/l, 48 hours

**Persistence and degradability**
No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential**
- **Partition coefficient n-octanol / water (log Kow)**
  - cumene: 3.66
  - ethylbenzene: 3.15
  - naphthalene: 3.3
  - toluene: 2.73
  - xylene: 3.12 - 3.2
- **Bioconcentration factor (BCF)**
  - ethylbenzene: 1
  - toluene: 90
  - xylene: 23.99

**Mobility in soil**
No data available.

**Other adverse effects**
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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**13. Disposal considerations**

**Hazardous waste code**
D001: Waste Flammable material with a flash point <140 F

**Contaminated packaging**
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**Disposal instructions**
If discarded, this product is considered a RCRA ignitable waste, D001. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.

**14. Transport information**

**DOT**
- **UN number**: UN1993
- **UN proper shipping name**: Flammable liquids, n.o.s. (xylene RQ = 236 LBS, petroleum naphtha), Limited Quantity
- **Transport hazard class(es)**
  - Class: 3
  - Subsidiary risk: -
  - Label(s): 3
  - Packing group: III
- **Special precautions for user**
  - Read safety instructions, SDS and emergency procedures before handling.
- **Special provisions**
  - B1, B52, IB3, T4, TP1, TP29
- **Packaging exceptions**
  - 150
- **Packaging non bulk**
  - 203
- **Packaging bulk**
  - 242

**IATA**
- **UN number**: UN1993
- **UN proper shipping name**: Flammable liquid, n.o.s. (xylene, petroleum naphtha), Limited Quantity
- **Transport hazard class(es)**
  - Class: 3
  - Subsidiary risk: -
  - Packing group: III
  - ERG Code: 3L
- **Special precautions for user**
  - Read safety instructions, SDS and emergency procedures before handling.

**Other information**
- **Passenger and cargo aircraft**
  - Allowed with restrictions.
- **Cargo aircraft only**
  - Allowed with restrictions.
IMDG

UN number 
UN1993

UN proper shipping name FLAMMABLE LIQUID, N.O.S. (xylene, petroleum naphtha), Limited Quantity

Transport hazard class(es)
Class 3
Subsidiary risk -
Packing group III

Environmental hazards
Marine pollutant No.
EmS F-E, S-E

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

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance
1,2,4-trimethylbenzene (CAS 95-63-6)
cumene (CAS 98-82-8)
ethylbenzene (CAS 100-41-4)
naphthalene (CAS 91-20-3)
toluene (CAS 108-88-3)
xylene (CAS 1330-20-7)

CERCLA Hazardous Substance List (40 CFR 302.4)
cumene (CAS 98-82-8) Listed.
ethylbenzene (CAS 100-41-4) Listed.
naphthalene (CAS 91-20-3) Listed.
toluene (CAS 108-88-3) Listed.
xylene (CAS 1330-20-7) Listed.

CERCLA Hazardous Substances: Reportable quantity

cumene (CAS 98-82-8) 5000 LBS
ethylbenzene (CAS 100-41-4) 1000 LBS
naphthalene (CAS 91-20-3) 100 LBS
toluene (CAS 108-88-3) 1000 LBS
xylene (CAS 1330-20-7) 100 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
ethylbenzene (CAS 100-41-4)
naphthalene (CAS 91-20-3)
toluene (CAS 108-88-3)
xylene (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number
toluene (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
toluene (CAS 108-88-3) 35 %WV
DEA Exempt Chemical Mixtures Code Number

toluene (CAS 108-88-3) 594

Food and Drug Administration (FDA)

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Classified hazard categories
- Flammable (gases, aerosols, liquids, or solids)
- Acute toxicity (any route of exposure)
- Skin corrosion or irritation
- Serious eye damage or eye irritation
- Carcinogenicity
- Reproductive toxicity
- Specific target organ toxicity (single or repeated exposure)
- Aspiration hazard
- Hazard not otherwise classified (HNOC)

SARA 302 Extremely hazardous substance

Not listed.

SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-trimethylbenzene</td>
<td>95-63-6</td>
<td>3 - 5</td>
</tr>
<tr>
<td>cumene</td>
<td>98-82-8</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>ethylbenzene</td>
<td>100-41-4</td>
<td>10 - 20</td>
</tr>
<tr>
<td>naphthalene</td>
<td>91-20-3</td>
<td>1 - 3</td>
</tr>
<tr>
<td>toluene</td>
<td>108-88-3</td>
<td>3 - 5</td>
</tr>
<tr>
<td>xylene</td>
<td>1330-20-7</td>
<td>40 - 50</td>
</tr>
</tbody>
</table>

US state regulations

US. New Jersey Worker and Community Right-to-Know Act
- 1,2,4-trimethylbenzene (CAS 95-63-6)
- cumene (CAS 98-82-8)
- ethylbenzene (CAS 100-41-4)
- naphthalene (CAS 91-20-3)
- toluene (CAS 108-88-3)
- xylene (CAS 1330-20-7)

US. Massachusetts RTK - Substance List
- 1,2,4-trimethylbenzene (CAS 95-63-6)
- cumene (CAS 98-82-8)
- ethylbenzene (CAS 100-41-4)
- naphthalene (CAS 91-20-3)
- toluene (CAS 108-88-3)
- xylene (CAS 1330-20-7)

US. Pennsylvania Worker and Community Right-to-Know Law
- 1,2,4-trimethylbenzene (CAS 95-63-6)
- cumene (CAS 98-82-8)
- ethylbenzene (CAS 100-41-4)
- naphthalene (CAS 91-20-3)
- oleic acid (CAS 112-80-1)
- toluene (CAS 108-88-3)
- xylene (CAS 1330-20-7)

US. Rhode Island RTK
- 1,2,4-trimethylbenzene (CAS 95-63-6)
- cumene (CAS 98-82-8)
- ethylbenzene (CAS 100-41-4)
- naphthalene (CAS 91-20-3)
- oleic acid (CAS 112-80-1)
- toluene (CAS 108-88-3)
- xylene (CAS 1330-20-7)

California Proposition 65

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

California Proposition 65 - CRT: Listed date/Carcinogenic substance
- benzene (CAS 71-43-2) Listed: February 27, 1987
cumene (CAS 98-82-8) Listed: April 6, 2010
ethylbenzene (CAS 100-41-4) Listed: June 11, 2004
naphthalene (CAS 91-20-3) Listed: April 19, 2002

California Proposition 65 - CRT: Listed date/Developmental toxin
benzene (CAS 71-43-2) Listed: December 26, 1997
toluene (CAS 108-88-3) Listed: January 1, 1991

California Proposition 65 - CRT: Listed date/Male reproductive toxin
benzene (CAS 71-43-2) Listed: December 26, 1997

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
1,2,4-trimethylbenzene (CAS 95-63-6)
cumene (CAS 98-82-8)
ethylbenzene (CAS 100-41-4)
naphthalene (CAS 91-20-3)
toluene (CAS 108-88-3)
xylene (CAS 1330-20-7)

Volatile organic compounds (VOC) regulations

<table>
<thead>
<tr>
<th>EPA</th>
<th>VOC content (40 CFR 51.100(s))</th>
<th>96.4 %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Consumer products (40 CFR 59, Subpt. C)</td>
<td>Not regulated</td>
</tr>
<tr>
<td>State</td>
<td>Consumer products</td>
<td>Not regulated</td>
</tr>
<tr>
<td></td>
<td>VOC content (CA)</td>
<td>96.4 %</td>
</tr>
<tr>
<td></td>
<td>VOC content (OTC)</td>
<td>96.4 %</td>
</tr>
</tbody>
</table>

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
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<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Toxic Chemical Substances (TCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

| Issue date | 04-06-2015 |
| Revision date | 02-23-2018 |
| Prepared by | Allison Yoon |
| Version # | 02 |
| Further information | CRC # 929/1002939 |
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Revision information
This document has undergone significant changes and should be reviewed in its entirety.