SAFETY DATA SHEET
Willowood Lactofen 2EC

Section 1. Identification

GHS product identifier : Willowood Lactofen 2EC
Chemical name : Lactofen
Product code : Not available.
Other means of identification : Not available.
EPA Registration Number : 87290-72
EPA Signal Word : DANGER
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Herbicide.

Supplier's details : Willowood, LLC
385 Interlocken Cresent Suite 240,
Broomfield, CO 80021
Tel: 877-679-9963
Operations@WillowoodUSA.com

Emergency telephone number (with hours of operation) : CHEMTREC, U.S.: 1-800-424-9300
International: +1-703-527-3887
24/7 Health Emergencies: Call 800-858-7378 (National Pesticide Information Center)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 4
CARCINOGENICITY - Category 2
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements
Hazard pictograms :

Signal word : Warning
Hazard statements : H227 - Combustible liquid.
H351 - Suspected of causing cancer.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements
Prevention : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from flames and hot surfaces. - No smoking.
P273 - Avoid release to the environment.
Section 2. Hazards identification

Response
- P391 - Collect spillage.
- P308 + P313 - IF exposed or concerned: Get medical attention.

Storage
- P405 - Store locked up.
- P403 - Store in a well-ventilated place.
- P235 - Keep cool.

Disposal
- P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified
- None known.

Section 3. Composition/information on ingredients

Substance/mixture
- Mixture

Chemical name
- Lactofen

Other means of identification
- Not available.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Naphtha (Petroleum), Heavy Arom.</td>
<td>≥25 - ≤50</td>
<td>64742-94-5</td>
</tr>
<tr>
<td>Benzoic acid, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitro-, 2-ethoxy-1-methyl-2-oxoethyl ester</td>
<td>≥10 - ≤25</td>
<td>77501-63-4</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>≥5 - ≤10</td>
<td>91-20-3</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>≥1 - ≤3</td>
<td>95-63-6</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact
- Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.

Inhalation
- Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact
- Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion
- Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Section 4. First aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Notes to physician

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments

No specific treatment.

Protection of first-aiders

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media

Do not use water jet or water-based fire extinguishers.

Specific hazards arising from the chemical

Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products

Decomposition products may include the following materials:

- carbon dioxide
- carbon monoxide
- nitrogen oxides
- halogenated compounds

Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.
Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities**
Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

**Ingredient name**

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Naphtha (Petroleum), Heavy Arom.</td>
<td>None.</td>
</tr>
<tr>
<td>Benzoic acid, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitro-, 2-ethoxy-1-methyl-2-oxoethyl ester</td>
<td>None.</td>
</tr>
</tbody>
</table>
  TWA: 10 ppm 8 hours.  
  TWA: 52 mg/m³ 8 hours.  
  NIOSH REL (United States, 10/2016).  
  TWA: 10 ppm 10 hours.  
  TWA: 50 mg/m³ 10 hours.  
  STEL: 15 ppm 15 minutes.  
  STEL: 75 mg/m³ 15 minutes.  
  OSHA PEL (United States, 6/2016).  
  TWA: 10 ppm 8 hours.  
  TWA: 50 mg/m³ 8 hours. |
| 1,2,4-Trimethylbenzene | ACGIH TLV (United States, 3/2017).  
  TWA: 25 ppm 8 hours.  
  TWA: 123 mg/m³ 8 hours.  
  NIOSH REL (United States, 10/2016).  
  TWA: 25 ppm 10 hours.  
  TWA: 125 mg/m³ 10 hours. |

**Appropriate engineering controls**
Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls**
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

**Individual protection measures**

**Hygiene measures**
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**
Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Section 8. Exposure controls/personal protection

**Hand protection**: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection**: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

**Appearance**

**Physical state**: Liquid. [Viscous.]

**Color**: Pale yellow.

**Odor**: Pungent.

**Odor threshold**: Not available.

**pH**: 5.77 (corrected to 25°C)

**Melting point**: Not available.

**Boiling point**: Not available.

**Flash point**: Open cup: 61.111°C (142°F)

**Evaporation rate**: Not available.

**Flammability (solid, gas)**: Not available.

**Lower and upper explosive (flammable) limits**: Not available.

**Vapor pressure**: Not available.

**Vapor density**: Not available.

**Relative density**: 1.004 g/ml @ 20°C (68°F)

**Solubility**: Not available.

**Partition coefficient: n-octanol/water**: Not available.

**Auto-ignition temperature**: Not available.

**Decomposition temperature**: Not available.

**Viscosity**: Not available.

**Flow time (ISO 2431)**: Not available.
Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials: None known.

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoic acid, 5-[2-chloro-4-((trifluoromethyl)phenoxy)-2-nitro-, 2-ethoxy-1-methyl-2-oxoethyl ester]</td>
<td>LD50 Dermal</td>
<td>Rat</td>
<td>2 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;5 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>LD50 Oral</td>
<td>Rabbit</td>
<td>&gt;20 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>490 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>18000 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5 g/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Naphtha (Petroleum), Heavy Arom. Naphthalene</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 µl</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>495 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>-</td>
<td>2B</td>
<td>Reasonably anticipated to be a human carcinogen.</td>
</tr>
</tbody>
</table>

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>Category 3</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>
Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)
There is no data available.

Aspiration hazard

<table>
<thead>
<tr>
<th>Name</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Naphtha (Petroleum), Heavy Arom.</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
</tbody>
</table>

Information on the likely routes of exposure

Potential acute health effects

- **Eye contact**: No known significant effects or critical hazards.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- **Eye contact**: No known significant effects or critical hazards.
- **Inhalation**: No known significant effects or critical hazards.
- **Skin contact**: No known significant effects or critical hazards.
- **Ingestion**: No known significant effects or critical hazards.

Potential chronic health effects

- **General**: No known significant effects or critical hazards.
- **Carcinogenicity**: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- **Mutagenicity**: No known significant effects or critical hazards.
- **Teratogenicity**: No known significant effects or critical hazards.
- **Developmental effects**: No known significant effects or critical hazards.
- **Fertility effects**: No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- **Potential immediate effects**: No known significant effects or critical hazards.
- **Potential delayed effects**: No known significant effects or critical hazards.

Long term exposure

- **Potential immediate effects**: No known significant effects or critical hazards.
- **Potential delayed effects**: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>6194.2 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>8333.3 mg/kg</td>
</tr>
<tr>
<td>Inhalation (vapors)</td>
<td>1058.8 mg/L</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoic acid, 5-[2-chloro-4-( trifluoromethyl)phenoxy]-2-nitro-2-ethoxy-1-methyl-2-oxoethyl ester</td>
<td>Acute EC50 2 ppm Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>Acute LC50 2.1 ppm Fresh water</td>
<td>Fish - Lepomis macrochirus</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 1600 µg/L Fresh water</td>
<td>Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 2350 µg/L Marine water</td>
<td>Crustaceans - Palaemonetes pugio</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 213 µg/L Fresh water</td>
<td>Fish - Melanotaenia fluviatilis - Larvae</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.5 mg/L Marine water</td>
<td>Crustaceans - Uca pugnax - Adult</td>
<td>3 weeks</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 1.5 mg/L Fresh water</td>
<td>Fish - Oreochromis mossambicus</td>
<td>60 days</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>Acute LC50 4910 µg/L Marine water</td>
<td>Crustaceans - Elasmopus pectenricus - Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 7720 µg/L Fresh water</td>
<td>Fish - Pimephales promelas</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability

There is no data available.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP\textsubscript{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Naphtha (Petroleum), Heavy Arom.</td>
<td>2.8 to 6.5</td>
<td>99 to 5780</td>
<td>high</td>
</tr>
<tr>
<td>Benzoic acid, 5-[2-chloro-4-( trifluoromethyl)phenoxy]-2-nitro-2-ethoxy-1-methyl-2-oxoethyl ester</td>
<td>4.81</td>
<td>3.7 to 7.3</td>
<td>low</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>3.4</td>
<td>36.5 to 168</td>
<td>low</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>3.63</td>
<td>243</td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K\textsubscript{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Status</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>Listed</td>
<td>U165</td>
</tr>
</tbody>
</table>

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>NA1993</td>
<td>UN3077</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>COMBUSTIBLE LIQUID, N.O.S. (Solvent Naphtha (Petroleum), Heavy Arom.)</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Benzoic acid, 5-[2-chloro-4-(trifluoromethyl) phenoxy]-2-nitro-2-ethoxy-1-methyl-2-oxoethyl ester, Naphthalene). Marine pollutant (Benzoic acid, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitro-2-ethoxy-1-methyl-2-oxoethyl ester, Naphthalene)</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>Combustible liquid.</td>
<td>9</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

Reportable quantity: 1291.3 lbs / 586.26 kg [154.26 gal / 583.92 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

AERG: 128, 171

DOT-RQ Details: Naphthalene 100 lbs / 45.4 kg

DOT Classification: Non-bulk packages (less than or equal to 119 gal) of combustible liquids, that are marine pollutants, are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by vessel. This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.

IMDG: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Special precautions for user: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Section 15. Regulatory information

U.S. Federal regulations

Clean Water Act (CWA) 307: Naphthalene
Clean Water Act (CWA) 311: Naphthalene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)
- Listed

Clean Air Act Section 602 Class I Substances: Not listed
Clean Air Act Section 602 Class II Substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed
DEA List II Chemicals (Essential Chemicals): Not listed

SARA 302/304

Composition/information on ingredients
No products were found.

SARA 304 RQ: Not applicable.

SARA 311/312
Classification
- FLAMMABLE LIQUIDS - Category 4
- CARCINOGENICITY - Category 2

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Naphtha (Petroleum), Heavy Arom.</td>
<td>ASPIRATION HAZARD - Category 1</td>
</tr>
<tr>
<td>Benzoic acid, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitro-,</td>
<td>ACUTE TOXICITY (dermal) - Category 4</td>
</tr>
<tr>
<td>2-ethoxy-1-methyl-2-oxoethyl ester Naphthalene</td>
<td>FLAMMABLE SOLIDS - Category 2</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>ACUTE TOXICITY (oral) - Category 4</td>
</tr>
<tr>
<td></td>
<td>CARCINOGENICITY - Category 2</td>
</tr>
<tr>
<td></td>
<td>ACUTE TOXICITY (inhalation) - Category 4</td>
</tr>
<tr>
<td></td>
<td>SKIN CORROSION/IRRITATION - Category 2</td>
</tr>
<tr>
<td></td>
<td>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A</td>
</tr>
<tr>
<td></td>
<td>SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3</td>
</tr>
</tbody>
</table>

SARA 313

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form R - Reporting requirements</td>
<td></td>
</tr>
<tr>
<td>Benzoic acid, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitro-, 2-ethoxy-1-methyl-2-oxoethyl ester Naphthalene 1,2,4-Trimethylbenzene</td>
<td>77501-63-4</td>
</tr>
<tr>
<td>91-20-3 95-63-6</td>
<td></td>
</tr>
<tr>
<td>Supplier notification</td>
<td></td>
</tr>
<tr>
<td>Benzoic acid, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitro-, 2-ethoxy-1-methyl-2-oxoethyl ester Naphthalene 1,2,4-Trimethylbenzene</td>
<td>77501-63-4</td>
</tr>
<tr>
<td>91-20-3 95-63-6</td>
<td></td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.
Section 15. Regulatory information

State regulations

Massachusetts: The following components are listed: Naphthalene; 1,2,4-Trimethylbenzene
New York: The following components are listed: Naphthalene
New Jersey: The following components are listed: Naphthalene; 1,2,4-Trimethylbenzene; Benzoic acid, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitro-, 2-ethoxy-1-methyl-2-oxoethyl ester
Pennsylvania: The following components are listed: Naphthalene; 1,2,4-Trimethylbenzene

California Prop. 65

WARNING: This product can expose you to chemicals including Benzoic acid, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitro-, 2-ethoxy-1-methyl-2-oxoethyl ester, Naphthalene, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzoic acid, 5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitro-, 2-ethoxy-1-methyl-2-oxoethyl ester</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>Yes.</td>
<td>-</td>
</tr>
</tbody>
</table>

Section 16. Other information

Procedure used to derive the classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABLE LIQUIDS - Category 4</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>CARCINOGENICITY - Category 2</td>
<td>Calculation method</td>
</tr>
<tr>
<td>AQUATIC HAZARD (ACUTE) - Category 2</td>
<td>Calculation method</td>
</tr>
<tr>
<td>AQUATIC HAZARD (LONG-TERM) - Category 2</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

History

Date of issue mm/dd/yyyy: 01/30/2018
Date of previous issue: Not applicable.
Version: 1
Prepared by: KMK Regulatory Services Inc.

Notice to reader

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