DOW AGROSCIENCES LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: SURMOUNT™ Herbicide

Recommended use of the chemical and restrictions on use
Identified uses: End use herbicide product

COMPANY IDENTIFICATION
DOW AGROSCIENCES LLC
9330 ZIONSVILLE RD
INDIANAPOLIS IN 46268-1053
UNITED STATES

Customer Information Number: 800-992-5994
info@dow.com

EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact: 800-992-5994
Local Emergency Contact: 352-323-3500

2. HAZARDS IDENTIFICATION

Hazard classification
This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.
Serious eye damage - Category 1
Carcinogenicity - Category 2

Label elements
Hazard pictograms

Signal word: DANGER!
Hazards
Causes serious eye damage.
Suspected of causing cancer.

Precautionary statements
Prevention
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear eye protection/ face protection.
Use personal protective equipment as required.

Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
IF exposed or concerned: Get medical advice/ attention.

Storage
Store locked up.

Disposal
Dispose of contents/ container to an approved waste disposal plant.

Other hazards
no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

<table>
<thead>
<tr>
<th>Component</th>
<th>CASRN</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picloram triisopropanolamine salt</td>
<td>6753-47-5</td>
<td>13.2%</td>
</tr>
<tr>
<td>Fluroxypyr 1-methylheptyl ester</td>
<td>81406-37-3</td>
<td>10.6%</td>
</tr>
<tr>
<td>Heavy aromatic naphtha</td>
<td>64742-94-5</td>
<td>15.0%</td>
</tr>
<tr>
<td>Dipropylene glycol monomethyl ether</td>
<td>34590-94-8</td>
<td>14.9%</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
<td>2.1%</td>
</tr>
<tr>
<td>Triisopropanolamine</td>
<td>122-20-3</td>
<td>1.9%</td>
</tr>
<tr>
<td>Balance</td>
<td>Not available</td>
<td>42.3%</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact: Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Ingestion: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. Bronchodilators, expectorants, antitussives and corticosteroids may be of help. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If hemolysis is suspected, monitor hemoglobin, hematocrit, plasma free hemoglobin, and urinalysis. Whole blood or packed RBC transfusion may be required in severe cases. Alkalization of urine with bicarbonate may prevent renal damage. Administer 100% oxygen to relieve headache and a general sense of weakness. Determine methemoglobin concentration of blood every 3 to 6 hours for first 24 hours. It should return to normal within 24 hours. The treatment of toxic methemoglobinemia may include the intravenous administration of methylene blue. If methemoglobin >10-20% consider methylene blue 1-2 mg/kg body weight as 1% solution intravenously over 5 minutes followed by 15-30 cc flush (Price D, Methemoglobinemia, Goldfrank Toxicologic Emergencies, 5th ed., 1994). Also provide 100% oxygen. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment. Skin contact may aggravate preexisting dermatitis. Excessive exposure may aggravate preexisting liver and kidney disease. Repeated excessive exposure may aggravate preexisting lung disease.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.
Unsuitable extinguishing media: no data available

Special hazards arising from the substance or mixture
Hazardous combustion products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn. If exposed to fire from another source and water is evaporated, exposure to high temperatures may cause toxic fumes.

Advice for firefighters
Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the “Accidental Release Measures” and the “Ecological Information” sections of this (M)SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Evacuate area. Refer to section 7, Handling, for additional precautionary measures. Only trained and properly protected personnel must be involved in clean-up operations. Keep upwind of spill. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep out of reach of children. Do not get in eyes. Do not swallow. Avoid contact with skin and clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.
Conditions for safe storage: Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Exposure limits are listed below, if they exist.

<table>
<thead>
<tr>
<th>Component</th>
<th>Regulation</th>
<th>Type of listing</th>
<th>Value/Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluroxypyr 1-methylheptyl ester</td>
<td>Dow IHG</td>
<td>TWA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Dipropylene glycol monomethyl ether</td>
<td>ACGIH</td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>Dow IHG</td>
<td>TWA</td>
<td>10 ppm</td>
</tr>
<tr>
<td></td>
<td>Dow IHG</td>
<td>STEL</td>
<td>15 ppm</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>TWA</td>
<td>Absorbed via skin</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>STEL</td>
<td>Absorbed via skin</td>
</tr>
<tr>
<td></td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>600 mg/m³</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>TWA</td>
<td>Absorbed via skin</td>
</tr>
<tr>
<td></td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>Absorbed via skin</td>
</tr>
<tr>
<td>Triisopropanolamine</td>
<td>Dow IHG</td>
<td>TWA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td></td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>50 mg/m³</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERICAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Exposure controls
Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures
Eye/face protection: Use chemical goggles.

Skin protection
Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate (“EVAL”). Examples of acceptable glove barrier materials include: Natural rubber (“latex”). Neoprene. Nitrile/butadiene rubber (“nitrile” or “NBR”). Polyvinyl chloride (“PVC” or “vinyl”). Viton. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.
Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Tan to brown</td>
</tr>
<tr>
<td>Odor</td>
<td>Amine.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No test data available</td>
</tr>
<tr>
<td>pH</td>
<td>7.4 pH Electrode</td>
</tr>
<tr>
<td>Melting point/range</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No test data available</td>
</tr>
<tr>
<td>Boiling point (760 mmHg)</td>
<td>No test data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>closed cup &gt; 100 °C ( &gt; 212 °F) Closed Cup</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>No test data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>no data available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No test data available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No test data available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No test data available</td>
</tr>
<tr>
<td>Relative Vapor Density (air = 1)</td>
<td>No test data available</td>
</tr>
<tr>
<td>Relative Density (water = 1)</td>
<td>1.083 at 20 °C (68 °F)</td>
</tr>
<tr>
<td>Water solubility</td>
<td>emulsifiable</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>no data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No test data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No test data available</td>
</tr>
<tr>
<td>Dynamic Viscosity</td>
<td>77.2 mPa.s at 20 °C (68 °F)</td>
</tr>
<tr>
<td>Kinematic Viscosity</td>
<td>No test data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No test data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No test data available</td>
</tr>
<tr>
<td>Liquid Density</td>
<td>1.083 g/cm3 at 20 °C (68 °F) Pyknometer</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>no data available</td>
</tr>
</tbody>
</table>

NOTE: The physical data presented above are typical values and should not be construed as a specification.
10. STABILITY AND REACTIVITY

Reactivity: no data available

Chemical stability: Stable under recommended storage conditions. See Storage, Section 7.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Can coagulate if frozen. Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials: Avoid contact with: Oxidizers. Addition of chemicals may cause phase separation.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Hydrogen chloride. Nitrogen oxides. Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

Acute toxicity

Acute oral toxicity
Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product:
LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity
Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product:
LD50, Rat, > 5,000 mg/kg

Acute inhalation toxicity
Prolonged exposure is not expected to cause adverse effects. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs.

As product:
LC50, Rat, 4 Hour, dust/mist, > 5.56 mg/l

Skin corrosion/irritation
Brief contact may cause slight skin irritation with local redness. May cause drying and flaking of the skin.

Serious eye damage/eye irritation
May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

**Sensitization**
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant information found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**
For the active ingredient(s):
In animals, effects have been reported on the following organs:
Liver.

Based on information for component(s):
Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed.
Cataracts and other eye effects have been reported in humans repeatedly exposed to naphthalene vapor or dust.
Excessive exposure may cause hemolysis, thereby impairing the blood’s ability to transport oxygen.
Ingestion of naphthalene by humans has caused hemolytic anemia.
In animals, effects have been reported on the following organs:
Lung.
Gastrointestinal tract.
Thyroid.
Urinary tract.
Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

**Carcinogenicity**
Contains naphthalene which has caused cancer in some laboratory animals. In humans, there is limited evidence of cancer in workers involved in naphthalene production. Limited oral studies in rats were negative. For similar active ingredient(s). Picloram. Fluroxypyr-meptyl. Did not cause cancer in laboratory animals.

**Teratogenicity**
For the active ingredient(s): Fluroxypyr 1-methylheptyl ester. Has been toxic to the fetus in laboratory animals at doses toxic to the mother. For the component(s) tested: Did not cause birth defects in laboratory animals.

**Reproductive toxicity**
For similar active ingredient(s). Picloram. For the active ingredient(s): Fluroxypyr 1-methylheptyl ester. In animal studies, did not interfere with reproduction. For the minor component(s): In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

**Mutagenicity**
In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

**Aspiration Hazard**
No aspiration toxicity classification
Carcinogenicity
Component  List                  Classification
Naphthalene  IARC                  Group 2B: Possibly carcinogenic to humans
                              US NTP                  Reasonably anticipated to be a human carcinogen
                              ACGIH                  A3: Confirmed animal carcinogen with unknown relevance to humans.

12. ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

Toxicity

Acute toxicity to fish
As product:
For the active ingredient(s):
Fluroxypyr 1-methylheptyl ester.
Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).

For the active ingredient(s):
Fluroxypyr 1-methylheptyl ester.
LC50, Cyprinodon variegatus (sheepshead minnow), 96 Hour, > 0.0866 mg/l, OECD Test Guideline 203 or Equivalent

Toxicity to aquatic species occurs at concentrations above material's water solubility.

Acute toxicity to aquatic invertebrates
For the active ingredient(s):
Fluroxypyr 1-methylheptyl ester.
EC50, Daphnia magna (Water flea), semi-static test, 48 Hour, > 0.183 mg/l, OECD Test Guideline 202 or Equivalent

Toxicity to aquatic species occurs at concentrations above material's water solubility.

Acute toxicity to algae/aquatic plants
For the active ingredient(s):
Fluroxypyr 1-methylheptyl ester.
ErC50, diatom Navicula sp., 72 Hour, Biomass, 0.24 mg/l

Toxicity to Above Ground Organisms
Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

oral LD50, Apis mellifera (bees), 48 Hour, > 200 micrograms/bee
oral LD50, Coturnix japonica (Japanese quail), > 2,250 mg/kg

Persistence and degradability
Picloram triisopropanolamine salt
Biodegradability: For similar active ingredient(s). Picloram. Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions. Biodegradation may occur under aerobic conditions (in the presence of oxygen). Surface photodegradation is expected with exposure to sunlight.

Fluroxypyr 1-methylheptyl ester
Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines. 10-day Window: Fail
Biodegradation: 32 %
Exposure time: 28 d
Method: OECD Test Guideline 301D or Equivalent

Theoretical Oxygen Demand: 2.2 mg/mg

Stability in Water (1/2-life)
, half-life, 454 d

Heavy aromatic naphtha
Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines.

Dipropylene glycol monomethyl ether
Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability). 10-day Window: Pass
Biodegradation: 75 %
Exposure time: 28 d
Method: OECD Test Guideline 301F or Equivalent

Theoretical Oxygen Demand: 2.06 mg/mg

Chemical Oxygen Demand: 2.02 mg/mg Dichromate

Biological oxygen demand (BOD)

<table>
<thead>
<tr>
<th>Incubation Time</th>
<th>BOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 d</td>
<td>0 %</td>
</tr>
<tr>
<td>10 d</td>
<td>0 %</td>
</tr>
<tr>
<td>20 d</td>
<td>31.6 %</td>
</tr>
</tbody>
</table>

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitizer: OH radicals
Atmospheric half-life: 3.4 - 10.4 Hour
Method: Estimated.

Naphthalene
Biodegradability: Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%).
**Theoretical Oxygen Demand**: 3.00 mg/mg

**Biological oxygen demand (BOD)**

<table>
<thead>
<tr>
<th>Incubation Time</th>
<th>BOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 d</td>
<td>57.000 %</td>
</tr>
<tr>
<td>10 d</td>
<td>71.000 %</td>
</tr>
<tr>
<td>20 d</td>
<td>71.000 %</td>
</tr>
</tbody>
</table>

**Photodegradation**  
**Test Type**: Half-life (indirect photolysis)  
**Sensitizer**: OH radicals  
**Atmospheric half-life**: 5.9 Hour  
**Method**: Estimated.

**Triisopropanolamine**  
**Biodegradability**: Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%). Biodegradation rate may increase in soil and/or water with acclimation. Material is not readily biodegradable according to OECD/EEC guidelines.  
**10-day Window**: Fail  
**Biodegradation**: 0 %  
**Exposure time**: 28 d  
**Method**: OECD Test Guideline 301F or Equivalent

**Theoretical Oxygen Demand**: 2.35 mg/mg

**Photodegradation**  
**Test Type**: Half-life (indirect photolysis)  
**Sensitizer**: OH radicals  
**Atmospheric half-life**: 3 Hour  
**Method**: Estimated.

**Balance**  
**Biodegradability**: No relevant data found.

**Bioaccumulative potential**

**Picloram triisopropanolamine salt**  
**Bioaccumulation**: No data available for this product. For similar active ingredient(s). Picloram. Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

**Fluroxypyr 1-methylheptyl ester**  
**Bioaccumulation**: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).  
**Partition coefficient**: n-octanol/water (log Pow): 5.04 Measured

**Heavy aromatic naphtha**  
**Bioaccumulation**: For similar material(s): Bioconcentration potential is high (BCF > 3000 or Log Pow between 5 and 7).

**Dipropylene glycol monomethyl ether**
Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water (log Pow): 1.01 Measured

**Naphthalene**

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient: n-octanol/water (log Pow): 3.3 Measured

Bioconcentration factor (BCF): 40 - 300 Fish. 28 d Measured

**Triisopropanolamine**

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water (log Pow): -0.015 at 23 °C Measured

Bioconcentration factor (BCF): < 0.57 Fish. 42 d Measured

**Balance**

Bioaccumulation: No relevant data found.

Mobility in soil

**Picloram triisopropanolamine salt**

For similar active ingredient(s).

Picloram.

Potential for mobility in soil is very high (Koc between 0 and 50).

**Fluroxypyr 1-methylheptyl ester**

Expected to be relatively immobile in soil (Koc > 5000).

Partition coefficient (Koc): 6200 - 43000

**Heavy aromatic naphtha**

No relevant data found.

**Dipropylene glycol monomethyl ether**

Given its very low Henry’s constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 0.28 Estimated.

**Naphthalene**

Potential for mobility in soil is medium (Koc between 150 and 500).

Partition coefficient (Koc): 240 - 1300 Measured

**Triisopropanolamine**

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 10 Estimated.

**Balance**

No relevant data found.

---

**13. DISPOSAL CONSIDERATIONS**

Disposal methods: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory...
authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

14. TRANSPORT INFORMATION

DOT

<table>
<thead>
<tr>
<th>Proper shipping name</th>
<th>Environmentally hazardous substance, liquid, n.o.s.(Fluroxypyr, Naphthalene)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN 3082</td>
</tr>
<tr>
<td>Class</td>
<td>9</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>Reportable Quantity</td>
<td>Naphthalene</td>
</tr>
</tbody>
</table>

Classification for SEA transport (IMO-IMDG):

<table>
<thead>
<tr>
<th>Proper shipping name</th>
<th>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Fluroxypyr, Naphthalene)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN 3082</td>
</tr>
<tr>
<td>Class</td>
<td>9</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>Fluroxypyr, Naphthalene</td>
</tr>
<tr>
<td>Transport in bulk</td>
<td>Consult IMO regulations before transporting ocean bulk</td>
</tr>
<tr>
<td>according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code</td>
<td></td>
</tr>
</tbody>
</table>

Classification for AIR transport (IATA/ICAO):

<table>
<thead>
<tr>
<th>Proper shipping name</th>
<th>Environmentally hazardous substance, liquid, n.o.s.(Fluroxypyr, Naphthalene)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN 3082</td>
</tr>
<tr>
<td>Class</td>
<td>9</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
</tbody>
</table>

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.
15. REGULATORY INFORMATION

OSHA Hazard Communication Standard
This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312
Acute Health Hazard
Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

<table>
<thead>
<tr>
<th>Components</th>
<th>CASRN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
</tr>
</tbody>
</table>

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)
WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

Pennsylvania (Worker and Community Right-To-KnowAct): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:
The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

<table>
<thead>
<tr>
<th>Components</th>
<th>CASRN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy aromatic naphtha</td>
<td>64742-94-5</td>
</tr>
<tr>
<td>Dipropylene glycol monomethyl ether</td>
<td>34590-94-8</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
</tr>
<tr>
<td>Triisopropanolamine</td>
<td>122-20-3</td>
</tr>
</tbody>
</table>

Pennsylvania (Worker and Community Right-To-KnowAct): Pennsylvania Special Hazardous Substances List:
To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

United States TSCA Inventory (TSCA)
This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

Federal Insecticide, Fungicide and Rodenticide Act
EPA Registration Number: 62719-480
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER
Corrosive
Causes irreversible eye damage
16. OTHER INFORMATION

Hazard Rating System

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Revision
Identification Number: 101190255 / A211 / Issue Date: 05/04/2015 / Version: 7.0
DAS Code: LAF-4
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

<table>
<thead>
<tr>
<th>Absorbed via skin</th>
<th>Absorbed via skin</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td>Dow IHG</td>
<td>Dow Industrial Hygiene Guideline</td>
</tr>
<tr>
<td>OSHA Z-1</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
</tr>
<tr>
<td>STEL</td>
<td>Short term exposure limit</td>
</tr>
<tr>
<td>TWA</td>
<td>Time weighted average</td>
</tr>
</tbody>
</table>

Information Source and References
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW AGROSCIENCES LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer’s/user’s responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer’s/user’s duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.