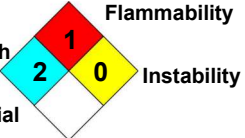





# Material Safety Data Sheet

| NFPA  | HMIS   | WHMIS  | TDG | DOT          |   |                  |   |               |   |   |  |   |
|---|--|--------|-----|--------------|---|------------------|---|---------------|---|---|--|---|
|  | <table border="1"> <tr><td>Health</td><td>2</td></tr> <tr><td>Flammability</td><td>1</td></tr> <tr><td>Physical hazards</td><td>0</td></tr> <tr><td>Suggested PPE</td><td>E</td></tr> </table> | Health | 2   | Flammability | 1 | Physical hazards | 0 | Suggested PPE | E |  |  |  |
| Health  | 2  |        |     |              |   |                  |   |               |   |   |  |   |
| Flammability  | 1  |        |     |              |   |                  |   |               |   |   |  |   |
| Physical hazards  | 0  |        |     |              |   |                  |   |               |   |   |  |   |
| Suggested PPE   | E  |        |     |              |   |                  |   |               |   |   |  |   |

## 1 . Product and Company Identification

|  |  |
|--|--|
| <b>Product name</b> 5180680 3610 ULV Insecticide 4-4L  |  |
| <b>Synonym</b> Pyrethrin   | <b>MSDS prepared by the Environment, Health &amp; Safety Department on:</b> 9/17/2013.   |
| <b>Material uses</b> Insecticide   | <b>Version</b> 3.07  |
| <b>MSDS Number</b> 5180680 (PCP # 11540)   | <b><u>In Case of Emergency</u></b><br><b>Transportation: 1-800-792-8311</b><br><b>Medical: 1-877-615-0015</b>  |
| <b>Manufacturer</b> Agrium Advanced Technologies, Inc.<br>2915 Rocky Mountain Avenue, Suite 400<br>Loveland, CO. 80538 | For more information on Agrium AT or our products, please go to:<br><a href="http://www.agriumat.com">http://www.agriumat.com</a><br>or contact us at Toll-Free:800-461-6471 |

## 2 . Hazards Identification

|  |  |
|--|--|
| <b>Physical state</b>                          | Liquid.  |
| <b>OSHA/HCS status</b>                         | This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  |
| <b>Emergency overview</b>                      | <p>Warning</p> <p>COMBUSTIBLE LIQUID AND VAPOR. MAY BE FATAL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.</p> <p>Harmful in contact with skin. Harmful if swallowed. Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Contains material that may cause target organ damage, based on animal data. Wash thoroughly after handling.</p> |
| <b><u>Potential acute health effects</u></b>   |  |
| <b>Inhalation</b>                              | Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.   |
| <b>Ingestion</b>                               | May be harmful if swallowed.   |
| <b>Skin</b>                                    | Harmful in contact with skin.  |
| <b>Eyes</b>                                    | May irritate the eyes upon contact.  |
| <b><u>Potential chronic health effects</u></b> |  |
| <b>Chronic effects</b>                         | Contains material that may cause target organ damage, based on animal data.  |
| <b>Carcinogenicity</b>                         | No known significant effects or critical hazards.  |
| <b>Mutagenicity</b>                            | No known significant effects or critical hazards.  |

## 2. Hazards Identification

|                              |  |
|------------------------------|--|
| <b>Teratogenicity</b>        | No known significant effects or critical hazards.  |
| <b>Developmental effects</b> | No known significant effects or critical hazards.  |
| <b>Fertility effects</b>     | No known significant effects or critical hazards.  |
| <b>Target organs</b>         | Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, liver, upper respiratory tract, skin, central nervous system (CNS), testes. |

### Over-exposure signs/symptoms

|   |  |
|---|--|
| <b>Inhalation</b>                                     | No specific data.  |
| <b>Ingestion</b>                                      | No specific data.  |
| <b>Skin</b>   | No specific data.  |
| <b>Eyes</b>   | Adverse symptoms may include the following:<br>irritation<br>watering<br>redness   |
| <b>Medical conditions aggravated by over-exposure</b> | Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product. |

See toxicological information (Section 11)

## 3. Composition / Information on Ingredients

### United States

| <u>Name</u>  | <u>CAS number</u> | <u>%</u> |
|--|-------------------|----------|
| N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide | 113-48-4          | 5        |
| 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether            | 51-03-6           | 4.8      |
| Pyrethrins and Pyrethroids                                 | 8003-34-7         | 2.49     |
| Solvent naphtha (petroleum), light arom.                   | 64742-95-6        | 50 - 80  |

### Canada

| <u>Name</u>  | <u>CAS number</u> | <u>%</u> |
|--|-------------------|----------|
| solvent naphtha (petroleum), light arom.                   | 64742-95-6        | 50 - 80  |
| N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide | 113-48-4          | 5        |
| 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether            | 51-03-6           | 4.8      |
| Pyrethrins and Pyrethroids                                 | 8003-34-7         | 2.49     |

### Mexico

| <u>Name</u>  | <u>CAS number</u> | <u>UN number</u> | <u>%</u> | <u>IDLH</u>            | <u>Classification</u> |          |          |                |
|--|-------------------|------------------|----------|------------------------|-----------------------|----------|----------|----------------|
|  |                   |                  |          |                        | <u>H</u>              | <u>F</u> | <u>R</u> | <u>Special</u> |
| N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide | 113-48-4          | UN2810           | 5        | -                      | 2                     | 0        | 0        |                |
| 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether            | 51-03-6           | UN2810           | 4.8      | -                      | 3                     | 1        | 0        |                |
| Pyrethrins and Pyrethroids                                 | 8003-34-7         | UN2811           | 2.49     | 5000 mg/m <sup>3</sup> | 2                     | 2        | 0        |                |
| Solvent naphtha (petroleum), light arom.                   | 64742-95-6        | Not available.   | 50 - 80  | -                      | 1                     | 0        | 0        |                |

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.

## 4 . First Aid Measures

|                                   |   |
|-----------------------------------|---|
| <b>Eye contact</b>                | Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention if irritation or symptoms occur. Seek additional medical advice if symptoms or conditions persist.   |
| <b>Skin contact</b>               | In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Seek medical advice if irritation or symptoms persist.   |
| <b>Inhalation</b>                 | If inhalation occurs, remove individual(s) to fresh air. Loosen restrictive clothing items if necessary. If individual has irregular or difficulty breathing or is under respiratory arrest seek medical attention immediately. If other conditions or symptoms develop contact a physician.  |
| <b>Ingestion</b>                  | If ingestion occurs, rinse mouth with copious amounts of water. Do Not induce vomiting unless directed to do so by trained medical personnel. Do Not give anything by mouth to unconscious individuals. Seek immediate medical attention.   |
| <b>Protection of first-aiders</b> | No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |
| <b>Notes to physician</b>         | 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.   |

## 5 . Fire-fighting Measures

|   |   |
|---|---|
| <b>Flammability of the product</b>                    | Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. |
| <b><u>Extinguishing media</u></b>                     |   |
| <b>Suitable</b>                                       | Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.  |
| <b>Not suitable</b>                                   | Do not use water jet.   |
| <b>Special exposure hazards</b>                       | 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.                            |
| <b>Hazardous thermal decomposition products</b>       | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides   |
| <b>Special protective equipment for fire-fighters</b> | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.   |

## 6 . Accidental Release Measures

|                                       |  |
|---------------------------------------|--|
| <b>Personal precautions</b>           | 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).  |
| <b>Environmental precautions</b>      | 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).  |
| <b><u>Methods for cleaning up</u></b> |  |
| <b>Small spill</b>                    | Stop leak if without risk. Move containers from spill area. 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.   |
| <b>Large spill</b>                    | Stop leak if without risk. Move containers from spill area. 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). Use spark-proof tools and explosion-proof equipment. 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. |

## 7 . Handling and Storage

|                 |   |
|-----------------|---|
| <b>Handling</b> | Put on appropriate personal protective equipment (see Section 8). 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. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| <b>Storage</b>  | Store in accordance with local regulations. 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. 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. Keep out of reach of children.   |

## 8 . Exposure Controls / Personal Protection

### United States

| Ingredient                 | Exposure limits  |
|----------------------------|--|
| Pyrethrins and Pyrethroids | <b>ACGIH TLV (United States, 2/2010).</b><br>TWA: 5 mg/m <sup>3</sup> 8 hour(s).<br><b>OSHA PEL (United States, 6/2010).</b><br>TWA: 5 mg/m <sup>3</sup> 8 hour(s).<br><b>NIOSH REL (United States, 6/2009).</b><br>TWA: 5 mg/m <sup>3</sup> 10 hour(s). |

### Canada

| Occupational exposure limits |                 | TWA (8 hours) |                   |       | STEL (15 mins) |                   |       | Ceiling |                   |       |           |
|------------------------------|-----------------|---------------|-------------------|-------|----------------|-------------------|-------|---------|-------------------|-------|-----------|
| Ingredient                   | List name       | ppm           | mg/m <sup>3</sup> | Other | ppm            | mg/m <sup>3</sup> | Other | ppm     | mg/m <sup>3</sup> | Other | Notations |
| Pyrethrins and Pyrethroids   | US ACGIH 2/2010 | -             | -                 | 5     | -              | -                 | -     | -       | -                 | -     |           |
|                              | AB 4/2009       | -             | -                 | 5     | -              | -                 | -     | -       | -                 | -     |           |
|                              | BC 9/2010       | -             | -                 | 5     | -              | -                 | -     | -       | -                 | -     | [3]       |
|                              | ON 7/2010       | -             | -                 | 5     | -              | -                 | -     | -       | -                 | -     |           |
|                              | QC 6/2008       | -             | -                 | 5     | -              | -                 | -     | -       | -                 | -     |           |

[3]Skin sensitization

### Mexico

| Ingredient                 | Exposure limits  |
|----------------------------|--|
| Pyrethrins and Pyrethroids | <b>NOM-010-STPS (Mexico, 9/2000).</b><br>LMPE-PPT: 5 mg/m <sup>3</sup> 8 hour(s).<br>LMPE-CT: 10 mg/m <sup>3</sup> 15 minute(s). |

### Consult local authorities for acceptable exposure limits.

#### Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

#### Engineering measures

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.

#### 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.

### Personal protection

#### Respiratory

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

#### Hands

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.

#### Eyes

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 or dusts.

## 8 . Exposure Controls / Personal Protection

**Skin** 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.

**Personal protective equipment (Pictograms)**



**Environmental exposure controls**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9 . Physical and Chemical Properties

|                                  |  |
|----------------------------------|--|
| <b>Physical state</b>            | Liquid.  |
| <b>Flash point</b>               | Closed cup: >61°C (>141.8°F) [T.C.C.]  |
| <b>Auto-ignition temperature</b> | 227°C (440.6°F)  |
| <b>Flammable limits</b>          | Lower: 1.4%<br>Upper: 9.3%   |
| <b>Vapor pressure</b>            | 0.02 kPa (0.147 mm Hg) [20°C]  |
| <b>Vapor density</b>             | 5.4 [Air = 1]  |
| <b>VOC</b>                       | 3.1 % (w/w)  |
| <b>Dispersibility properties</b> | Very slightly dispersible in the following materials: methanol.<br>Not dispersible in the following materials: cold water and hot water. |

## 10 . Stability and Reactivity

|   |  |
|---|--|
| <b>Chemical stability</b>                 | The product is stable.   |
| <b>Possibility of hazardous reactions</b> | Under normal conditions of storage and use, hazardous reactions will not occur.  |
| <b>Hazardous polymerization</b>           | Under normal conditions of storage and use, hazardous polymerization will not occur.   |
| <b>Conditions to avoid</b>                | 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. Do not allow vapor to accumulate in low or confined areas. |
| <b>Materials to avoid</b>                 | Reactive or incompatible with the following materials:<br>oxidizing materials  |
| <b>Hazardous decomposition products</b>   | Under normal conditions of storage and use, hazardous decomposition products should not be produced.   |

## 11. Toxicological Information

### United States

#### Acute toxicity

| Product/ingredient name   | Result                       | Species | Dose       | Exposure |
|---|------------------------------|---------|------------|----------|
| N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide                                  | LD50 Dermal                  | Rat     | 470 mg/kg  | -        |
|   | LD50 Dermal                  | Rabbit  | 470 mg/kg  | -        |
|   | LD50 Oral                    | Rat     | 2800 mg/kg | -        |
| Solvent naphtha (petroleum), light arom.<br>2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether | LD50 Oral                    | Rat     | 8400 mg/kg | -        |
|   | LD50 Dermal                  | Rabbit  | 200 mg/kg  | -        |
| Pyrethrins and Pyrethroids  | LD50 Oral                    | Rat     | 6150 mg/kg | -        |
|   | LD50 Dermal                  | Rat     | 1350 mg/kg | -        |
|   | LD50 Dermal                  | Rabbit  | 300 mg/kg  | -        |
|   | LD50                         | Rat     | 189 mg/kg  | -        |
|   | Intraperitoneal<br>LD50 Oral | Rat     | 200 mg/kg  | -        |

| Product/ingredient name                  | Result               | Species | Score | Exposure | Observation |
|--|----------------------|---------|-------|----------|-------------|
| Solvent naphtha (petroleum), light arom. | Eyes - Mild irritant | Rabbit  | -     | -        | -           |

#### Classification

| Product/ingredient name                         | ACGIH | IARC | EPA | NIOSH | NTP | OSHA |
|---|-------|------|-----|-------|-----|------|
| 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether | -     | 3    | -   | -     | -   | -    |
| Pyrethrins and Pyrethroids                      | A4    | -    | -   | -     | -   | -    |

### Canada

#### Acute toxicity

| Product/ingredient name   | Result                       | Species | Dose       | Exposure |
|---|------------------------------|---------|------------|----------|
| N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide                                  | LD50 Dermal                  | Rat     | 470 mg/kg  | -        |
|   | LD50 Dermal                  | Rabbit  | 470 mg/kg  | -        |
|   | LD50 Oral                    | Rat     | 2800 mg/kg | -        |
| Solvent naphtha (petroleum), light arom.<br>2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether | LD50 Oral                    | Rat     | 8400 mg/kg | -        |
|   | LD50 Dermal                  | Rabbit  | 200 mg/kg  | -        |
| Pyrethrins and Pyrethroids  | LD50 Oral                    | Rat     | 6150 mg/kg | -        |
|   | LD50 Dermal                  | Rat     | 1350 mg/kg | -        |
|   | LD50 Dermal                  | Rabbit  | 300 mg/kg  | -        |
|   | LD50                         | Rat     | 189 mg/kg  | -        |
|   | Intraperitoneal<br>LD50 Oral | Rat     | 200 mg/kg  | -        |

| Product/ingredient name                  | Result               | Species | Score | Exposure | Observation |
|--|----------------------|---------|-------|----------|-------------|
| Solvent naphtha (petroleum), light arom. | Eyes - Mild irritant | Rabbit  | -     | -        | -           |

## 11 . Toxicological Information

### Classification

| Product/ingredient name                         | ACGIH | IARC | EPA | NIOSH | NTP | OSHA |
|---|-------|------|-----|-------|-----|------|
| 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether | -     | 3    | -   | -     | -   | -    |
| Pyrethrins and Pyrethroids                      | A4    | -    | -   | -     | -   | -    |

### Mexico

#### Acute toxicity

| Product/ingredient name                                    | Result                    | Species | Dose       | Exposure |
|--|---------------------------|---------|------------|----------|
| N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide | LD50 Dermal               | Rat     | 470 mg/kg  | -        |
|  | LD50 Dermal               | Rabbit  | 470 mg/kg  | -        |
|  | LD50 Oral                 | Rat     | 2800 mg/kg | -        |
| Solvent naphtha (petroleum), light arom.                   | LD50 Oral                 | Rat     | 8400 mg/kg | -        |
|  | LD50 Dermal               | Rabbit  | 200 mg/kg  | -        |
| Pyrethrins and Pyrethroids                                 | LD50 Oral                 | Rat     | 6150 mg/kg | -        |
|  | LD50 Dermal               | Rat     | 1350 mg/kg | -        |
|  | LD50 Dermal               | Rabbit  | 300 mg/kg  | -        |
|  | LD50                      | Rat     | 189 mg/kg  | -        |
|  | Intraperitoneal LD50 Oral | Rat     | 200 mg/kg  | -        |

| Product/ingredient name                  | Result               | Score  | Score | Exposure | Observation |
|--|----------------------|--------|-------|----------|-------------|
| Solvent naphtha (petroleum), light arom. | Eyes - Mild irritant | Rabbit | -     | -        | -           |

### Classification

| Product/ingredient name                         | ACGIH | IARC | EPA | NIOSH | NTP | OSHA |
|---|-------|------|-----|-------|-----|------|
| 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether | -     | 3    | -   | -     | -   | -    |
| Pyrethrins and Pyrethroids                      | A4    | -    | -   | -     | -   | -    |

## 12 . Ecological Information

**Environmental effects** No known significant effects or critical hazards.

### United States

#### Aquatic ecotoxicity

| Product/ingredient name | Test | Result | Species | Exposure |
|-------------------------|------|--------|---------|----------|
|-------------------------|------|--------|---------|----------|



## 12 . Ecological Information

|  |                                       |  |          |
|--|---------------------------------------|--|----------|
| N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide - | Acute LC50 1.4 to 1.7 ppm Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss                                   | 96 hours |
| 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether -            | Acute EC50 100 ppb Fresh water        | Daphnia - Water flea - Daphnia magna - <24 hours   | 48 hours |
| -  | Acute EC50 0.51 ppm Fresh water       | Daphnia - Water flea - Daphnia magna - <24 hours   | 48 hours |
| -  | Acute LC50 4.2 mg/L Fresh water       | Fish - Bluegill - Lepomis macrochirus - 0.7 g  | 96 hours |
| -  | Acute LC50 3.4 mg/L Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.6 g                           | 96 hours |
| -  | Acute LC50 1.9 mg/L Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 1 g                             | 96 hours |
| -  | Acute LC50 1.8 mg/L Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 1 g                             | 96 hours |
| -  | Acute LC50 1.06 mg/L Fresh water      | Daphnia - Water flea - Daphnia magna - Neonate - <24 hours                                   | 48 hours |
| -  | Acute LC50 4000 ppb Fresh water       | Fish - Bluegill - Lepomis macrochirus  | 96 hours |
| -  | Acute LC50 1860 ppb Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss                                   | 96 hours |
| -  | Acute LC50 13.4 to 18 ppb Fresh water | Fish - Bluegill - Lepomis macrochirus  | 96 hours |
| -  | Acute LC50 8.8 ppb Marine water       | Fish - Sheepshead minnow - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
| -  | Acute LC50 2.4 to 3.2 ppb Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss                                   | 96 hours |
| -  | Acute LC50 3.94                       | Fish -   | 96 hours |

## 12 . Ecological Information

|                            |                                  |   |   |          |
|----------------------------|----------------------------------|---|---|----------|
|                            | ppm Marine water                 | Sheepshead minnow -<br>Cyprinodon variegatus                        |   |          |
| -                          | Acute LC50 2830 ug/L Fresh water | Daphnia - Water flea - Daphnia magna - <=48 hours                   | 48 hours  |          |
| -                          | Acute LC50 1620 ug/L Fresh water | Daphnia - Water flea - Daphnia pulex - <=48 hours                   | 48 hours  |          |
| -                          | Acute LC50 1000 ug/L Fresh water | Crustaceans - Water flea - Ceriodaphnia dubia - <=48 hours          | 48 hours  |          |
| -                          | Acute LC50 650 ug/L Fresh water  | Crustaceans - Water flea - Ceriodaphnia dubia - Neonate             | 48 hours  |          |
| -                          | Acute LC50 330 ug/L Fresh water  | Crustaceans - Water flea - Ceriodaphnia dubia - Neonate - <24 hours | 48 hours  |          |
| Pyrethrins and Pyrethroids | -                                | Acute EC50 265 ppb Fresh water                                      | Daphnia - Water flea - Daphnia magna                        | 48 hours |
|                            | -                                | Acute EC50 42 ppb Fresh water                                       | Crustaceans - Water flea - Simocephalus serrulatus          | 48 hours |
|                            | -                                | Acute EC50 25 ppb Fresh water                                       | Daphnia - Water flea - Daphnia magna                        | 48 hours |
|                            | -                                | Acute EC50 11.6 ppb Fresh water                                     | Daphnia - Water flea - Daphnia magna - <=24 hours           | 48 hours |
|                            | -                                | Acute EC50 6.7 ppb Fresh water                                      | Daphnia - Water flea - Daphnia magna - <=24 hours           | 48 hours |
|                            | -                                | Acute EC50 42 ug/L Fresh water                                      | Crustaceans - Water flea - Simocephalus serrulatus - Larvae | 48 hours |
|                            | -                                | Acute EC50 25 ug/L Fresh water                                      | Daphnia - Water flea - Daphnia pulex - Larvae               | 48 hours |
|                            | -                                | Acute LC50 18.7 ppb Fresh water                                     | Fish - Bluegill - Lepomis macrochirus                       | 96 hours |
|                            | -                                | Acute LC50 16 to 17.7 ppb Marine water                              | Fish - Sheepshead minnow - Cyprinodon variegatus            | 96 hours |
|                            | -                                | Acute LC50 10 ppb Fresh water                                       | Fish - Bluegill - Lepomis                                   | 96 hours |

## 12 . Ecological Information

|   |   |   |          |
|---|---|---|----------|
| - | Acute LC50 5.1<br>ppb Fresh water           | macrochirus<br>Fish - Rainbow<br>trout,donaldson<br>trout -<br>Oncorhynchus<br>mykiss | 96 hours |
| - | Acute LC50 3.8<br>ppb Marine water          | Fish -<br>Sheepshead<br>minnow -<br>Cyprinodon<br>variegatus                          | 96 hours |
| - | Acute LC50 3.4<br>to 4.6 ppb Fresh<br>water | Fish - Bluegill -<br>Lepomis<br>macrochirus   | 96 hours |
| - | Acute LC50 3.2<br>ppb Fresh water           | Fish - Rainbow<br>trout,donaldson<br>trout -<br>Oncorhynchus<br>mykiss                | 96 hours |
| - | Acute LC50 18<br>ug/L Fresh water           | Crustaceans -<br>elc:o3n0:7pt -<br>Gammarus<br>lacustris - 2<br>months                | 48 hours |
| - | Acute LC50 17<br>ug/L Fresh water           | Fish - Northern<br>pike - Esox<br>lucius - 0.8 g                                      | 96 hours |
| - | Acute LC50 14.6<br>ug/L Fresh water         | Fish -<br>Smallmouth bass<br>- Micropterus<br>dolomieu - 0.9 g                        | 96 hours |
| - | Acute LC50 8.96<br>ug/L Fresh water         | Fish - Channel<br>catfish - Ictalurus<br>punctatus - 0.7 g                            | 96 hours |
| - | Acute LC50 4.42<br>ug/L Marine<br>water     | Crustaceans -<br>American lobster<br>- Homarus<br>americanus -<br>Larvae              | 48 hours |
| - | Acute LC50 1.39<br>ug/L Marine<br>water     | Crustaceans -<br>American lobster<br>- Homarus<br>americanus -<br>Larvae              | 48 hours |
| - | Acute LC50 0.73<br>ug/L Marine<br>water     | Crustaceans -<br>American lobster<br>- Homarus<br>americanus -<br>Larvae              | 48 hours |

### Canada

#### Aquatic ecotoxicity

| Product/ingredient name | Test | Result | Species | Exposure |
|-------------------------|------|--------|---------|----------|
|-------------------------|------|--------|---------|----------|

## 12 . Ecological Information

|  |   |                                       |  |          |
|--|---|---------------------------------------|--|----------|
| N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide | - | Acute LC50 1.4 to 1.7 ppm Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss                                   | 96 hours |
| 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether            | - | Acute EC50 100 ppb Fresh water        | Daphnia - Water flea - Daphnia magna - <24 hours   | 48 hours |
|  | - | Acute EC50 0.51 ppm Fresh water       | Daphnia - Water flea - Daphnia magna - <24 hours   | 48 hours |
|  | - | Acute LC50 4.2 mg/L Fresh water       | Fish - Bluegill - Lepomis macrochirus - 0.7 g  | 96 hours |
|  | - | Acute LC50 3.4 mg/L Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.6 g                           | 96 hours |
|  | - | Acute LC50 1.9 mg/L Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 1 g                             | 96 hours |
|  | - | Acute LC50 1.8 mg/L Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 1 g                             | 96 hours |
|  | - | Acute LC50 1.06 mg/L Fresh water      | Daphnia - Water flea - Daphnia magna - Neonate - <24 hours                                   | 48 hours |
|  | - | Acute LC50 4000 ppb Fresh water       | Fish - Bluegill - Lepomis macrochirus  | 96 hours |
|  | - | Acute LC50 1860 ppb Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss                                   | 96 hours |
|  | - | Acute LC50 13.4 to 18 ppb Fresh water | Fish - Bluegill - Lepomis macrochirus  | 96 hours |
|  | - | Acute LC50 8.8 ppb Marine water       | Fish - Sheepshead minnow - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
|  | - | Acute LC50 2.4 to 3.2 ppb Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss                                   | 96 hours |

## 12 . Ecological Information

|                            |   |  |  |          |
|----------------------------|---|--|--|----------|
|                            | - | Acute LC50 3.94 ppm Marine water       | Fish - Sheepshead minnow - <i>Cyprinodon variegatus</i>                    | 96 hours |
|                            | - | Acute LC50 2830 ug/L Fresh water       | Daphnia - Water flea - <i>Daphnia magna</i> - <=48 hours                   | 48 hours |
|                            | - | Acute LC50 1620 ug/L Fresh water       | Daphnia - Water flea - <i>Daphnia pulex</i> - <=48 hours                   | 48 hours |
|                            | - | Acute LC50 1000 ug/L Fresh water       | Crustaceans - Water flea - <i>Ceriodaphnia dubia</i> - <=48 hours          | 48 hours |
|                            | - | Acute LC50 650 ug/L Fresh water        | Crustaceans - Water flea - <i>Ceriodaphnia dubia</i> - Neonate             | 48 hours |
|                            | - | Acute LC50 330 ug/L Fresh water        | Crustaceans - Water flea - <i>Ceriodaphnia dubia</i> - Neonate - <24 hours | 48 hours |
| Pyrethrins and Pyrethroids | - | Acute EC50 265 ppb Fresh water         | Daphnia - Water flea - <i>Daphnia magna</i>                                | 48 hours |
|                            | - | Acute EC50 42 ppb Fresh water          | Crustaceans - Water flea - <i>Simocephalus serrulatus</i>                  | 48 hours |
|                            | - | Acute EC50 25 ppb Fresh water          | Daphnia - Water flea - <i>Daphnia magna</i>                                | 48 hours |
|                            | - | Acute EC50 11.6 ppb Fresh water        | Daphnia - Water flea - <i>Daphnia magna</i> - <=24 hours                   | 48 hours |
|                            | - | Acute EC50 6.7 ppb Fresh water         | Daphnia - Water flea - <i>Daphnia magna</i> - <=24 hours                   | 48 hours |
|                            | - | Acute EC50 42 ug/L Fresh water         | Crustaceans - Water flea - <i>Simocephalus serrulatus</i> - Larvae         | 48 hours |
|                            | - | Acute EC50 25 ug/L Fresh water         | Daphnia - Water flea - <i>Daphnia pulex</i> - Larvae                       | 48 hours |
|                            | - | Acute LC50 18.7 ppb Fresh water        | Fish - Bluegill - <i>Lepomis macrochirus</i>                               | 96 hours |
|                            | - | Acute LC50 16 to 17.7 ppb Marine water | Fish - Sheepshead minnow - <i>Cyprinodon variegatus</i>                    | 96 hours |
|                            | - | Acute LC50 10                          | Fish - Bluegill -  | 96 hours |

## 12 . Ecological Information

|   |                                       |  |          |
|---|---------------------------------------|--|----------|
| - | ppb Fresh water                       | Lepomis macrochirus  |          |
| - | Acute LC50 5.1 ppb Fresh water        | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss   | 96 hours |
| - | Acute LC50 3.8 ppb Marine water       | Fish - Sheepshead minnow - Cyprinodon variegatus             | 96 hours |
| - | Acute LC50 3.4 to 4.6 ppb Fresh water | Fish - Bluegill - Lepomis macrochirus                        | 96 hours |
| - | Acute LC50 3.2 ppb Fresh water        | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss   | 96 hours |
| - | Acute LC50 18 ug/L Fresh water        | Crustaceans - elc:o3n0:7pt - Gammarus lacustris - 2 months   | 48 hours |
| - | Acute LC50 17 ug/L Fresh water        | Fish - Northern pike - Esox lucius - 0.8 g                   | 96 hours |
| - | Acute LC50 14.6 ug/L Fresh water      | Fish - Smallmouth bass - Micropterus dolomieui - 0.9 g       | 96 hours |
| - | Acute LC50 8.96 ug/L Fresh water      | Fish - Channel catfish - Ictalurus punctatus - 0.7 g         | 96 hours |
| - | Acute LC50 4.42 ug/L Marine water     | Crustaceans - American lobster - Homarus americanus - Larvae | 48 hours |
| - | Acute LC50 1.39 ug/L Marine water     | Crustaceans - American lobster - Homarus americanus - Larvae | 48 hours |
| - | Acute LC50 0.73 ug/L Marine water     | Crustaceans - American lobster - Homarus americanus - Larvae | 48 hours |

### Mexico

#### Aquatic ecotoxicity

| Product/ingredient name | Test | Result | Species | Exposure |
|-------------------------|------|--------|---------|----------|
|-------------------------|------|--------|---------|----------|

## 12 . Ecological Information

|  |   |                                       |  |          |
|--|---|---------------------------------------|--|----------|
| N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide | - | Acute LC50 1.4 to 1.7 ppm Fresh water | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss                                   | 96 hours |
| 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether            | - | Acute EC50 100 ppb Fresh water        | Daphnia - Water flea - Daphnia magna - <24 hours   | 48 hours |
|  | - | Acute EC50 0.51 ppm Fresh water       | Daphnia - Water flea - Daphnia magna - <24 hours   | 48 hours |
|  | - | Acute LC50 4.2 mg/L Fresh water       | Fish - Bluegill - Lepomis macrochirus - 0.7 g  | 96 hours |
|  | - | Acute LC50 3.4 mg/L Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.6 g                           | 96 hours |
|  | - | Acute LC50 1.9 mg/L Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 1 g                             | 96 hours |
|  | - | Acute LC50 1.8 mg/L Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 1 g                             | 96 hours |
|  | - | Acute LC50 1.06 mg/L Fresh water      | Daphnia - Water flea - Daphnia magna - Neonate - <24 hours                                   | 48 hours |
|  | - | Acute LC50 4000 ppb Fresh water       | Fish - Bluegill - Lepomis macrochirus  | 96 hours |
|  | - | Acute LC50 1860 ppb Fresh water       | Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss                                   | 96 hours |
|  | - | Acute LC50 13.4 to 18 ppb Fresh water | Fish - Bluegill - Lepomis macrochirus  | 96 hours |
|  | - | Acute LC50 8.8 ppb Marine water       | Fish - Sheepshead minnow - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
|  | - | Acute LC50 2.4 to 3.2 ppb Fresh water | Fish - Rainbow trout,donaldson trout -   | 96 hours |

## 12 . Ecological Information

|                            |   |  |  |          |
|----------------------------|---|--|--|----------|
|                            | - | Acute LC50 3.94 ppm Marine water       | Oncorhynchus mykiss<br>Fish - Sheepshead minnow -<br>Cyprinodon variegatus | 96 hours |
|                            | - | Acute LC50 2830 ug/L Fresh water       | Daphnia - Water flea - Daphnia magna - <=48 hours                          | 48 hours |
|                            | - | Acute LC50 1620 ug/L Fresh water       | Daphnia - Water flea - Daphnia pulex - <=48 hours                          | 48 hours |
|                            | - | Acute LC50 1000 ug/L Fresh water       | Crustaceans - Water flea - Ceriodaphnia dubia - <=48 hours                 | 48 hours |
|                            | - | Acute LC50 650 ug/L Fresh water        | Crustaceans - Water flea - Ceriodaphnia dubia - Neonate                    | 48 hours |
|                            | - | Acute LC50 330 ug/L Fresh water        | Crustaceans - Water flea - Ceriodaphnia dubia - Neonate - <24 hours        | 48 hours |
| Pyrethrins and Pyrethroids | - | Acute EC50 265 ppb Fresh water         | Daphnia - Water flea - Daphnia magna                                       | 48 hours |
|                            | - | Acute EC50 42 ppb Fresh water          | Crustaceans - Water flea - Simocephalus serrulatus                         | 48 hours |
|                            | - | Acute EC50 25 ppb Fresh water          | Daphnia - Water flea - Daphnia magna                                       | 48 hours |
|                            | - | Acute EC50 11.6 ppb Fresh water        | Daphnia - Water flea - Daphnia magna - <=24 hours                          | 48 hours |
|                            | - | Acute EC50 6.7 ppb Fresh water         | Daphnia - Water flea - Daphnia magna - <=24 hours                          | 48 hours |
|                            | - | Acute EC50 42 ug/L Fresh water         | Crustaceans - Water flea - Simocephalus serrulatus - Larvae                | 48 hours |
|                            | - | Acute EC50 25 ug/L Fresh water         | Daphnia - Water flea - Daphnia pulex - Larvae                              | 48 hours |
|                            | - | Acute LC50 18.7 ppb Fresh water        | Fish - Bluegill - Lepomis macrochirus                                      | 96 hours |
|                            | - | Acute LC50 16 to 17.7 ppb Marine water | Fish - Sheepshead minnow - Cyprinodon                                      | 96 hours |



## 12 . Ecological Information

|   |   |  |          |
|---|---|--|----------|
| - | Acute LC50 10<br>ppb Fresh water            | variegatus<br>Fish - Bluegill -<br>Lepomis<br>macrochirus                | 96 hours |
| - | Acute LC50 5.1<br>ppb Fresh water           | Fish - Rainbow<br>trout,donaldson<br>trout -<br>Oncorhynchus<br>mykiss   | 96 hours |
| - | Acute LC50 3.8<br>ppb Marine water          | Fish -<br>Sheepshead<br>minnow -<br>Cyprinodon<br>variegatus             | 96 hours |
| - | Acute LC50 3.4<br>to 4.6 ppb Fresh<br>water | Fish - Bluegill -<br>Lepomis<br>macrochirus                              | 96 hours |
| - | Acute LC50 3.2<br>ppb Fresh water           | Fish - Rainbow<br>trout,donaldson<br>trout -<br>Oncorhynchus<br>mykiss   | 96 hours |
| - | Acute LC50 18<br>ug/L Fresh water           | Crustaceans -<br>elc:o3n0:7pt -<br>Gammarus<br>lacustris - 2<br>months   | 48 hours |
| - | Acute LC50 17<br>ug/L Fresh water           | Fish - Northern<br>pike - Esox<br>lucius - 0.8 g                         | 96 hours |
| - | Acute LC50 14.6<br>ug/L Fresh water         | Fish -<br>Smallmouth bass<br>- Micropterus<br>dolomieu - 0.9 g           | 96 hours |
| - | Acute LC50 8.96<br>ug/L Fresh water         | Fish - Channel<br>catfish - Ictalurus<br>punctatus - 0.7 g               | 96 hours |
| - | Acute LC50 4.42<br>ug/L Marine<br>water     | Crustaceans -<br>American lobster<br>- Homarus<br>americanus -<br>Larvae | 48 hours |
| - | Acute LC50 1.39<br>ug/L Marine<br>water     | Crustaceans -<br>American lobster<br>- Homarus<br>americanus -<br>Larvae | 48 hours |
| - | Acute LC50 0.73<br>ug/L Marine<br>water     | Crustaceans -<br>American lobster<br>- Homarus<br>americanus -<br>Larvae | 48 hours |

## 13 . Disposal Considerations

### Waste disposal

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. 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 emptied 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.




Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14 . Transport Information

| Regulatory information    | UN number | Shipping name  | Classes | PG* | Label | Additional information  |
|---------------------------|-----------|--|---------|-----|-------|---|
| <b>DOT Classification</b> | UN2903    | Pesticide, Liquid, Toxic, Flammable, N.O.S. Marine Pollutant | 6.1(3)  | III |       | -   |
| <b>TDG Classification</b> | UN2903    | Pesticide, Liquid, Toxic, Flammable, N.O.S. Marine Pollutant | 6.1(3)  | III |       | Considered 'Limited Quantity' when container is less than, or equal to 1 liter. |
|                           |           |  |         |     |       |   |

## 14 . Transport Information

|                              |        |  |                |   |   |   |
|------------------------------|--------|--|----------------|---|---|---|
| <b>Mexico Classification</b> | UN2903 | Pesticide, Liquid, Toxic, Flammable, N.O.S. Marine Pollutant | Not available. | - | <br><br> | - |
| PG* : Packing group          |        |  |                |   |   |   |

## 15 . Regulatory Information

### United States

#### HCS Classification

Combustible liquid  
Highly toxic material  
Target organ effects

#### U.S. Federal regulations

**TSCA 8(a) IUR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** Not determined.

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.

**SARA 302/304 emergency planning and notification:** No products were found.

**SARA 302/304/311/312 hazardous chemicals:** 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether; Pyrethrins and Pyrethroids; N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether: Immediate (acute) health hazard, Delayed (chronic) health hazard; Pyrethrins and Pyrethroids: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide: Immediate (acute) health hazard, Delayed (chronic) health hazard

**Clean Air Act (CAA) 112 accidental release prevention:** No products were found.

#### Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)

Not 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 313

|  | <u>Product name</u>                             | <u>CAS number</u> | <u>Concentration</u> |
|--|---|-------------------|----------------------|
| <b>Form R - Reporting requirements</b> | 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether | 51-03-6           | 0.95 - 5             |
| <b>Supplier notification</b>           | 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether | 51-03-6           | 0.95 - 5             |

## 15 . Regulatory Information

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

### State regulations

**Connecticut Carcinogen Reporting:** None of the components are listed.  
**Connecticut Hazardous Material Survey:** None of the components are listed.  
**Florida substances:** None of the components are listed.  
**Illinois Chemical Safety Act:** None of the components are listed.  
**Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.  
**Louisiana Reporting:** None of the components are listed.  
**Louisiana Spill:** None of the components are listed.  
**Massachusetts Spill:** None of the components are listed.  
**Massachusetts Substances:** The following components are listed: PYRETHRUM  
**Michigan Critical Material:** None of the components are listed.  
**Minnesota Hazardous Substances:** None of the components are listed.  
**New Jersey Hazardous Substances:** The following components are listed: PYRETHRUM; PYRETHRINS AND PYRETHROIDS; PIPERONYL BUTOXIDE; 1,3-BENZODIOXOLE, 5-[[2-(2-BUTOXYETHOXY)ETHOXY]METHYL]-6-PROPYL-  
**New Jersey Spill:** None of the components are listed.  
**New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.  
**New York Acutely Hazardous Substances:** The following components are listed:  
 Pyrethrins  
**New York Toxic Chemical Release Reporting:** None of the components are listed.  
**Pennsylvania RTK Hazardous Substances:** The following components are listed:  
 PYRETHRINS AND PYRETHROIDS  
**Rhode Island Hazardous Substances:** None of the components are listed.

### United States inventory (TSCA 8b)

Not determined.

### Canada

#### WHMIS (Canada)

Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).  
 Class D-1A: Material causing immediate and serious toxic effects (Very toxic).  
 Class D-2A: Material causing other toxic effects (Very toxic).  
 Class D-2B: Material causing other toxic effects (Toxic).

#### Canadian lists

**CEPA Toxic substances:** None of the components are listed.  
**Canadian ARET:** None of the components are listed.  
**Canadian NPRI:** The following components are listed: Light aromatic solvent naphtha  
**Alberta Designated Substances:** None of the components are listed.  
**Ontario Designated Substances:** None of the components are listed.  
**Quebec Designated Substances:** None of the components are listed.

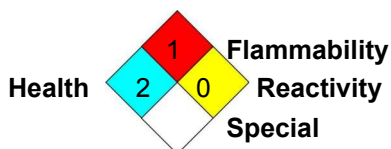
#### Canada inventory

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### Mexico

#### Classification



### EU regulations

## 15 . Regulatory Information

Hazard symbol or symbols



Risk phrases

R45- May cause cancer.  
 R46- May cause heritable genetic damage.  
 R21- Also harmful in contact with skin.  
 R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

S53- Avoid exposure - obtain special instructions before use.  
 S2- Keep out of the reach of children.  
 S29- Do not empty into drains.  
 S36/37- Wear suitable protective clothing and gloves.  
 S46- If swallowed, seek medical advice immediately and show this container or label.  
 S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

### International regulations

International lists

**Australia inventory (AICS):** All components are listed or exempted.  
**China inventory (IECSC):** All components are listed or exempted.  
**Japan inventory:** Not determined.  
**Korea inventory:** Not determined.  
**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.  
**Philippines inventory (PICCS):** All components are listed or exempted.

Chemical Weapons  
 Convention List  
 Schedule I Chemicals

Not listed

Chemical Weapons  
 Convention List  
 Schedule II Chemicals

Not listed

Chemical Weapons  
 Convention List  
 Schedule III Chemicals

Not listed

## 16 . Other information

Label requirements

COMBUSTIBLE LIQUID AND VAPOR. MAY BE FATAL IF ABSORBED THROUGH SKIN. HARMFUL IF SWALLOWED. MAY CAUSE EYE IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

Hazardous Material  
 Information System  
 (U.S.A.)

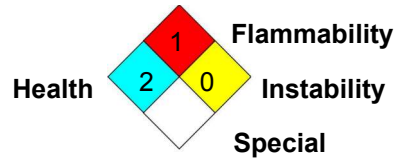
|                  |   |
|------------------|---|
| Health           | 2 |
| Flammability     | 1 |
| Physical hazards | 0 |
|                  |   |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material. Suggested protective clothing might not be adequate. Consult a specialist before handling this product.

## 16 . Other information

National Fire Protection  
Association (U.S.A.)



Date of issue 9/17/2013.

Version 3.07

▣ Indicates information that has changed from previously issued version.

### Notice to Reader:

The buyer assumes all risk in connection with the use of this material. The buyer assumes all responsibility for ensuring this material is used in a safe manner in compliance with applicable environmental, health and safety laws, policies and guidelines. Agrium Inc. assumes no responsibility or liability for the information supplied on this sheet, including any damages or injury caused thereby. Agrium Inc. does not warrant the fitness of this material for any particular use and assumes no responsibility for injury or damage caused directly or indirectly by or related to the use of the material. The information contained in this sheet is developed from what Agrium Inc. believes to be accurate and reliable sources, and is based on the opinions and facts available on the date of preparation.