



Nufarm Tralkoxydim Liquid Safety Data Sheet

Issue Date: 2017-12-21

Supersedes Date: 2017-05-17

{Reserved}

1. Identification

Product Name: Nufarm Tralkoxydim Liquid

PCP Registration No.: 32078

Refer to the approved product label for handling and use instructions.

Product Type: Herbicide

Supplier: Nufarm Agriculture Inc.
Suite 350, 2618 Hopewell Place NE
Calgary, Alberta, T1Y 7J7, Canada
1-800-868-5444

Telephone Numbers: 24 Hour Emergency Response Number, Chemtrec, 1-800-424-9300.
For medical emergencies, ProPharma Group, 1-877-325-1840.
For product and use information, Nufarm Agriculture Inc.,
1-800-868-5444.

2. Hazard Identification

Classified according to UN GHS Version 5.

Physical Hazards:

None

Health Hazards:

| | |
|-----------------------------|-------------|
| Acute toxicity (Oral) | Category 5 |
| Acute toxicity (Dermal) | Category 5 |
| Acute toxicity (Inhalation) | Category 5 |
| Eye irritation | Category 2B |
| Skin irritation | Category 3 |

Environmental Hazards:

Hazardous to aquatic environment, acute Category 2

Signal Word:

WARNING

Hazard Statements:

May be harmful if swallowed. May be harmful in contact with skin. May be harmful if inhaled. Causes eye irritation. Causes mild skin irritation. Toxic to aquatic life.

Precautionary Statements:

Causes eye irritation. Wear goggles or face shield during mixing/loading.
May be harmful if swallowed, in contact with skin or inhaled. Do not eat, drink or smoke when

Nufarm Tralkoxydim Liquid Safety Data Sheet

Issue Date: 2017-12-21

Supersedes Date: 2017-05-17

{Reserved}

using this product.

Wear coveralls over a long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal. After use, wash hands and other exposed skin. Remove and wash contaminated clothing before reuse.

Avoid breathing spray mist. Use only outdoors or in a well-ventilated area.

3. Composition / Information on Ingredients

| Hazardous Components | CAS No. | Wt. % |
|--|------------|-------|
| Tralkoxydim | 87820-88-0 | 34-36 |
| Chemical Synonyms: 2-[1-(ethoxymino)propyl]-3-hydroxy-5-(2,4,6-trimethylphenyl)-2-cyclohexen-1-one | | |

Other ingredients are considered non-hazardous.

Content as Expressed on Product Label

Tralkoxydim ... 400 g/L

4. First Aid Measures

If swallowed, call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

In case of eye contact, hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

If inhaled, move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you, when seeking medical attention.

5. Fire-fighting Measures

Extinguishing Media: Water fog, alcohol foam, carbon dioxide, dry chemical.

Special Firefighting Procedures: Firefighters should wear self-contained breathing apparatus and full protective clothing when fighting chemical fires. Minimize and contain water runoff.

Flash Point:..... >100 C

Conditions of Flammability: None

Hazardous Decomposition Products:... During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Nufarm Tralkoxydim Liquid Safety Data Sheet

Issue Date: 2017-12-21

Supersedes Date: 2017-05-17

{Reserved}

National Fire Protection Association (NFPA) Hazard Rating:

Rating for this product: Health: 1 Flammability: 1 Reactivity: 0

Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

6. Accidental Release Measures

Use safety equipment and procedures appropriate to the size of the spill. Keep unnecessary people away. Avoid runoff to natural waters and sewers. Surround and absorb spills with inert material such as perlite, sawdust, clay granules, vermiculite, sand or dirt. Contain all affected material in a closed, labeled container for proper disposal. Isolate from other waste materials. Clean contaminated area such as hard surfaces with detergent and water, collecting cleaning solution for proper disposal. Large spills to soil or similar surfaces may necessitate removal of top soil.

7. Handling and Storage

Handling: Avoid contact with skin, eyes and clothing. Wear goggles or face shield during mixing/loading. Wear coveralls over a long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal. After use, wash hands and other exposed skin. Remove and wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Avoid breathing spray mist. Use only outdoors or in a well-ventilated area.

Storage: Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs. Store above -5C. Shake well before using.

8. Exposure Controls / Personal Protection

Engineering Controls: Use only outdoors or in a well-ventilated area.

Personal Protective Equipment: Goggles or face shield, coveralls, long-sleeved shirt, long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal.

Exposure Guidelines:

| Component | TWA* | STEL** | Reference/Note |
|-------------|---------------------|--------|-------------------------------|
| Tralkoxydim | 3 mg/m ³ | NE | Manufacturer's recommendation |

*Time-weighted Average, 8-hour unless otherwise noted.

**Short Term Exposure Limit

NE = Not Established

Refer to approved product label for additional exposure control guidance.

9. Physical and Chemical Properties

NOTE: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification. If no value is determined for the formulation, the value listed is the most relevant value of the predominant ingredient(s).

Nufarm Tralkoxydim Liquid Safety Data Sheet

Issue Date: 2017-12-21

Supersedes Date: 2017-05-17

{Reserved}

| | |
|---|---|
| Appearance (physical state, colour, etc.) | light beige liquid suspension |
| Odour | none noticeable |
| Odour threshold | not available |
| pH | 7 – 8 (undiluted) |
| Melting point / Freezing point | not available |
| Initial boiling point and boiling range | not available |
| Flash point | >100C |
| Evaporation rate | not available |
| Flammability (solids, gases) | not applicable |
| Upper / Lower flammability or explosive limits ... | not available |
| Vapour pressure | 3.7 x 10 ⁻⁴ mPa at 20C (tralkoxydim) |
| Vapour density | not available |
| Relative density | 1.16 @ 20C |
| Solubility(ies) | 7 mg/L in water @ pH 7, 20C (tralkoxydim) |
| Partition coefficient: n-octanol/water | logP = 2.1 @ 20C (tralkoxydim) |
| Autoignition temperature | ~510C |
| Decomposition temperature | not available |
| Viscosity | 884 cPs @ 20C |

10. Stability and Reactivity

Reactivity: Not reactive.

Chemical Stability: Stable under normal handling and storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: None known.

Incompatible Materials: None known.

Hazardous Decomposition Products: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

11. Toxicological Information

Likely routes of exposure: Inhalation, ingestion, skin and eye contact.

Eye contact: Causes eye irritation.

Skin contact: Causes mild skin irritation.

Ingestion: May be harmful if swallowed. No significant adverse health effects are expected if only small amounts are swallowed.

Inhalation: May be harmful if inhaled.

Medical Conditions Aggravated by Exposure: Skin exposure may aggravate preexisting skin conditions. Inhalation of mist may aggravate preexisting respiratory conditions.

Toxicological Data:

Acute oral LD₅₀ (mg/kg) 2950 (Rat)

Acute dermal LD₅₀ (mg/kg) >5000 (Rat)

Acute inhalation LC₅₀ (mg/l) >9.52 (Rat, 4-hour exposure)

Nufarm Tralkoxydim Liquid Safety Data Sheet

Issue Date: 2017-12-21

Supersedes Date: 2017-05-17

{Reserved}

Skin corrosion/irritation Considered as slightly irritating to skin (Rabbit)
Serious eye damage/irritation Considered as mildly irritating to the eye (Rabbit)
Respiratory or skin sensitization ... Not considered to be a contact dermal sensitizer (Guinea Pig)
Germ cell mutagenicity Tralkoxydim shows no evidence of genotoxicity.
Carcinogenicity Tralkoxydim shows no evidence of carcinogenic effects in hamster studies. The US-EPA has classified tralkoxydim as a likely human carcinogen based on a) increased Leydig cell tumors in a rat study, b) no data to support a mechanism for tumors that is not relevant to man, and c) inadequate data on a second species.
Reproductive toxicity Tralkoxydim is not considered a reproductive toxin.

12. Ecological Information

Ecotoxicity:

Data are for tralkoxydim, from published sources.

Aquatic Invertebrate: 48-Hour EC₅₀ (mg/L) >175 (*Daphnia*)

Fish: 96-Hour LC₅₀ (mg/L) >7.2 (Rainbow Trout), >6.1 (Bluegill Sunfish), >8.2 (Mirror Carp)

Algae: 120-Hour EC₅₀ (mg/L) 7.6 (green algae)

Birds: Oral LD₅₀ (mg/kg) >3020 (Mallard Duck), 4430 (partridge); 5-Day Dietary LC₅₀ >7400 (Mallard Duck), 6237 (quail)

Bees: LD₅₀ >100 µg/bee (contact), 54 µg/bee (oral)

Persistence and Degradability: Tralkoxydim degrades rapidly in soil; typical DT₅₀ = 2-5 d (aerobic), or 3 weeks (anaerobic flooded soil). Primary metabolites are also extensively degraded; within 30 days. Degradation is primarily microbial, but soil surface photolysis, aqueous photolysis and hydrolysis all occur.

Mobility in Soil: The Koc of 30-300 predicts relatively strong binding. Rapid degradation ensures that there is no significant movement of either tralkoxydim or degradates.

Bioaccumulation Potential: Negligible.

13. Disposal Considerations

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Disposal should be made in accordance with federal, provincial and local regulations.

Do not reuse container for any purpose. If applicable, return container in accordance with return program. If a recyclable container, dispose of at a container collection site. Contact local distributor, dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site, triple or pressure rinse the empty container adding rinsings to spray tank, and make container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

14. Transport Information

Canadian TDG Description (Road & Rail): Not regulated for transport by road/rail.

**Nufarm Tralkoxydim Liquid
Safety Data Sheet**

Issue Date: 2017-12-21

Supersedes Date: 2017-05-17

{Reserved}

United States

DOT Description:

Not Regulated

IMO IMDG CODE:

Not Regulated

15. Regulatory Information

Pest Control Products Act Registration Number: 32078

Read the approved label, authorized under the *Pest Control Products Act*, prior to using or handling the pest control product.

This chemical is a pest control product registered by Health Canada Pest Management Regulatory Agency and is subject to certain labelling requirements under the *Pest Control Products Act*. These requirements differ from the classification criteria and hazard information required for GHS-consistent safety data sheets. Following is the hazard information required on the pest control product label:

CAUTION: SKIN AND EYE IRRITANT

WHMIS exempt.

16. Other Information

This Safety Data Sheet (SDS) is designed to comply with the Globally Harmonized System (GHS) of classification, and the *Hazardous Products Regulations*.

This SDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use. The product labeling provides that information specifically for product use as intended.

Company and published information is used in the development of this SDS. The information herein is presented in good faith and believed accurate at the date of publication. However, no warranty, expressed or implied, is given.

Revisions to the last issue: Addition of PMRA guidance info to Section 15.

Issue Date: 2017-12-21

Supersedes Date: 2017-05-17