



**Nufarm Chaperone Herbicide
Safety Data Sheet**

Issue Date: 2017-12-20

Supersedes Date: 2017-05-17

{Reserved}

1. Identification

Product Name: Nufarm Chaperone Herbicide

PCP Registration No.: 30475

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:

Eye irritation Category 2B

Acute toxicity (Dermal) Category 5

Environmental Hazards:

Hazardous to aquatic environment, acute Category 1

Signal Word:

WARNING

Hazard Statements:

Causes eye irritation. May be harmful in contact with skin. Very toxic to aquatic life.



Precautionary Statements:

Nufarm Chaperone Herbicide

Safety Data Sheet

Issue Date: 2017-12-20

Supersedes Date: 2017-05-17

{Reserved}

Causes eye irritation. Avoid contact with skin, eyes and clothing. Wear goggles or face shield during mixing/loading. Wear coveralls or 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 dust. Use only outdoors or in a well-ventilated area.

This product contains an active ingredient which is toxic to aquatic organisms.

3. Composition / Information on Ingredients

Hazardous Components	CAS No.	Wt. %
Chlorimuron-ethyl	90982-32-4	25
Chemical Synonyms: ethyl 2-[[[(4-chloro-6-methoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]benzoate		
Titanium dioxide (possible contaminant of clay ingredient)	13463-67-7	<1
Chemical Synonyms: Titania; TiO ₂		
Crystalline silica, quartz (possible contaminant of clay ingredient)	14808-60-7	<1
Chemical Synonyms: Silicone dioxide; SiO ₂ ; CAS No. 7631-86-9, 1317-95-9		

Other ingredients are considered non-hazardous.

Content as Expressed on Product Label

Chlorimuron-ethyl ... 25%

4. First Aid Measures

If swallowed, call a poison control centre or doctor immediately for treatment advice. 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.

If in eyes, 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

Nufarm Chaperone Herbicide Safety Data Sheet

Issue Date: 2017-12-20

Supersedes Date: 2017-05-17

{Reserved}

Extinguishing Media: Product does not support sustained combustion. Use extinguishing media appropriate to surrounding fire conditions.

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: Does not flash.

Conditions of Flammability: None. Under severe dusting conditions, this material may form explosive mixtures in air.

Hazardous Decomposition Products: ... Carbon oxides, sulphur oxides, nitrogen oxides, hydrogen chloride, irritating fumes and smoke.

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. Contain and sweep up material of small spills. Do not vacuum up material to prevent generation of fine dust. For large spills outdoors, cover to protect from moisture, and contain the spill area to prevent spread or dispersion. Avoid contamination of natural waters and sewers. 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. After use, wash hands and other exposed skin. Wear coveralls or a long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves. Rinse gloves before removal. Remove and wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Avoid breathing dust.

Storage: Store the container tightly closed away from seeds, fertilizer, plants and foodstuffs. Store in a cool, dry place.

8. Exposure Controls / Personal Protection

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

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

Exposure Guidelines:

Component	TWA*	STEL**	Reference/Note
Kaolin clay	2 mg/m ³	NE	WorkSafeBC, 2015
- Titanium dioxide (contaminant of kaolin)	10 mg/m ³ (total dust) 3 mg/m ³	NE	WorkSafeBC, 2015

Nufarm Chaperone Herbicide Safety Data Sheet

Issue Date: 2017-12-20

Supersedes Date: 2017-05-17

{Reserved}

	(respirable fraction)		
- Crystalline silica, quartz (contaminant of kaolin)	0.025 mg/m ³	NE	WorkSafeBC, 2015
Chlorimuron-ethyl	10 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)	NE	Manufacturer's recommendation
Sucrose	10 mg/m ³ (total dust) 3 mg/m ³ (respirable fraction)	NE	WorkSafeBC, 2015

*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).

Appearance (physical state, colour, etc.) ivory-coloured granule
Odour none
Odour threshold not available
pH not available
Melting point / Freezing point not applicable
Initial boiling point and boiling range not applicable
Flash point not applicable
Evaporation rate not applicable
Flammability (solids, gases) 330C (ignition temperature)
Upper / Lower flammability or explosive limits ... Lower = 0.212 g/L
Vapour pressure 4.9 x 10⁻⁷ mPa @ 25C (chlorimuron-ethyl)
Vapour density not available
Relative density 0.66-0.72 g/mL (loose bulk density)
Solubility(ies) dispersible in water, sparingly soluble
Partition coefficient: n-octanol/water logP = 0.11 @ pH 7 (chlorimuron-ethyl)
Autoignition temperature not available
Decomposition temperature not available
Viscosity not applicable

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: Carbon oxides, sulphur oxides, nitrogen oxides, hydrogen chloride, irritating fumes and smoke.

11. Toxicological Information

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

Eye contact: Causes eye irritation.

Skin contact: May cause mild skin irritation, generally of minimal degree.

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. May cause irritation of the mucous membranes.

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

Toxicological Data:

Acute oral LD₅₀ (mg/kg) >5000 (Rat)

Acute dermal LD₅₀ (mg/kg) >2000 (Rabbit)

Acute inhalation LC₅₀ (mg/l) >5.0 (Rat, 4-hour exposure)

Skin corrosion/irritation Considered as non-irritating to skin (rabbit)

Serious eye damage/irritation Considered as slightly irritating to the eye (rabbit)

Respiratory or skin sensitization ... Not considered a skin sensitizer (Guinea pig)

Germ cell mutagenicity Chlorimuron-ethyl has not shown genotoxic effects.

Carcinogenicity Chlorimuron-ethyl is not considered to be a carcinogen.

The inert formulant component may contain crystalline silica (quartz) and titanium dioxide.

Chronic inhalation of crystalline silica may lead to silicosis, a form of disabling pulmonary

fibrosis. The International Agency for Research on Cancer (IARC) has concluded there is

limited evidence of the carcinogenicity of crystalline silica to humans (Group 1). IARC has

concluded titanium dioxide is possibly carcinogenic to humans (Group 2B).

Reproductive toxicity Animal reproduction studies with chlorimuron-ethyl

indicate there is no increased sensitivity of the young relative to maternal animals.

12. Ecological Information

Ecotoxicity:

Data are for chlorimuron-ethyl, from published sources.

Aquatic Invertebrate: 48-Hour EC₅₀ (mg/L) 1000 (*Daphnia*)

Fish: 96-Hour LC₅₀ (mg/L) >1000 (Rainbow Trout), >100 (Bluegill Sunfish)

Algae: 72-Hour EC₅₀ (mg/L) 0.001 (*Pseudokirchneriella*)

Nufarm Chaperone Herbicide Safety Data Sheet

Issue Date: 2017-12-20

Supersedes Date: 2017-05-17

{Reserved}

Birds: Oral LD₅₀ (mg/kg) >2510; Dietary LC₅₀ >5620 ppm (Mallard Duck, Bobwhite Quail)

Bees: 48-Hour LD₅₀ >12.5 µg/bee

Persistence and Degradability: Microbial degradation of chlorimuron-ethyl is slow in all soil pH conditions with an average half-life of 7 to 8 weeks. Chlorimuron-ethyl persists longer in high pH soils.

Mobility in Soil: Chlorimuron-ethyl mobility in soils is dependent on pH and soil organic matter content. Chlorimuron-ethyl is more highly adsorbed to organic matter at lower pH.

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):

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,
(chlorimuron-ethyl), Class 9, PG III

Marine pollutant.

Section 1.45.1 of the TDG Regulations provides an exemption from documentation and safety marks only for this product and only when transported by a road or railway vehicle.

United States:

DOT Description:

< 882 Pounds per complete package

Non Regulated – See 49 CFR 173.132(b)(3) & 172.101 Appendix A

≥ 882 Pounds per complete package

UN 3077, Environmentally hazardous substance, solid, n.o.s.
(chlorimuron-ethyl), 9, III, Marine Pollutant

**Nufarm Chaperone Herbicide
Safety Data Sheet**

Issue Date: 2017-12-20

Supersedes Date: 2017-05-17

{Reserved}

IMDG

UN 3077, Environmentally hazardous substance, solid, n.o.s.
(chlorimuron-ethyl), 9, III, Marine Pollutant

IATA

UN 3077, Environmentally hazardous substance, solid, n.o.s.
(chlorimuron-ethyl), 9, III, Marine Pollutant

15. Regulatory Information

Pest Control Products Act Registration Number: 30475

OPAC Schedule: 3

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:

WARNING – CONTAINS THE ALLERGEN SULFITE

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.

**Nufarm Chaperone Herbicide
Safety Data Sheet**

Issue Date: 2017-12-20

Supersedes Date: 2017-05-17

{Reserved}

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

Issue Date: 2017-12-20

Supersedes Date: 2017-05-17