

# SAFETY DATA SHEET

according to the Hazardous Products Regulations



## Predicade™ Broadleaf

Version 1.1	Revision Date: 04/19/2024	SDS Number: 50001041	Date of last issue: - Date of first issue: 03/01/2018
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### SECTION 1. IDENTIFICATION

#### Product identifier

**Product name** Predicade™ Broadleaf

#### Other means of identification

**Product code** 50001041

**Product Registration Number** PCP #31713

#### Recommended use of the chemical and restrictions on use

**Recommended use** Herbicide

**Restrictions on use** Use as recommended by the label.

#### Details of the supplier of the safety data sheet

##### Manufacturer

FMC Corporation  
2929 WALNUT ST  
PHILADELPHIA PA 19104  
USA  
Phone (AgHotline): 1-833-FMC-PPAC (1-833-362-7722),  
Web: <https://ag.fmc.com/ca/en>  
SDS-Info@fmc.com

##### Supplier Address

FMC of Canada Limited  
6755 Mississauga Road, Suite 204  
Mississauga, ON L5N 7Y2  
Canada

##### Emergency telephone

For leak, fire, spill or accident emergencies, call:  
1 800 / 424-9300 (CHEMTREC - U.S.A.)  
1 703 / 741-5970 (CHEMTREC - International)  
1 703 / 527-3887 (CHEMTREC - Alternate)

Medical emergency:  
U.S.A. & Canada: +1 800 / 331-3148  
All other countries: +1 651 / 632-6793 (Collect)

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### SECTION 2. HAZARDS IDENTIFICATION

#### **GHS classification in accordance with the Hazardous Products Regulations**

Skin sensitization : Category 1B

Specific target organ toxicity : Category 2 (Thyroid, Nervous system)

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- repeated exposure

### GHS label elements

Hazard pictograms



Signal Word

: Warning

Hazard Statements

: H317 May cause an allergic skin reaction.  
H373 May cause damage to organs (Thyroid, Nervous system) through prolonged or repeated exposure.

Precautionary Statements

: **Prevention:**

P260 Do not breathe dust.  
P264 Wash skin thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/ eye protection/ face protection.

**Response:**

P302 + P352 IF ON SKIN: Wash with plenty of water.  
P314 Get medical advice/ attention if you feel unwell.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

### Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
tribenuron-methyl (ISO)	tribenuron-methyl (ISO)	101200-48-0	25
thifensulfuron-methyl (ISO)	thifensulfuron-methyl (ISO)	79277-27-3	25
sodium carbonate	sodium car-	497-19-8	>= 10 - < 30 *

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Sodium phosphate tribasic dodecahydrate	bonate Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0	>= 5 - < 10 *
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\* Actual concentration or concentration range is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : Remove to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.
- In case of skin contact : If on clothes, remove clothes.  
If on skin, rinse well with water.  
Wash off with soap and plenty of water.  
Get medical attention immediately if irritation develops and persists.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
Rinse mouth with water.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.  
Do not induce vomiting without medical advice.
- Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.  
May cause damage to organs through prolonged or repeated exposure.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing  
Avoid inhalation, ingestion and contact with skin and eyes.  
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- Notes to physician : Treat symptomatically.  
Immediate medical attention is required in case of ingestion.

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### SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Dry chemical, CO<sub>2</sub>, water spray or regular foam.
- Unsuitable extinguishing media : Do not spread spilled material with high-pressure water streams.
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Fire may produce irritating, corrosive and/or toxic gases.  
Carbon oxides  
Sulfur oxides  
Nitrogen oxides (NO<sub>x</sub>)  
phosphorus oxides
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for fire-fighters : Firefighters should wear protective clothing and self-contained breathing apparatus.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Do not touch or walk through the spilled material.  
If it can be safely done, stop the leak.  
Ensure adequate ventilation.  
Use personal protective equipment.  
Avoid dust formation.  
Avoid breathing dust.  
Never return spills in original containers for re-use.  
Mark the contaminated area with signs and prevent access to unauthorized personnel.  
Only qualified personnel equipped with suitable protective equipment may intervene.
- Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.

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### SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Avoid dust formation.  
Provide appropriate exhaust ventilation at places where dust is formed.

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- Advice on safe handling : Avoid formation of respirable particles.  
Do not breathe vapors/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Electrical installations / working materials must comply with the technological safety standards.
- Further information on storage conditions : The product is stable under normal conditions of warehouse storage.  
Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.
- Further information on storage stability : No decomposition if stored and applied as directed.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

### Personal protective equipment

- Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
- Filter type : Particulates type
- Hand protection Material : Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.
- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.

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Skin and body protection	: Dust impervious protective suit Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Protective measures	: Plan first aid action before beginning work with this product. Always have on hand a first-aid kit, together with proper instructions. Wear suitable protective equipment. When using do not eat, drink or smoke. In the context of professional plant protection use as recommended, the end user must refer to the label and the instructions for use.
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: solid
Form	: granular
Color	: light brown
Odor	: slight
Odor Threshold	: not determined
pH	: 9.4 (20 °C) Concentration: 10 g/l 1 %
Melting point/freezing point	: not determined
Boiling point/boiling range	: Decomposition
Flash point	: not determined
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Not highly flammable, may be ignitable
Self-ignition	: 387 °C
Upper explosion limit / Upper flammability limit	: not determined

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Vapor pressure	:	Not available for this mixture.
Relative vapor density	:	not determined
Bulk density	:	ca. 707 kg/m <sup>3</sup> packed
Solubility(ies)		
Water solubility	:	soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	Not available for this mixture.
Decomposition temperature	:	not determined
Viscosity		
Viscosity, kinematic	:	not determined
Explosive properties	:	Not explosive
Oxidizing properties	:	The product is not oxidizing.
Particle size	:	No data available

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Dust may form explosive mixture in air.
Conditions to avoid	:	Heat, flames and sparks. Protect from frost, heat and sunlight. Heating of the mixture may evolve harmful and irritant vapours.
Incompatible materials	:	Avoid strong acids, bases, and oxidizers.
Hazardous decomposition products	:	Stable under recommended storage conditions.

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

Based on available data, the classification criteria are not met.

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### Product:

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: Fixed Dose Method  
GLP: yes  
Remarks: Information source: Internal study report
- Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: Calculation method
- Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg  
Method: Calculation method

### Components:

#### **tribenuron-methyl (ISO):**

- Acute oral toxicity : LD50: > 5,000 mg/kg  
Method: OECD Test Guideline 425
- Acute inhalation toxicity : LC50 (Rat): > 5.14 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403
- Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 402

#### **thifensulfuron-methyl (ISO):**

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
- Acute inhalation toxicity : LC50 (Rat): > 7.9 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist
- Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

#### **sodium carbonate:**

- Acute oral toxicity : LD50 (Rat, male and female): 2,800 mg/kg
- Acute inhalation toxicity : LC50 (Rat, male): 2.3 mg/l  
Exposure time: 2 h  
Test atmosphere: dust/mist
- Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Target Organs: Skin  
Symptoms: Erythema

#### **Sodium phosphate tribasic dodecahydrate:**

- Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg  
Method: OECD Test Guideline 420

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Remarks: no mortality

- Acute inhalation toxicity : LC50 (Rat, male and female): > 0.83 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: Based on data from similar materials no mortality
- Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Remarks: Based on data from similar materials no mortality

### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

#### Components:

##### **tribenuron-methyl (ISO):**

- Species : Rabbit  
Assessment : Not classified as irritant  
Method : OECD Test Guideline 404  
Remarks : May cause mild irritation.  
Based on available data, the classification criteria are not met.

##### **thifensulfuron-methyl (ISO):**

- Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Remarks : Minimal effects that do not meet the threshold for classification.

##### **sodium carbonate:**

- Species : Rabbit  
Exposure time : 4 h  
Method : OECD Test Guideline 404  
Result : No skin irritation

##### **Sodium phosphate tribasic dodecahydrate:**

- Species : Rabbit  
Result : Skin irritation

##### **Serious eye damage/eye irritation**

Based on available data, the classification criteria are not met.

#### Product:

- Species : Rabbit  
Result : No eye irritation  
Assessment : Not classified as irritant

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GLP : yes  
Remarks : Based on data from a similar product.

### Components:

#### **tribenuron-methyl (ISO):**

Species : Rabbit  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
Remarks : May cause mild irritation.  
Based on available data, the classification criteria are not met.

#### **thifensulfuron-methyl (ISO):**

Result : No eye irritation  
Method : OECD Test Guideline 405

#### **sodium carbonate:**

Species : Rabbit  
Result : Irritation to eyes, reversing within 21 days

#### **Sodium phosphate tribasic dodecahydrate:**

Species : Rabbit  
Result : Irritation to eyes, reversing within 21 days  
Method : EPA OTS 798.4500

### **Respiratory or skin sensitization**

#### **Skin sensitization**

May cause an allergic skin reaction.

#### **Respiratory sensitization**

Based on available data, the classification criteria are not met.

### Product:

Species : Guinea pig  
Assessment : The product is a skin sensitizer, sub-category 1B.  
Result : Causes sensitization.  
Remarks : Based on data from a similar product.

### Components:

#### **tribenuron-methyl (ISO):**

Test Type : Maximization Test  
Species : Guinea pig  
Assessment : May cause sensitization by skin contact.  
Method : OECD Test Guideline 406  
Result : Causes skin sensitization.

#### **thifensulfuron-methyl (ISO):**

Species : Guinea pig

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Method : OECD Test Guideline 429  
Result : Does not cause skin sensitization.

### Sodium phosphate tribasic dodecahydrate:

Test Type : Local lymph node assay (LLNA)  
Species : Mouse  
Method : OECD Test Guideline 429  
Result : Does not cause skin sensitization.  
Remarks : Based on data from similar materials

### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### Product:

Genotoxicity in vitro : Remarks: The product contains no ingredients known to be mutagenic.

#### Components:

##### **tribenuron-methyl (ISO):**

Germ cell mutagenicity - Assessment : Did not show mutagenic effects in animal experiments.

##### **thifensulfuron-methyl (ISO):**

Genotoxicity in vitro : Test system: Chinese hamster ovary cells  
Method: OECD Test Guideline 476  
Result: negative  
Remarks: In vitro tests did not show mutagenic effects

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

##### **sodium carbonate:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)  
Result: negative  
Remarks: Based on data from similar materials

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

##### **Sodium phosphate tribasic dodecahydrate:**

Genotoxicity in vitro : Test Type: gene mutation test  
Method: OECD Test Guideline 490  
Result: negative  
Remarks: Based on data from similar materials

Test Type: Micronucleus test  
Method: OECD Test Guideline 487

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Result: negative

Germ cell mutagenicity - Assessment : In vitro tests did not show mutagenic effects

### Carcinogenicity

Based on available data, the classification criteria are not met.

#### Product:

Remarks : The product contains no ingredients known to be carcinogenic.

### Components:

#### **tribenuron-methyl (ISO):**

Remarks : No significant adverse effects were reported

Carcinogenicity - Assessment : Did not show carcinogenic effects in animal experiments.

#### **thifensulfuron-methyl (ISO):**

Carcinogenicity - Assessment : Weight of evidence does not support classification as a carcinogen

### **Reproductive toxicity**

Based on available data, the classification criteria are not met.

#### Product:

Effects on fertility : Remarks: The product contains no ingredients found to have adverse effects on reproduction.

### Components:

#### **tribenuron-methyl (ISO):**

Reproductive toxicity - Assessment : No toxicity to reproduction  
Animal testing did not show any effects on fetal development.,  
Did not show teratogenic effects in animal experiments.

#### **thifensulfuron-methyl (ISO):**

Reproductive toxicity - Assessment : Did not show teratogenic effects in animal experiments.

### **sodium carbonate:**

Effects on fetal development : Species: Rat  
Application Route: Oral  
Dose: 2.45, 11.4, 52.9, 245 milligram per kilogram  
Duration of Single Treatment: 6 - 15 d  
General Toxicity Maternal: NOAEL: > 245 mg/kg body weight  
Teratogenicity: NOAEL: > 245 mg/kg body weight

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Result: negative

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

### Sodium phosphate tribasic dodecahydrate:

Effects on fertility : Species: Rat, male and female  
Application Route: Oral  
Dose: 1000 mg/kg bw/day  
General Toxicity Parent: NOAEL: 1,000 mg/kg bw/day  
General Toxicity F1: NOAEL: 1,000 mg/kg bw/day  
Method: OECD Test Guideline 422  
Result: negative  
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: reproductive and developmental toxicity study  
Species: Rat  
Application Route: Oral  
Dose: 4.1, 19, 88.3, 410 mg/kg bw/day  
Duration of Single Treatment: 20 d  
General Toxicity Maternal: NOAEL: > 410 mg/kg bw/day  
Embryo-fetal toxicity.: NOAEL: > 410 mg/kg bw/day  
Result: negative  
Remarks: Based on data from similar materials

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

### STOT-single exposure

Based on available data, the classification criteria are not met.

### Components:

#### tribenuron-methyl (ISO):

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

### Sodium phosphate tribasic dodecahydrate:

Assessment : May cause respiratory irritation.

### STOT-repeated exposure

May cause damage to organs (Thyroid, Nervous system) through prolonged or repeated exposure.

### Components:

#### tribenuron-methyl (ISO):

Target Organs : Thyroid, Nervous system  
Assessment : May cause damage to organs through prolonged or repeated exposure.

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### sodium carbonate:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Repeated dose toxicity

#### Components:

##### tribenuron-methyl (ISO):

Species : Rabbit  
LOAEL : 80 mg/kg  
Target Organs : Thyroid, Nervous system  
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.  
Remarks : Increased mortality or reduced survival

##### thifensulfuron-methyl (ISO):

Species : Rat  
LOAEL : ca. 200 mg/kg  
Exposure time : 90 d  
Target Organs : No specific target organs noted  
Symptoms : Reduced body weight

### sodium carbonate:

Species : Rat, male and female  
NOAEL : > 0.01 mg/kg  
Application Route : inhalation (dust/mist/fume)  
Test atmosphere : dust/mist

### Sodium phosphate tribasic dodecahydrate:

Species : Dog, female  
NOAEL : 492.77 mg/kg bw/day  
LOAEL : 1433.56 mg/kg bw/day  
Application Route : Oral - feed  
Exposure time : 90 d  
Dose : 129.31, 492.77, 1433.56 mg/kg bw/day  
Target Organs : Kidney  
Remarks : Based on data from similar materials

Species : Dog, male  
NOAEL : 322.88 mg/kg bw/day  
LOAEL : 1107.12 mg/kg bw/day  
Application Route : Oral - feed  
Exposure time : 90 d  
Dose : 94.23, 322.88, 1107.12 mg/kg bw/day  
Target Organs : Kidney  
Remarks : Based on data from similar materials

### Aspiration toxicity

Based on available data, the classification criteria are not met.

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### Components:

#### **tribenuron-methyl (ISO):**

The substance does not have properties associated with aspiration hazard potential.

### **Further information**

#### Product:

Remarks : Information presented in section 11 conforms to the requirements of the Hazardous Products Regulations (HPR) and WHMIS 2015. See Section 15 for applicable information conforming to the requirements of the Pest Management Regulatory Agency (PMRA).

Remarks : No data available

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## SECTION 12. ECOLOGICAL INFORMATION

### **Ecotoxicity**

#### Components:

#### **tribenuron-methyl (ISO):**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 738 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Crustaceans): > 320 mg/l  
Exposure time: 48 h  
EC50 (Daphnia magna (Water flea)): > 894 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.0208 mg/l  
Exposure time: 120 h  
EC50 (Lemna gibba (duckweed)): 0.00424 mg/l  
Exposure time: 14 d

Toxicity to fish (Chronic toxicity) : NOEC (Cyprinodon variegatus (sheepshead minnow)): 114 mg/l  
Exposure time: 21 d  
Method: OECD Test Guideline 211  
NOEC (Oncorhynchus mykiss (rainbow trout)): 560 mg/l  
Exposure time: 21 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 41 mg/l  
Exposure time: 21 d

Toxicity to soil dwelling organisms : NOEC (Eisenia fetida (earthworms)): 3.2 mg/kg

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ganisms	Exposure time: 56 d
Toxicity to terrestrial organisms	: LD50 ( <i>Colinus virginianus</i> (Bobwhite quail)): > 2,250 mg/kg
	LD50 ( <i>Colinus virginianus</i> (Bobwhite quail)): > 5,620 ppm Remarks: Dietary
	LD50 ( <i>Anas platyrhynchos</i> (Mallard duck)): > 5,620 ppm Remarks: Dietary
	LD50 ( <i>Apis mellifera</i> (bees)): > 98.4 µg/bee Exposure time: 48 h End point: Acute contact toxicity
	LD50 ( <i>Apis mellifera</i> (bees)): > 9.1 µg/bee Exposure time: 48 h End point: Acute oral toxicity

### Ecotoxicology Assessment

Acute aquatic toxicity	: Very toxic to aquatic life.
Chronic aquatic toxicity	: Very toxic to aquatic life with long lasting effects.

### thifensulfuron-methyl (ISO):

Toxicity to fish	: LC50 ( <i>Salmo gairdneri</i> ): 100 mg/l Exposure time: 96 h
	LC50 ( <i>Oncorhynchus mykiss</i> (rainbow trout)): > 250 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 ( <i>Daphnia magna</i> (Water flea)): 470 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: IC50 (green algae): 0.0159 mg/l Exposure time: 72 h
	ErC50 ( <i>Raphidocelis subcapitata</i> (freshwater green alga)): 1.4 mg/l Exposure time: 72 h
	EC50 ( <i>Lemna minor</i> (duckweed)): 1.3 µg/l
Toxicity to fish (Chronic toxicity)	: NOEC ( <i>Salmo gairdneri</i> ): 250 mg/l Exposure time: 28 d
	NOEC ( <i>Oncorhynchus mykiss</i> (rainbow trout)): 10.6 mg/l Exposure time: 21 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC ( <i>Daphnia magna</i> (Water flea)): 100 mg/l Exposure time: 21 d

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- Toxicity to soil dwelling organisms : LC50 (Eisenia fetida (earthworms)): > 2,000 mg/kg
- Toxicity to terrestrial organisms : LD50 (Anas platyrhynchos (Mallard duck)): > 2,510 mg/kg
- LD50 (Anas platyrhynchos (Mallard duck)): > 5,620 ppm  
Remarks: Dietary
- LD50 (Colinus virginianus (Bobwhite quail)): > 5,620 ppm
- LD50 (Apis mellifera (bees)): > 7.1 µg/bee  
End point: Acute oral toxicity
- LD50 (Apis mellifera (bees)): > 100 µg/bee  
End point: Acute contact toxicity

### Ecotoxicology Assessment

- Acute aquatic toxicity : Very toxic to aquatic life.
- Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

### sodium carbonate:

- Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 300 mg/l  
Exposure time: 96 h  
Test Type: static test
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia (water flea)): 200 mg/l  
Exposure time: 48 h  
Test Type: semi-static test

### Sodium phosphate tribasic dodecahydrate:

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203  
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202  
Remarks: Based on data from similar materials
- Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Method: EU Method C3  
Remarks: Based on data from similar materials
- NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Method: EU Method C3  
Remarks: Based on data from similar materials

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- Toxicity to microorganisms : EC50 (activated sludge): 1,000 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209  
Remarks: Based on data from similar materials
- NOEC (activated sludge): 1,000 mg/l  
Exposure time: 3 h  
Method: OECD Test Guideline 209  
Remarks: Based on data from similar materials
- Toxicity to soil dwelling organisms : LC50 (*Eisenia fetida* (earthworms)): > 3,500 mg/kg  
Exposure time: 14 d  
Method: OECD Test Guideline 207  
Remarks: Based on data from similar materials

### Persistence and degradability

#### Product:

- Biodegradability : Result: Not readily biodegradable.  
Remarks: Estimation based on data obtained on active ingredient.

#### Components:

##### **tribenuron-methyl (ISO):**

- Biodegradability : Biodegradation: 29.4 %  
Exposure time: 28 d

##### **thifensulfuron-methyl (ISO):**

- Biodegradability : Remarks: Not readily biodegradable.  
Primary degradation half-lives vary with circumstances, from a few days to a few weeks in aerobic water and soil.

##### **sodium carbonate:**

- Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

### Bioaccumulative potential

#### Product:

- Bioaccumulation : Remarks: Does not bioaccumulate.  
Estimation based on data obtained on active ingredient.

#### Components:

##### **tribenuron-methyl (ISO):**

- Bioaccumulation : Bioconcentration factor (BCF): < 1  
Remarks: Does not bioaccumulate.

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Partition coefficient: n-octanol/water : log Pow: -0.38

### thifensulfuron-methyl (ISO):

Bioaccumulation : Bioconcentration factor (BCF): 1  
Remarks: Does not bioaccumulate.

### sodium carbonate:

Bioaccumulation : Remarks: Does not bioaccumulate.

### Mobility in soil

#### Product:

Distribution among environmental compartments : Remarks: Under normal conditions the active ingredient/s is/are of high to intermediate mobility in soil. There is a potential for leaching to groundwater.

### Components:

#### tribenuron-methyl (ISO):

Distribution among environmental compartments : Remarks: Under normal conditions the active ingredient/s is/are of high to intermediate mobility in soil. There is a potential for leaching to groundwater.

#### thifensulfuron-methyl (ISO):

Distribution among environmental compartments : Koc: 28.3, log Koc: 1.45  
Remarks: Highly mobile in soils

Stability in soil :

### Other adverse effects

#### Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Very toxic to aquatic life with long lasting effects.

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Do not re-use empty containers.

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Packaging that is not properly emptied must be disposed of as the unused product.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

## SECTION 14. TRANSPORT INFORMATION

### International Regulations

#### UNRTDG

UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thifensulfuron-methyl, Tribenuron-methyl)
Class	:	9
Subsidiary risk	:	ENVIRONM.
Packing group	:	III
Labels	:	9 (ENVIRONM.)
Environmentally hazardous	:	yes

#### IATA-DGR

UN/ID No.	:	UN 3077
Proper shipping name	:	Environmentally hazardous substance, solid, n.o.s. (Thifensulfuron-methyl, Tribenuron-methyl)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	956
Packing instruction (passenger aircraft)	:	956
Environmentally hazardous	:	yes

#### IMDG-Code

UN number	:	UN 3077
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thifensulfuron-methyl, Tribenuron-methyl)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### Domestic regulation

#### TDG

Not regulated as a dangerous good

#### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data

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Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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## SECTION 15. REGULATORY INFORMATION

### The ingredients of this product are reported in the following inventories:

TCSI	: Not in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AIIC	: Not in compliance with the inventory
DSL	: This product contains the following components that are not on the Canadian DSL nor NDSL.

TBM 500 SG

ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: Not in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: Not in compliance with the inventory

### Canadian lists

No substances are subject to a Significant New Activity Notification.

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## SECTION 16. OTHER INFORMATION

### Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and

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Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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End of Material Safety Data Sheet