

SAFETY DATA SHEET



Panoflex(TM) Herbicide (with TotalSol(R) soluble granules)

Version 1.1 Revision Date: 10/14/2022 SDS Number: 50000089 Date of last issue: -
Date of first issue: 02/01/2018

SECTION 1. IDENTIFICATION

Product identifier

Product name Panoflex(TM) Herbicide (with TotalSol(R) soluble granules)

Other means of identification

Product code 50000089

Recommended use of the chemical and restrictions on use

Recommended use Can be used as herbicide only.

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
(215) 299-6000 (General Information)
SDS-Info@fmc.com

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)

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin sensitization : Category 1

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

GHS label elements

Hazard pictograms :



Signal Word : Warning

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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.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water and soap.
P314 Get medical advice/ attention if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

Chemical name	CAS-No.	Concentration (% w/w)
Tribenuron-methyl	101200-48-0	40
thifensulfuron-methyl (ISO)	79277-27-3	10
sodium carbonate	497-19-8	>= 5 - < 10
Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0	>= 5 - < 10

Actual concentration 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 : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.

In case of skin contact : If on skin, rinse well with water.

In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.

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- Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.
- 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.
- Notes to physician : Treat symptomatically.
-

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray, fog, or regular foam.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Nitrogen oxides (NOx)
Sulfur oxides
Carbon oxides
Hydrogen cyanide
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 : Wear self-contained breathing apparatus for firefighting if necessary.
-

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
Ensure adequate ventilation.
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.
For disposal considerations see section 13.

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- 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.

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.
- Advice on safe handling : Avoid formation of respirable particles.
Do not breathe vapors/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- 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 stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0	STEL	5 mg/m ³	US WEEL

Personal protective equipment

- Respiratory protection : General and local exhaust ventilation is recommended to

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maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

- 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
- 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.
- 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

- Appearance : solid, granular
- Color : light brown
- Odor : none
- Odor Threshold : No data available
- pH : 9.4

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	:	No data available
	:	No data available
Flash point	:	No data available
Evaporation rate	:	Not available for this mixture.
Flammability (solid, gas)	:	The product is not flammable.
Self-ignition	:	No data available Not available for this mixture.
Upper explosion limit / Upper flammability limit	:	Not available for this mixture.
Lower explosion limit / Lower flammability limit	:	Not available for this mixture.
Vapor pressure	:	Not available for this mixture.
Relative vapor density	:	Not available for this mixture.
Relative density	:	Not available for this mixture.
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	Not available for this mixture.
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Particle size	:	No data available

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 reac-	:	No decomposition if stored and applied as directed.

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tions : Dust may form explosive mixture in air.

Conditions to avoid : No data available

Incompatible materials : Not applicable

Hazardous decomposition products : No decomposition if stored normally.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Remarks: (Data on the product itself)
Information source: Internal study report

Acute inhalation toxicity : LC50 (Rat): > 5.0 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Remarks: Information given is based on data obtained from similar substances.
Information source: Internal study report

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Remarks: (Data on the product itself)
Information source: Internal study report

Skin corrosion/irritation

Not classified based on available information.

Product:

Species : Rabbit
Result : No skin irritation
Remarks : (Data on the product itself)
Information source: Internal study report

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species : Rabbit
Result : No eye irritation
Remarks : (Data on the product itself)
Information source: Internal study report

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Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Product:

Species : Guinea pig
Result : Causes sensitization.
Remarks : (Data on the product itself)
Information source: Internal study report

Germ cell mutagenicity

Not classified based on available information.

Components:

Tribenuron-methyl:

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.

Phosphoric acid, trisodium salt, 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

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Method: OECD Test Guideline 487
Result: negative

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

Carcinogenicity

Not classified based on available information.

Components:

Tribenuron-methyl:

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

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

Tribenuron-methyl:

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

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Teratogenicity: NOAEL: > 245 mg/kg body weight
Result: negative

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

Phosphoric acid, trisodium salt, dodecahydrate:

Effects on fertility : Species: Rat, male and female
Application Route: Oral
Dose: 1000 mg/kgbw
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: 4.1,19,88.3,410mg/kgbw/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

Not classified based on available information.

Components:

Tribenuron-methyl:

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

Phosphoric acid, trisodium salt, dodecahydrate:

Assessment : May cause respiratory irritation.

STOT-repeated exposure

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

Product:

Remarks : Refer to acute toxicity and/or repeated dose toxicity data for more information on target organs if applicable.

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Repeated dose toxicity

Components:

Tribenuron-methyl:

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

Phosphoric acid, trisodium salt, 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 : 129.31,492.77,1433.56mg/kgbw/d
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 : 94.23,322.88,1107.12mg/kgbw/da
Target Organs : Kidney
Remarks : Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

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Further information

Product:

- Remarks : Information given is based on data on the components.
- Remarks : Information presented in this Section conforms to the requirements of the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard of 2012. See Section 15 for applicable information conforming to the requirements of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as required by the US Environmental Protection Agency (EPA), or by state Regulatory Agencies.
- Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Tribenuron-methyl:

- 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 or- : NOEC (Eisenia fetida (earthworms)): 3.2 mg/kg

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ganisms Exposure time: 56 d

Toxicity to terrestrial organisms : LD50 (Colinus virginianus (Bobwhite quail)): > 2,250 mg/kg

LD50 (Colinus virginianus (Bobwhite quail)): > 5,620 ppm
Remarks: Dietary

LD50 (Anas platyrhynchos (Mallard duck)): > 5,620 ppm
Remarks: Dietary

LD50 (Apis mellifera (bees)): > 98.4 µg/bee
Exposure time: 48 h
End point: Acute contact toxicity

LD50 (Apis mellifera (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 (Salmo gairdneri): 100 mg/l
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): > 250 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (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 (Raphidocelis subcapitata (freshwater green alga)): 1.4 mg/l
Exposure time: 72 h

EC50 (Lemna minor (duckweed)): 1.3 µg/l

Toxicity to fish (Chronic toxicity) : NOEC (Salmo gairdneri): 250 mg/l
Exposure time: 28 d

NOEC (Oncorhynchus mykiss (rainbow trout)): 10.6 mg/l
Exposure time: 21 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (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

Phosphoric acid, trisodium salt, 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

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Remarks: Based on data from similar materials

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

Components:

Tribenuron-methyl:

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

Components:

Tribenuron-methyl:

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

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

thifensulfuron-methyl (ISO):

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

sodium carbonate:

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Bioaccumulation : Remarks: Does not bioaccumulate.

Mobility in soil

Components:

Tribenuron-methyl:

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:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Environmental hazards
Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.
Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

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

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.
Dispose of as unused product.
Do not re-use empty containers.

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SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

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

IATA-DGR

UN/ID No. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(Tribenuron-methyl, Thifensulfuron-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.
(Tribenuron-methyl, Thifensulfuron-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

49 CFR

UN/ID/NA number : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(Tribenuron-methyl, Thifensulfuron-methyl)
Class : 9
Packing group : III
Labels : CLASS 9
ERG Code : 171
Marine pollutant : yes (Tribenuron-methyl, Thifensulfuron-methyl)
Remarks : Shipment by ground under DOT is non-regulated; however it

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may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

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

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Tribenuron-methyl	101200-48-0	>= 30 - < 50 %
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Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0	>= 5 - < 10 %
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This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations

Massachusetts Right To Know

Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0
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Pennsylvania Right To Know

Tribenuron-methyl	101200-48-0
D-Glucopyranose, 4-O-.beta.-D-galactopyranosyl-, monohydrate	10039-26-6
thifensulfuron-methyl (ISO)	79277-27-3
sodium carbonate	497-19-8
Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

California List of Hazardous Substances

Phosphoric acid, trisodium salt, dodecahydrate	10101-89-0
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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.

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

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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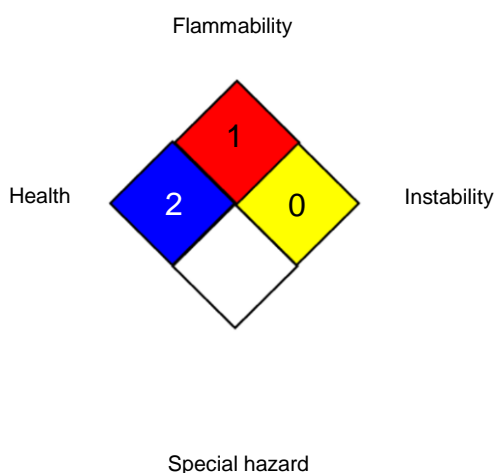
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SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



0 No health threat, 1 Slightly Hazardous, 2 Hazardous, 3 Extreme danger, 4 Deadly

HMIS® IV:

HEALTH	*	2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)
US WEEL / STEL : Short-Term TWA

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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, Bioaccumu-

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lative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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

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End of Material Safety Data Sheet