

SAFETY DATA SHEET



GRANSTAR(R) PLATINUM SX

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	02.06.2022	50000135	Date of first issue: 02.06.2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name GRANSTAR(R) PLATINUM SX

Other means of identification

Product code 50000135

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.3 Details of the supplier of the safety data sheet

Supplier Address FMC CHEMICALS (PTY) LTD
COMPANY REGISTRATION NUMBER: 1988/001451/07
WEST END OFFICE PARK, BUILDING C
CNR. WEST AVE & HALL STREET
CENTURION, 0014

E-mail address: SDS-Info@fmc.com (E-Mail General Information)

1.4 Emergency telephone

For leak, fire, spill or accident emergencies, call:
South Africa: 0-800-983-611 (CHEMTREC)

Medical emergency:
For any emergency or poisoning contact: Griffon Poison Information Centre (24 hrs) - +27-(0)-82-446-8946

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2 H319: Causes serious eye irritation.

Skin sensitization, Category 1 H317: May cause an allergic skin reaction.

Specific target organ toxicity - repeated exposure, Category 2 H373: May cause damage to organs through prolonged or repeated exposure.

Short-term (acute) aquatic hazard, Category 1 H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Category 1 H410: Very toxic to aquatic life with long lasting effects.

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effects.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal Word : Warning

Hazard Statements :
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements :
Prevention:
P260 Do not breathe dust.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P314 Get medical advice/ attention if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P391 Collect spillage.

Hazardous ingredients which must be listed on the label:
Tribenuron-methyl

2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Tribenuron-methyl	101200-48-0 401-190-1 607-177-00-9	Skin Sens. 1; H317 STOT RE 2; H373 (Thyroid, Nervous system)	>= 25 - < 30

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		Aquatic Acute 1; H400 Aquatic Chronic 1; H410	
metsulfuron-methyl (ISO)	74223-64-6 613-139-00-2	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	$\geq 2.5 - < 10$
sodium carbonate	497-19-8 207-838-8 011-005-00-2	Eye Irrit. 2; H319	$\geq 1 - < 2.5$
sodium dimethylnaphthalenesulphonate	27178-87-6 248-301-8	Skin Irrit. 2; H315 Eye Dam. 1; H318	$\geq 0.1 - < 0.25$
Substances with a workplace exposure limit :			
sucrose	57-50-1 200-334-9		$\geq 1 - < 10$

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of 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.
- Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.
- If inhaled : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- 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.
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.

4.2 Most important symptoms and effects, both acute and delayed

- Risks : May cause an allergic skin reaction.
Causes serious eye irritation.
May cause damage to organs through prolonged or repeated

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exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Dry chemical, CO₂, water spray or regular foam.

Unsuitable extinguishing media : Do not spread spilled material with high-pressure water streams.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Nitrogen oxides (NO_x)
Sulfur oxides
Carbon oxides
Oxides of phosphorus

5.3 Advice for firefighters

Special protective equipment for fire-fighters : Firefighters should wear protective clothing and self-contained breathing apparatus.

Specific extinguishing methods : Remove undamaged containers from fire area if it is safe to do so.
Use a water spray to cool fully closed containers.

Further information : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Evacuate personnel to safe areas.
Use personal protective equipment.
If it can be safely done, stop the leak.
Do not touch or walk through the spilled material.
Avoid dust formation.
Avoid breathing dust.
Ensure adequate ventilation.

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6.2 Environmental precautions

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.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Never return spills in original containers for re-use.
Collect as much of the spill as possible with a suitable absorbent material.
Pick up and transfer to properly labeled containers.

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

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.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : General industrial hygiene practice. Avoid contact with skin, eyes and clothing. Do not breathe dust.

When using do not eat or drink. When using do not smoke.
Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage : Keep container tightly closed in a dry and well-ventilated

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areas and containers

place. Containers which are opened must be carefully re-sealed 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.

7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
sucrose	57-50-1	OEL-RL	10 mg/m3	ZA OEL
Further information	Occupational Exposure Limits - Restricted Limits For Hazardous Chemical Agents			
sucrose	57-50-1	OEL-RL	10 mg/m3	ZA OEL
Further information	Occupational Exposure Limits - Restricted Limits For Hazardous Chemical Agents			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Routes of exposure	Potential health effects	Value
sodium carbonate	Workers	Inhalation	Long-term local effects	10 mg/m3
	Consumers	Inhalation	Acute local effects	10 mg/m3
Phosphoric acid, trisodium salt, dodecahydrate	Workers	Inhalation	Long-term systemic effects	4.07 mg/m3
	Consumers	Inhalation	Long-term systemic effects	3.04 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Phosphoric acid, trisodium salt, dodecahydrate	Sewage treatment plant	50 mg/l

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection
Material : Protective gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

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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.
Respiratory protection	:	In the case of dust or aerosol formation use respirator with an approved filter.
Protective measures	:	Plan first aid action before beginning work with this product.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	solid
Color	:	brown, light brown
Odor	:	slight, acrid
Odor Threshold	:	No data available
pH	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	The product is not flammable.
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	No data available
Bulk density	:	650 - 750 kg/m ³ packed
Solubility(ies) Water solubility	:	dispersible

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Partition coefficient: n-octanol/water : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : Non-oxidizing

9.2 Other information

Molecular weight : Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

10.4 Conditions to avoid

Conditions to avoid : Avoid extreme temperatures.
Avoid dust formation.

10.5 Incompatible materials

Materials to avoid : Avoid strong acids, bases, and oxidizers.

10.6 Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Components:

Tribenuron-methyl:

Acute oral toxicity : LD50: > 5,000 mg/kg
Method: OECD Test Guideline 425

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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

metsulfuron-methyl (ISO):

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: US EPA Test Guideline OPP 81-1

Acute inhalation toxicity : LC50 (Rat): > 5.3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: US EPA Test Guideline OPPTS 870.1300
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: US EPA Test Guideline OPP 81-2

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 dimethylnaphthalenesulphonate:

Acute oral toxicity : LD50 (Rat): > 2,000 - 5,000 mg/kg
Method: OECD Test Guideline 401

LD50 (Rat): > 3,000 - 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Method: OECD Test Guideline 404
Remarks: Based on data from similar materials

sucrose:

Acute oral toxicity : LD50 (Rat): 29,700 mg/kg

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Skin corrosion/irritation

Product:

Remarks : May cause skin irritation and/or dermatitis.

Components:

Tribenuron-methyl:

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.

metsulfuron-methyl (ISO):

Species : Rabbit
Method : US EPA Test Guideline OPP 81-5
Result : No skin irritation

sodium carbonate:

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

sodium dimethylnaphthalenesulphonate:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Skin irritation

Serious eye damage/eye irritation

Product:

Remarks : May cause irreversible eye damage.

Components:

Tribenuron-methyl:

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.

metsulfuron-methyl (ISO):

Species : Rabbit
Method : EPA OPP 81-4
Result : slight irritation

sodium carbonate:

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

sodium dimethylnaphthalenesulphonate:

Method : OECD Test Guideline 437
Result : Irreversible effects on the eye

Species : Rabbit
Method : OECD Test Guideline 405
Result : Irreversible effects on the eye
Remarks : Based on data from similar materials

Respiratory or skin sensitization

Product:

Remarks : Causes sensitization.

Components:

Tribenuron-methyl:

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

metsulfuron-methyl (ISO):

Test Type : Maximization Test
Routes of exposure : Skin contact
Species : Guinea pig
Method : US EPA Test Guideline OPPTS 870.2600
Result : Not a skin sensitizer.

sodium dimethylnaphthalenesulphonate:

Result : Does not cause skin sensitization.

Germ cell mutagenicity

Components:

Tribenuron-methyl:

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

metsulfuron-methyl (ISO):

Genotoxicity in vitro : Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: Chromosome aberration test in vitro
Metabolic activation: Metabolic activation

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Result: positive

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Result: negative

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

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 dimethylnaphthalenesulphonate:

Genotoxicity in vitro : Method: OECD Test Guideline 471
Result: negative

Method: OECD Test Guideline 476
Result: negative

Carcinogenicity

Components:

Tribenuron-methyl:

Remarks : No significant adverse effects were reported

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

metsulfuron-methyl (ISO):

Species : Rat, male and female
Exposure time : 104 weeks
NOAEL : 500 ppm
Result : negative

Species : Mouse, male and female
Exposure time : 18 month(s)
NOAEL : 5,000 ppm
Result : negative

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

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Reproductive toxicity**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.

metsulfuron-methyl (ISO):

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rabbit, female
Application Route: Ingestion
Symptoms: Maternal effects.
Result: negative

Test Type: Embryo-fetal development
Species: Rat, female
Application Route: Ingestion
Symptoms: Maternal effects.
Result: negative

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

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
Result: negative

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

STOT-single exposure**Components:****Tribenuron-methyl:**

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

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STOT-repeated exposure**Components:****Tribenuron-methyl:**

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

metsulfuron-methyl (ISO):

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

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

metsulfuron-methyl (ISO):

Species	:	Rat, male and female
NOEL	:	1000 ppm
Application Route	:	Oral - feed
Exposure time	:	90 days
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

Aspiration toxicity**Components:****Tribenuron-methyl:**

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

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Neurological effects**Components:****metsulfuron-methyl (ISO):**

No neurotoxicity observed in animal studies.

Further information**Product:**

Remarks : No data available

SECTION 12: Ecological information**12.1 Toxicity****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: 114 mg/l
Exposure time: 21 d
Species: Cyprinodon variegatus (sheepshead minnow)
Method: OECD Test Guideline 211

NOEC: 560 mg/l
Exposure time: 21 d
Species: Oncorhynchus mykiss (rainbow trout) |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC: 41 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea) |
| Toxicity to soil dwelling organisms | : | NOEC: 3.2 mg/kg
Exposure time: 56 d
Species: Eisenia fetida (earthworms) |
| Toxicity to terrestrial organ- | : | LD50: > 2,250 mg/kg |

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Species: *Colinus virginianus* (Bobwhite quail)

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

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

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

LD50: > 9.1 µg/bee
Exposure time: 48 h
End point: Acute oral toxicity
Species: *Apis mellifera* (bees)

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

metsulfuron-methyl (ISO):

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 113 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 120 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (*Lemna minor* (duckweed)): 0.16 µg/l
Exposure time: 14 d

EC50 (*Anabaena flos-aquae* (cyanobacterium)): 0.1134 mg/l
Exposure time: 72 h

IC50 (*Selenastrum capricornutum* (green algae)): 0.045 mg/l
Exposure time: 72 h

ErC50 (*Myriophyllum spicatum*): 0.23 µg/l

ErC50 (*Lemna gibba* (gibbous duckweed)): 0.57 µg/l

Toxicity to fish (Chronic toxicity) : NOEC: 68 mg/l
Exposure time: 21 d
Species: *Oncorhynchus mykiss* (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.5 mg/l
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)

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Toxicity to soil dwelling organisms : NOEC: 6 mg/kg
Exposure time: 56 d
Species: Eisenia fetida (earthworms)

Toxicity to terrestrial organisms : LD50: > 50 µg/bee
End point: Acute contact toxicity
Species: Apis mellifera (bees)

LD50: > 44.3 µg/bee
End point: Acute oral toxicity
Species: Apis mellifera (bees)

LD50: > 2,510 mg/kg
Species: Anas platyrhynchos (Mallard duck)

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 dimethylnaphthalenesulphonate:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 10 - 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC10 (Pseudokirchneriella subcapitata (green algae)): 135 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

EC50 (Pseudokirchneriella subcapitata (green algae)): > 810 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to microorganisms : EC10 (Pseudomonas putida): > 100 mg/l
Exposure time: 16.5 h
Method: DIN 38 412 Part 8
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10: > 1 - 10 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

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Ecotoxicology Assessment

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

sucrose:

Toxicity to fish : Remarks: No data available

12.2 Persistence and degradability**Components:****Tribenuron-methyl:**

Biodegradability : Biodegradation: 29.4 %
Exposure time: 28 d

metsulfuron-methyl (ISO):

Biodegradability : Result: Not readily biodegradable.
Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

sodium carbonate:

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

sodium dimethylnaphthalenesulphonate:

Biodegradability : Result: Inherently biodegradable.
Method: OECD Test Guideline 301D

sucrose:

Biodegradability : Remarks: No data available

12.3 Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: Bioaccumulation is unlikely.
Estimation based on data obtained on active ingredient.

Components:**Tribenuron-methyl:**

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

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

metsulfuron-methyl (ISO):

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

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Exposure time: 28 d
Bioconcentration factor (BCF): < 1
Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: -1.7 (25 °C)
pH: 7

sodium carbonate:

Bioaccumulation : Remarks: Does not bioaccumulate.

12.4 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.

metsulfuron-methyl (ISO):

Distribution among environmental compartments : Remarks: Moderately mobile in soil
Risk of leaching to ground water is high for some degradation products.

12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects

Product:

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

13.1 Waste treatment methods

Product : 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.

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Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number

IMDG : UN 3077
IATA : UN 3077

14.2 UN proper shipping name

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tribenuron-methyl, Metsulfuron-methyl)
IATA : Environmentally hazardous substance, solid, n.o.s. (Tribenuron-methyl, Metsulfuron-methyl)

14.3 Transport hazard class(es)

IMDG : 9
IATA : 9

14.4 Packing group

IMDG
Packing group : III
Labels : 9
EmS Code : F-A, S-F
IATA (Cargo)
Packing instruction (cargo aircraft) : 956
Packing instruction (LQ) : Y956
Packing group : III
Labels : Miscellaneous
IATA (Passenger)
Packing instruction (passenger aircraft) : 956
Packing instruction (LQ) : Y956
Packing group : III
Labels : Miscellaneous

14.5 Environmental hazards

IMDG
Marine pollutant : yes
IATA (Passenger)
Environmentally hazardous : yes
IATA (Cargo)
Environmentally hazardous : yes

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14.6 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.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****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

15.2 Chemical Safety Assessment**SECTION 16: Other information****Full text of H-Statements**

H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H373	: May cause damage to organs through prolonged or repeated exposure.

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H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard
Eye Dam. : Serious eye damage
Eye Irrit. : Eye irritation
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitization
STOT RE : Specific target organ toxicity - repeated exposure
ZA OEL : South Africa. The Regulations for Hazardous Chemical Agents, Occupational Exposure Limits
ZA OEL / OEL-RL : Occupational Exposure Limit Restricted limit - 8- hour exposure or equivalent (12 hour shifts)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; 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 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; 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

Other information :

Classification of the mixture:

Eye Irrit. 2	H319
Skin Sens. 1	H317

Classification procedure:

Calculation method
Calculation method

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STOT RE 2	H373	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

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