We create chemistry

Safety data sheet

1. Substance/preparation and manufacturer/supplier identification

Sharpen®

Use: crop protection product, herbicide

Manufacturer/supplier:
BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:
International emergency number:
Telephone: +49 180 2273-112

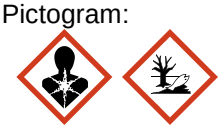
2. Hazard identification

Classification according to UN GHS 2009

Classification of the substance and mixture:
Reproductive toxicity: Cat. 2 (unborn child)
Hazardous to the aquatic environment - acute: Cat. 1
Hazardous to the aquatic environment - chronic: Cat. 1

Label elements and precautionary statement:

Pictogram:



Signal Word:
Warning

Hazard Statement:

H361	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statement:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.

Precautionary Statements (Response):

P391	Collect spillage.
P308 + P313	IF exposed or concerned: Get medical attention.

Precautionary Statements (Storage):

P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Other hazards which do not result in classification:
See section 12 - Results of PBT and vPvB assessment.
If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

crop protection product, herbicide, water dispersible granules

Hazardous ingredients

saflufenacil (ISO); N´-{2-chloro-4fluoro-5-[1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)pyrimedin-1-yl]benzoyl}-N-isopropyl-N-methylsulfamide

Content (W/W): 70.36 %	Repr.: Cat. 2 (unborn child)
CAS Number: 372137-35-4	Aquatic Acute: Cat. 1
	Aquatic Chronic: Cat. 1

Ammonium sulphate

Content (W/W): < 20 %	Acute Tox.: Cat. 5 (oral)
CAS Number: 7783-20-2	Aquatic Acute: Cat. 3

Lignin, alkali, reaction products with disodium sulfite and formaldehyde

Content (W/W): < 10 %	Eye Dam./Irrit.: Cat. 2A
CAS Number: 105859-97-0	STOT SE: Cat. 3 (irr. to respiratory syst.)

Residues (petroleum), catalytic reformer fractionator, sulfonated,polymers with formaldehyde, sodium salts

Content (W/W): < 10 %	Eye Dam./Irrit.: Cat. 2A
CAS Number: 68425-94-5	Aquatic Acute: Cat. 3
	Aquatic Chronic: Cat. 3

Naphthalenesulfonic acid, bis(1-methylethyl)-, sodium salt

Content (W/W): < 5 %	Acute Tox.: Cat. 4 (Inhalation - dust)
CAS Number: 1322-93-6	Acute Tox.: Cat. 4 (oral)
	Acute Tox.: Cat. 5 (dermal)
	Eye Dam./Irrit.: Cat. 1
	STOT SE: Cat. 3 (irr. to respiratory syst.)
	Aquatic Acute: Cat. 3
	Aquatic Chronic: Cat. 3

4. First-Aid Measures

General advice:
Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:
Wash thoroughly with soap and water

On contact with eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Note to physician:
Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far
Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:
water spray, foam, dry powder

Unsuitable extinguishing media for safety reasons:
carbon dioxide

Specific hazards:
carbon monoxide, carbon dioxide, ammonia, hydrogen chloride, nitrogen oxides, sulfur oxides, halogenated compounds
The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:
Avoid dust formation. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions:
Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:
For small amounts: Contain with dust binding material and dispose of.
For large amounts: Sweep/shovel up.
Avoid raising dust. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

7. Handling and Storage

Handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:
Dust can form an explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Avoid dust formation.

Dust explosion class: Dust explosion class 1 (Kst-value >0 up to 200 bar m s-1).

Storage

Segregate from foods and animal feeds.
Further information on storage conditions: Protect against moisture. Keep away from heat. Protect from direct sunlight.

Storage stability:
Storage duration: 24 Months

Protect from temperatures above: 50 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure controls and personal protection

Components with occupational exposure limits

No occupational exposure limits known.

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for lower concentrations or short-term effect: Particle filter with high efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P3 or FFP3).

Hand protection:
Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

Eye protection:
Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:
The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Keep away from food, drink and animal feeding stuffs. Store work clothing separately.

9. Physical and Chemical Properties

Form:	solid	
Colour:	light brown	
Odour:	odourless	
Odour threshold:	not applicable, odour not perceivable	
pH value:	approx. 4 - 6 (10 g/l, 25 °C)	
melting range:	approx. 189.9 - 193.4 °C	
Boiling point:	The product has not been tested.	
Flash point:	not applicable	
Evaporation rate:	not applicable	
Flammability (solid/gas):	not highly flammable	
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Thermal decomposition:	200 °C , 140 kJ/kg (onset temperature)	(DSC (OECD 113))
	250 °C , 310 kJ/kg (onset temperature)	(DSC (OECD 113))
	355 °C , 100 kJ/kg (onset temperature)	(DSC (OECD 113))
	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.	

Self ignition:	Temperature: 371 °C	(Method: Directive 92/69/EEC, A.16)
Self heating ability:	It is not a substance capable of spontaneous heating.	

Explosion hazard: not explosive
Fire promoting properties: not fire-propagating

Vapour pressure:
The value has not be determined because of the high melting point.

Density: approx. 1.61 g/cm3
(20 °C)
Bulk density: 540 - 600 kg/m3
(20 °C, 1,013 hPa)
585 - 645 kg/m3
(20 °C, 1,013 hPa)
Apparent density after tamping
Relative vapour density (air):
not applicable

Solubility in water: dispersible
Partitioning coefficient n-octanol/water (log Pow):
The statements are based on the properties of the individual components.
Information on: saflufenacil (ISO); N´-{2-chloro-4fluoro-5-[1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)pyrimedin-1-yl]benzoyl}-N-isopropyl-N-methylsulfamide
Partitioning coefficient n-octanol/water (log Pow): 2.6
(20 °C; pH value: 1.7)

Viscosity, dynamic:
not applicable, the product is a solid

10. Stability and Reactivity

Conditions to avoid:
See SDS section 7 - Handling and storage.

Thermal decomposition:	200 °C, 140 kJ/kg (DSC (OECD 113)) (onset temperature)
Thermal decomposition:	250 °C, 310 kJ/kg (DSC (OECD 113)) (onset temperature)
Thermal decomposition:	355 °C, 100 kJ/kg (DSC (OECD 113)) (onset temperature)
Thermal decomposition:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

Substances to avoid:
strong oxidizing agents, strong acids, strong bases

Hazardous reactions:
No hazardous reactions if stored and handled as prescribed/indicated.
The product is chemically stable.

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion.

Experimental/calculated data:
LD50 rat (oral): > 2,000 mg/kg
No mortality was observed.

LC50 (by inhalation): > 5 mg/l 4 h

LD50 rat (dermal): > 2,000 mg/kg
No mortality was observed.

Irritation

Assessment of irritating effects:
Not irritating to the eyes. Not irritating to the skin.

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant

Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:
There is no evidence of a skin-sensitizing potential.

Experimental/calculated data:
modified Buehler test guinea pig:

Germ cell mutagenicity

Assessment of mutagenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: saflufenacil (ISO); N´-{2-chloro-4fluoro-5-[1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)pyrimedin-1-yl]benzoyl}-N-isopropyl-N-methylsulfamide
Assessment of teratogenicity:
Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

Specific target organ toxicity (single exposure):

Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organtoxicity was observed after repeated administration to animals.

Aspiration hazard

No aspiration hazard expected.
The product has not been tested. The statement has been derived from the properties of the individual components.

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity

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

Toxicity to fish:
LC50 (96 h) > 100 mg/l, Oncorhynchus mykiss

Aquatic invertebrates:
(48 h) > 100 mg/l, Daphnia magna (static)

Aquatic plants:
EC50 (72 h) 0.1157 mg/l (growth rate), Pseudokirchneriella subcapitata

EC10 (72 h) 0.0387 mg/l (growth rate), Pseudokirchneriella subcapitata

Information on: saflufenacil (ISO); N´-{2-chloro-4fluoro-5-[1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)pyrimedin-1-yl]benzoyl}-N-isopropyl-N-methylsulfamide
Chronic toxicity to aquatic invertebrates:
No observed effect concentration (21 d), 2.5 mg/l, Daphnia magna
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Mobility

Assessment transport between environmental compartments:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: saflufenacil (ISO); N´-{2-chloro-4fluoro-5-[1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)pyrimedin-1-yl]benzoyl}-N-isopropyl-N-methylsulfamide
Assessment transport between environmental compartments:
Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.

Persistence and degradability

Assessment biodegradation and elimination (H2O):
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: saflufenacil (ISO); N´-{2-chloro-4fluoro-5-[1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)pyrimedin-1-yl]benzoyl}-N-isopropyl-N-methylsulfamide
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Bioaccumulation potential

Assessment bioaccumulation potential:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: saflufenacil (ISO); N´-{2-chloro-4fluoro-5-[1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)pyrimedin-1-yl]benzoyl}-N-isopropyl-N-methylsulfamide
Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

13. Disposal Considerations

Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Domestic transport:

Packing group:	III
ID number:	UN 3077
Transport hazard class(es):	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains SAFLUFENACIL)

Sea transport
IMDG

Packing group:	III
ID number:	UN 3077
Transport hazard class(es):	9, EHSM
Marine pollutant:	YES
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains SAFLUFENACIL)

Air transport
IATA/ICAO

Packing group:	III
ID number:	UN 3077
Transport hazard class(es):	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains SAFLUFENACIL)

Further information
Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 kg or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2:10.2.7; IATA: A197; TDS: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the

Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

15. Regulatory Information

Hazard determining component(s) for labelling: saflufenacil (ISO); N´-{2-chloro-4fluoro-5-[1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)pyrimedin-1-yl]benzoyl}-N-isopropyl-N-methylsulfamide

Other regulations

To avoid risks to man and the environment, comply with the instructions for use.

16. Other Information

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.