

Safety Data Sheet

INTEGRITY.

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Version: 3.1

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1. Product and Company Identification

Company

BASF Canada Inc.
100 Milverton Drive
Mississauga, ON L5R 4H1, CANADA

24 Hour Emergency Response Information

CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE: (800) 454-COPE (2673)

Molecular formula:	C17 H17 Cl F4 N4 O5 S + C12 H18 Cl N O2 S
Chemical family:	herbicide
PCP # 29371	
Synonyms:	saflufenacil + dimethenamid -P

2. Hazards Identification

Emergency overview

WARNING:
Skin Irritant
Eye irritant.
Potential skin sensitizer.
Contains the allergen sulfite(s).
KEEP OUT OF REACH OF CHILDREN.
HARMFUL IF SWALLOWED.
Do not get in eyes, on skin, or on clothing.
Do not breathe gas/vapour/fume/spray.

State of matter: liquid
Colour: light brown, clear
Odour: aromatic

Potential health effects

Acute toxicity:

Slightly toxic after single ingestion. Relatively nontoxic after short-term skin contact. Relatively nontoxic after short-term inhalation.

Irritation / corrosion:

Causes substantial but temporary eye injury. May cause slight irritation to the skin.

Sensitization:

Sensitization after skin contact possible.

Chronic toxicity:

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

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

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

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

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

Signs and symptoms of overexposure:

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Vomiting may cause aspiration pneumonia due to the ingredients. Because of the increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent, vomiting should be induced only under professional supervision.

Potential environmental effects

Aquatic toxicity:

Acutely toxic for aquatic organisms.

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Terrestrial toxicity:

With high probability not acutely harmful to terrestrial organisms.

Degradation / environmental fate:

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

3. Composition / Information on Ingredients

Not WHMIS controlled.

4. First-Aid Measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. If not breathing, give artificial respiration.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

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If swallowed:

Do not induce vomiting unless told to by a poison control center or doctor. Do not give solids or liquids. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Note to physician

Antidote: No known specific antidote.
Treatment: Treat symptomatically.

5. Fire-Fighting Measures

Flash point: 112.8 °C
Autoignition: approx. 491 °C
Lower explosion limit:

Information applies to the solvent.
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.

Flammability: not highly flammable

Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, Sulphur dioxide, Hydrogen chloride, hydrogen fluoride, halogenated hydrocarbons, Hydrocarbons,
If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

6. Accidental release measures

Personal precautions:

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Cleanup:

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

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7. Handling and Storage

Handling

General advice:

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product. Ensure adequate ventilation. Keep away from sources of ignition - No smoking. Keep container tightly sealed. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

Vapours may form ignitable mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

General advice:

Keep away from heat. Protect against moisture. Protect from direct sunlight.

Storage incompatibility:

General advice: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

8. Exposure Controls and Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

naphthalene	OSHA PEL	PEL 10 ppm 50 mg/m ³ ;
	ACGIH TLV	TWA value 10 ppm ; STEL value 15 ppm ; Skin Designation ;
		The substance can be absorbed through the skin.

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards., butyl rubber (butyl) – 16 mm coating thickness, laminated plastic (Silver Shield), nitrile rubber (Buna N), Do not use neoprene gloves., Dispose of contaminated gloves after eight hours of use.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

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Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	aromatic	
Odour threshold:	No data available.	
Colour:	light brown, clear	
pH value:	approx. 4 - 5	(1 %(m), 25 °C)
Freezing point:	approx. -20 °C	(1,013.3 hPa) Information applies to the solvent.
Boiling range:	approx. 232 - 278 °C	Information applies to the solvent.
Vapour pressure:	approx. 0.05 hPa	(20 °C) Information applies to the solvent.
Density:	approx. 1.092 g/cm ³	(20 °C)
Vapour density:		not applicable
<i>Information on: saflufenacil</i>		
Partitioning coefficient n-octanol/water (log Pow):	2.6	(20 °C)

Viscosity, dynamic:	19.56 mPa.s	(40 °C)
Solubility in water:		emulsifiable, insoluble
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Substances to avoid:

Nitric Acid, Sulfuric acid, strong oxidizing agents

Hazardous reactions:

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

Oxidizing properties:

Not an oxidizer.

not fire-propagating

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11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50
Species: rat
Value: > 2,000 mg/kg (OECD Guideline 423)

Inhalation:

Type of value: LC50
Species: rat (male/female)
Value: > 5.77 mg/l (OECD Guideline 403)
An aerosol was tested.

Dermal:

Type of value: LD50
Species: rat
Value: > 5,000 mg/kg (OECD Guideline 402)
No mortality was observed.

Irritation / corrosion

Skin:

Species: rabbit
Result: Slightly irritating.
May cause moderate irritation to the skin.

Eye:

Species: rabbit
Result: Moderately to severely irritating.
Causes substantial but temporary eye injury.

Sensitization:

modified Buehler test
Species: guinea pig
Result: Caused skin sensitization in animal studies.

Repeated dose toxicity

Information on: (S)-dimethenamid
Assessment of repeated dose toxicity:
Adaptive effects were observed after repeated exposure in animal studies.

Genetic toxicity

Information on: Dimethenamid-P
Results from a number of mutagenicity studies with microorganisms and mammalian cell culture are available.
Taking into account all of the information, there is no indication that the substance is mutagenic.

Information on: Saflufenacil
Results from a number of genotoxicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is genotoxic.

Carcinogenicity

Information on: Dimethenamid-P
In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.
Information on: Saflufenacil
Not carcinogenic.

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Information on: solvent naphtha

Long-term exposure to highly irritating concentrations resulted in skin tumors in animals. A carcinogenic effect in humans can be excluded after brief skin contact. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Reproductive toxicity

Information on: Dimethenamid-P

The results of animal studies gave no indication of a fertility impairing effect.

Information on: Saflufenacil

The results of animal studies gave no indication of a fertility impairing effect.

Development:

Information on: Dimethenamid-P

Causes developmental effects in animals at high, maternally toxic doses.

Information on: Saflufenacil

Indications of possible developmental toxicity/teratogenicity were seen in animal studies.

Other Information:

Misuse can be harmful to health.

12. Ecological Information

Fish

Acute:

Oncorhynchus mykiss/LC50 (96 h): 18 mg/l

Aquatic invertebrates

Acute:

Daphnia magna/EC50 (48 h): 15 mg/l

Aquatic plants

Toxicity to aquatic plants:

green algae/EC50 (72 h): 0.014 mg/l

Not readily biodegradable (by OECD criteria).

Environmental mobility:

Information on: S-dimethenamid

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.

Information on: saflufenacil

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.

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Other adverse effects:

Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Dispose of in a licensed facility. Observe all local regulations.

Container disposal:

Empty contaminated containers/packaging must be handled according to applicable regulations for the hazardous properties of the contaminating material. Consult the product label for additional details.

14. Transport Information

Land transport

TDG

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Hazard class:	9
Packing group:	III
ID number:	UN 3082
Hazard label:	9, EHSM
Marine pollutant:	YES
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DIMETHENAMID-P, SOLVENT NAPHTHA)

Air transport

IATA/ICAO

Hazard class:	9
Packing group:	III
ID number:	UN 3082
Hazard label:	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains DIMETHENAMID-P, SOLVENT NAPHTHA)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA released; restriction on quantity / not listed

Crop Protection DSL, CA released / listed

WHMIS does not apply to this product.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

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16. Other Information

Recommended use: herbicide

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

SDS Prepared by:

BASF NA Product Regulations

BASF HOTLINE (800) 454 – COPE (2673)

SDS Prepared on: 2014/03/11

END OF DATA SHEET