



The Chemical Company

Safety Data Sheet

KUMULUS DF

Revision date : 2012/02/22
Version: 2.0

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(30275589/SDS CPA_CA/EN)

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)

Chemical family:	crop protection product, fungicide, water dispersible granules
PCP # 18836	
Synonyms:	Sulphur 80%

2. Hazards Identification

Emergency overview

KEEP OUT OF REACH OF CHILDREN.
Avoid inhalation of dusts/mists/vapours.
Avoid contact with the skin, eyes and clothing.

State of matter: solid
Colour: grey-brown
Odour: faint specific odour, sulfur-like

Potential health effects

Acute toxicity:
No known acute effects.

Irritation / corrosion:
Not irritating to the eyes. Not irritating to the skin.

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

Signs and symptoms of overexposure:
No significant reaction of the human body to the product known.

Potential environmental effects

Aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic invertebrates. There is a high probability that the product is not acutely harmful to aquatic plants. There is a high probability that the product is not acutely harmful to fish.
There is a high probability that the product is not acutely harmful to aquatic organisms.

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Terrestrial toxicity:

With high probability not acutely harmful to terrestrial organisms.

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. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. 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:

Keep patient calm, remove to fresh air. Assist in breathing if necessary. Consult a physician.

If on skin:

Wash affected areas thoroughly with soap and water. Remove contaminated clothing. If irritation develops, seek medical attention.

If in eyes:

Hold eyelids open to facilitate rinsing. Flush with copious amounts of water for at least 15 minutes. If symptoms persist, seek medical advice.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Note to physician

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

5. Fire-Fighting Measures

Flash point:	not applicable
Self-ignition temperature:	246 °C (Directive 92/69/EEC, A.16)

Suitable extinguishing media:

dry powder, foam, water spray

Unsuitable extinguishing media for safety reasons:

carbon dioxide

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, sulfur oxides
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.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

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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:

Avoid raising dust. Sweep/shovel up. 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.

7. Handling and Storage

Handling

General advice:

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:

Avoid dust formation. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Storage

General advice:

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

Storage incompatibility:

General advice: Segregate from foods and animal feeds.

8. Exposure Controls and Personal Protection

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

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 a NIOSH-certified (or equivalent) organic vapour/particulate respirator as needed.

Hand protection:

Chemical resistant protective gloves

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Eye protection:

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

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. Wash soiled clothing immediately.

9. Physical and Chemical Properties

Form:	low dusting fine granules	
Odour:	faint specific odour, sulfur-like	
Odour threshold:	No data available.	
Colour:	grey-brown	
pH value:	approx. 7 - 9	(1 %(m), 20 °C) (pH Meter)
Melting point:	approx. 112 - 116 °C	
Boiling point:		The product has not been tested.
Vapour pressure:		The product has not been tested.
Density:	approx. 1.88 g/cm3	(20 °C)
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Solubility in water:		dispersible

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures. Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

Substances to avoid:

strong bases, strong acids, strong oxidizing agents

Hazardous reactions:

No hazardous reactions if stored and handled as prescribed/indicated.

Decomposition products:

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

Thermal decomposition:

190 °C

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, Sulphur dioxide, Hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.

Oxidizing properties:

not fire-propagating

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11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50
Species: rat (male/female)
Value: > 2,200 mg/kg (OECD Guideline 401)

Inhalation:

Type of value: LC50
Species: rat (male/female)
Value: > 5.4 mg/l (OECD Guideline 403)
Exposure time: 4 h

Dermal:

Type of value: LD50
Species: rat (male/female)
Value: > 2,000 mg/kg (OECD Guideline 402)

Irritation / corrosion

Skin:

Species: rabbit
Result: non-irritant
Method: OECD Guideline 404

Eye:

Species: rabbit
Result: non-irritant
Method: OECD Guideline 405

Sensitization:

Guinea pig maximization test
Species: guinea pig
Result: Skin sensitizing effects were not observed in animal studies.
Method: OECD Guideline 406

Genetic toxicity

Information on: sulfur
The substance was not mutagenic in microorganisms.

Carcinogenicity

Information on: sulfur
Not carcinogenic.

Reproductive toxicity

Information on: sulfur
No reproductive toxic effects reported.

Development:

Information on: sulfur
No teratogenic effects reported.

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12. Ecological Information

Fish

Acute:

Oncorhynchus mykiss/LC50 (96 h): > 100 mg/l

Aquatic invertebrates

Acute:

OECD Guideline 202, part 1 static

Daphnia magna/EC50 (48 h): > 1,000 mg/l

Aquatic plants

Toxicity to aquatic plants:

OECD Guideline 201 green algae/EC50 (72 h): 290 mg/l

Microorganisms

Toxicity to microorganisms:

static

bacterium/EC50 (18 h): > 2,000 mg/l

13. Disposal considerations

Waste disposal of substance:

See product label for disposal and recycling instructions.

Container disposal:

Contaminated packaging should be emptied as far as possible and disposed of in accordance with official regulations after being thoroughly cleaned.

14. Transport Information

Land transport

TDG

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

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Registration status:

Crop Protection DSL, CA released / exempt

Chemical 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.

16. Other Information

Recommended use: fungicide

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.

MSDS Prepared by:

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MSDS Prepared on: 2012/02/22

END OF DATA SHEET

