

# Safety data sheet

BASF Safety Data Sheet  
Date / Revised: 16.08.2022  
Product: **KUMULUS® DF**

Ref. ID no. 30275589/SDS\_CPA\_NZ/EN. Version: 4.0

## 1. Identification of the substance/mixture and of the company/undertaking

### Product identifier

**KUMULUS® DF**

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

Relevant identified uses: crop protection product, fungicide.

### Details of the supplier of the safety data sheet

Company:  
BASF New Zealand Ltd.  
5E City Works Depot  
77 Cook Street  
Auckland Central, Auckland 1010  
NEW ZEALAND  
Telephone: +64 9 255-4300

### Emergency telephone number

National Poisons Centre: 0800 764 766  
BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)  
BASF Emergency Advice Number: +61 3 8855 6666 (If calling from outside New Zealand)

## 2. Hazards Identification

### Classification of the substance or mixture

Skin Irritation Cat. 2  
Designed for biocidal action

### Label elements

Pictogram:



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Signal Word:

WARNING

Hazard Statements:

H315 Causes skin irritation.

Precautionary statements (Prevention):

P102 Keep out of reach of children.

P103 Read label before use.

P264 Wash exposed body parts thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary statements (Response):

P302+P352 IF ON SKIN: wash with plenty of soap and water.

P332+P313 If skin irritation occurs: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before re-use.

### Other hazards

According to UN GHS criteria

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.

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## 3. Composition/Information on Ingredients

### Substances

Not applicable

### Mixtures

Chemical nature

Crop protection product, fungicide, water dispersible granules.

Hazardous ingredients

sulphur

Content (W/W): 80 %

CAS Number: 7704-34-9

Skin Corr./Irrit. 2

H315

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## 4. First-Aid Measures

### Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

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:

Rinse mouth and then drink 200-300 mL of water.

Note to physician:

Symptoms: (Further) symptoms and / or effects are not known so far, 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.

Treatment: Symptomatic treatment (decontamination, vital functions).

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## 5. Fire-Fighting Measures

Suitable extinguishing media:

Water spray, foam, dry powder.

Unsuitable extinguishing media for safety reasons:

Carbon dioxide

### Special hazards arising from the substance or mixture

Carbon monoxide, carbon dioxide, sulphur oxides.

The substances/groups of substances mentioned can be released in case of fire.

### Advice for fire-fighters

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.

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## 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

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

### Environmental precautions

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

### Methods and material for containment and cleaning 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 labelled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

### Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

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## 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. Remove contaminated clothing and protective equipment before entering eating areas.

Protection against fire and explosion:

Avoid dust formation. 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.

### 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: 60 Months

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

### Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

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## 8. Exposure Controls/Personal Protection

### Control parameters

Components with occupational exposure limits

No occupational exposure limits known.

### Exposure controls

Personal protective equipment

Respiratory protection:

Respiratory protection not required.

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. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

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## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Form:	solid
Colour:	grey brown to brown
Odour:	faint specific odour, sulphur-like
Odour threshold:	Not determined due to potential health hazard by inhalation.
pH value:	approx. 7 – 9 (CIPAC standard water D, 1 %(m), 20 °C) (pH Meter)
Melting point:	approx. 112 - 116 °C
Boiling point:	The product is a non-volatile solid.
Flash point:	not applicable
Evaporation rate:	not applicable
Flammability:	not flammable
Lower explosion limit:	approx. 25 g/m <sup>3</sup> (VDI 2263)
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.
Vapour pressure:	The product has not been tested.
Density:	approx. 1.88 g/cm <sup>3</sup> (20 °C)
Bulk density:	870 - 953 kg/m <sup>3</sup>
Relative vapour density (air):	not applicable
Solubility in water:	dispersible
Partitioning coefficient n-octanol/water (log Kow):	not applicable
Self-ignition:	Temperature: 246 °C (Method: Directive 92/69/EEC, A.16)
Thermal decomposition:	165 °C, 50 kJ/kg (DSC (OECD 113)) (onset temperature) 265 °C, 30 kJ/kg (DSC (OECD 113)) (onset temperature) Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.
Viscosity, dynamic:	not applicable, the product is a solid
Explosion hazard:	not explosive
Fire promoting properties:	not fire-propagating

### Other information

Self-heating ability:	Not tested on account of the low melting-point.
Bulk density:	870 - 953 kg/m <sup>3</sup>

## 10. Stability and Reactivity

### Reactivity

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

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

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

### Conditions to avoid

See SDS section 7 - Handling and storage.

### Incompatible materials

Substances to avoid:

Strong acids, strong bases, strong oxidizing agents.

### **Hazardous decomposition products**

Hazardous decomposition products:

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

## **11. Toxicological Information**

### **Information on toxicological effects**

#### Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

Experimental/calculated data:

LD50 rat (oral): > 2,200 mg/kg (OECD Guideline 401)

No mortality was observed.

LC50 rat (by inhalation): > 5.4 mg/l 4 h (OECD Guideline 403)

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)

No mortality was observed.

#### **Assessment of acute toxicity**

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

#### **Symptoms**

(Further) symptoms and / or effects are not known so far 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.

#### Irritation

Assessment of irritating effects:

Not irritating to the eyes. Not irritating to the skin.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

Serious eye damage/irritation rabbit: non-irritant (OECD Guideline 405)

#### Respiratory/Skin sensitization

Assessment of sensitization:

There is no evidence of a skin-sensitizing potential.

Experimental/calculated data:

Guinea pig maximization test guinea pig: Skin sensitizing effects were not observed in animal studies. (OECD Guideline 406).

#### 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. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

### 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 organ toxicity was observed after repeated administration to animals.

### Aspiration hazard

No aspiration hazard expected.

### Other relevant toxicity information

Misuse can be harmful to health.

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## 12. Ecological Information

### Toxicity

#### Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

#### Toxicity to fish:

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

#### Aquatic invertebrates:

EC50 (48 h) > 1.000 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

#### Aquatic plants:

EC50 (72 h) 290 mg/l, *Ankistrodesmus bibrainus* (OECD Guideline 201)

Microorganisms/Effect on activated sludge:  
EC50 (18 h) > 2.000 mg/l, *Pseudomonas putida* (static)

### **Mobility**

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

*Information on: sulfur*

*Assessment transport between environmental compartments:  
Adsorption in soil: Study scientifically not justified.*

### **Persistence and degradability**

Assessment biodegradation and elimination (H<sub>2</sub>O):  
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: sulphur

Assessment biodegradation and elimination (H<sub>2</sub>O):  
Not applicable for inorganic substances.

### **Bioaccumulative potential**

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

*Information on: sulphur*

*Bioaccumulation potential:  
Accumulation in organisms is not to be expected. The product will not be readily bioavailable due to its consistency and insolubility in water.*

### **Results of PBT and vPvB assessment**

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

### **Other adverse effects**

The product does not contain substances that are listed in the Montreal Protocol on substances that deplete the ozone layer.

### **Additional information**

Other ecotoxicological advice:

Do not discharge product into the environment without control.

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## **13. Disposal Considerations**

Product:

Dispose of this product only by using according to the label or at an approved landfill or at an approved facility. DO NOT burn product. DO NOT contaminate water with product or used container.



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Contaminated packaging:

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

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## 14. Transport Information

Commercial transport:

Not classified as Dangerous Goods for Land/rail (ADR/RID), sea (IMDG/GGVSee) and air transport (ICAO/IATA):

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Marine pollutant:	Not applicable

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## 15. Regulatory Information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

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

### NZ Regulations

Approved pursuant to the HSNO Act 1996, Code HSR000741.  
See [www.epa.govt.nz](http://www.epa.govt.nz) for approval conditions.

Registered pursuant to the ACVM Act 1997, Nos. P003493.  
See [www.foodsafety.govt.nz/acvm](http://www.foodsafety.govt.nz/acvm) for registration conditions.

Qualification requirements:	not required
Certified handler:	not required
Tracking:	not required
Record keeping:	not required

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## 16. Other Information

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.

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