

Safety data sheet

Page: 1/9

BASF Safety data sheet
Date / Revised: 11.12.2013
Product: **SULFOSTAR® DF FUNGICIDE**

Version: 3.3

(30347191/SDS_CPA_AU/EN)

Date of print 11.12.2013

1. Substance/preparation and company identification

SULFOSTAR® DF FUNGICIDE

Use: crop protection product, fungicide

Manufacturer/supplier:

BASF Australia Limited (ABN 62 008 437 867)
Level 12, 28 Freshwater Place Southbank
Victoria 3006, AUSTRALIA
Telephone: +61 3 8855-6600
Telefax number: +61 3 8855-6511

Emergency information:

BASF Emergency Advice Number: 1800 803 440 (24h) [within Australia]
BASF Emergency Advice Number: + 61 3 8855 6666 [outside Australia]

2. Hazard identification

NON-HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS

No specific dangers known, if the regulations/notes for storage and handling are considered.

Keep out of the reach of children.

Keep away from food, drink and animal feeding stuffs.

When using do not eat, drink or smoke.

3. Composition/information on ingredients

Chemical nature

crop protection product, fungicide, water dispersible granules

Hazardous ingredients

sulfur

Content (W/W): 80 %
CAS Number: 7704-34-9
Hazard symbol(s): Xi
R-phrases: 38

The wording of the hazard symbols and R-phrases is specified in section 16 if dangerous ingredients are mentioned.

4. First-Aid Measures

General advice:

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 plenty of water.

Note to physician:

Symptoms: No significant reaction of the human body to the product known.

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Suitable extinguishing media:

dry powder, foam, water spray

Unsuitable extinguishing media for safety reasons:

carbon dioxide

Specific hazards:

carbon monoxide, carbon dioxide, sulfur oxides

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

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:

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

8. Exposure controls and personal protection

Components with occupational exposure limits

no exposure standard allocated

Personal protective equipment

Respiratory protection:
 Respiratory protection not required.

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

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:	low dusting fine granules	
Colour:	grey-brown	
Odour:	faint specific odour, sulfur-like	
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	
Flammability:	not flammable	
Lower explosion limit:	approx. 25 g/m ³	(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.	
Self ignition:	Temperature: 246 °C	(Method: Directive 92/69/EEC, A.16)
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	

BASF Safety data sheet
Date / Revised: 11.12.2013
Product: **SULFOSTAR® DF FUNGICIDE**

Version: 3.3

(30347191/SDS_CPA_AU/EN)

Date of print 11.12.2013

Vapour pressure: The product has not been tested.

Density: approx. 1.88 g/cm³
(20 °C)

Relative vapour density (air):
not determined

Solubility in water: dispersible
Partitioning coefficient n-octanol/water (log Pow):
not applicable

Viscosity, dynamic:
not applicable

Other Information:
If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

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

Thermal decomposition: 165 °C, 50 kJ/kg (DSC (OECD 113))

Thermal decomposition: 265 °C, 30 kJ/kg (DSC (OECD 113))

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

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

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

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.

Irritation

Assessment of irritating effects:

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

Primary skin irritation rabbit: non-irritant (OECD Guideline 404)

Primary irritations of the mucous membrane rabbit: non-irritant (OECD Guideline 405)

Sensitization

Assessment of sensitization:

There is no evidence of a skin-sensitizing potential.

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

Repeated dose toxicity

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 organotoxicity was observed after repeated administration to animals.

Genetic toxicity

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.

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity

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 bibraianus* (OECD Guideline 201)

Microorganisms/Effect on activated sludge:

EC50 (18 h) > 2,000 mg/l, *Pseudomonas putida* (static)

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: sulfur

Assessment transport between environmental compartments:

Study scientifically not justified.

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: sulfur

Assessment biodegradation and elimination (H₂O):

Inorganic product which cannot be eliminated from water by biological purification processes.

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: sulfur

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.

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:

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

Poisons Schedule: Not scheduled

Regulations of the European union (Labelling)

EEC Directives:

S-phrase(s)

S2	Keep out of the reach of children.
S13	Keep away from food, drink and animal feeding stuffs.
S20/21	When using do not eat, drink or smoke.

The product does not require a hazard warning label in accordance with EC Directives.

Other regulations

BASF Safety data sheet
Date / Revised: 11.12.2013
Product: **SULFOSTAR® DF FUNGICIDE**

Version: 3.3

(30347191/SDS_CPA_AU/EN)

Date of print 11.12.2013

For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)

Registration status:

AICS, AU released / listed
APVMA 54228

16. Other Information

Full text of hazard symbols and R-phrases if mentioned as hazardous components in section 3:

Xi Irritant.
38 Irritating to skin.

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. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.