

Safety data sheet

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BASF Safety data sheet

Date / Revised: 10.02.2017

Product: **VIVANDO FUNGICIDE**

Version: 5.0

(30504529/SDS_CPA_AU/EN)

Date of print 11.02.2017

1. Substance/preparation and manufacturer/supplier identification

VIVANDO 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

Classification of the substance and mixture:

Hazardous to the aquatic environment - chronic: Cat. 2

Label elements and precautionary statement:

Pictogram:



Hazard Statement:

Toxic to aquatic life with long lasting effects.

Precautionary Statements (Response):

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Collect spillage.

Precautionary Statements (Disposal):

Dispose of contents/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

fungicide, suspension concentrate (SC)

Hazardous ingredients

Metrafenone

Content (W/W): 42 %
 CAS Number: 220899-03-6

Aquatic Acute: Cat. 1
 Aquatic Chronic: Cat. 2

1,2-benzisothiazol-3(2H)-one

Content (W/W): < 0.05 %
 CAS Number: 2634-33-5

Acute Tox.: Cat. 4 (oral)
 Skin Corr./Irrit.: Cat. 2
 Eye Dam./Irrit.: Cat. 1
 Skin Sens.: Cat. 1
 Aquatic Acute: Cat. 1
 M-factor acute: 10

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: 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.

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Suitable extinguishing media:
water spray, carbon dioxide, foam, dry powder

Specific hazards:
carbon monoxide, carbon dioxide, halogenated hydrocarbons, Dibenzofuran, nitrogen oxides, Bromine compounds, hydrocarbons, brominated dibenzodioxins
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:
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. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

6. Accidental Release Measures

Personal precautions:
Do not breathe vapour/spray. 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: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).
For large amounts: Dike spillage. Pump off product.
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:
No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Storage

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

8. Exposure controls and personal protection

Components with occupational exposure limits

No occupational exposure limits known.

Personal protective equipment

Respiratory protection:
Respiratory protection not required.

Hand protection:
PVC-coated gloves

Eye protection:
Eye protection not required.

Body protection:
Standard work clothes and shoes.

General safety and hygiene measures:
Avoid contact with the skin, eyes and clothing. In order to prevent contamination while handling, closed working clothes and working gloves should be used. Wash contaminated clothing before reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Before eating, drinking, or smoking, wash face and hands with soap and water.

9. Physical and Chemical Properties

Form: suspension
Colour: beige
Odour: aliphatic
Odour threshold: Not determined due to potential health hazard by inhalation.

pH value: approx. 7 - 9
(water, 20 °C)
(measured with the undiluted substance)

Melting point: approx. 0 °C
Information applies to the solvent.

Boiling point: approx. 100 °C
Information applies to the solvent.

Flash point: Non-flammable. (Directive 92/69/EEC, A.9)

Evaporation rate:	not applicable	
Flammability (solid/gas):	not highly flammable	(calculated)
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.	
Ignition temperature:	379 °C	(Directive 92/69/EEC, A.15)
Thermal decomposition:	205 °C , 30 kJ/kg	(DSC (OECD 113))
	290 °C , 750 kJ/kg	(DSC (OECD 113))
	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.	
Explosion hazard:	not explosive	(Directive 92/69/EEC, A.14)
Fire promoting properties:	not fire-propagating	(Directive 2004/73/EC, A.21)
Vapour pressure:	approx. 23 hPa (20 °C) Information applies to the solvent.	
Density:	approx. 1.19 g/cm ³ (20 °C)	
Relative vapour density (air):	not applicable	
Solubility in water:	dispersible	
Partitioning coefficient n-octanol/water (log Pow):	not applicable	
Viscosity, dynamic:	approx. 129 mPa.s (20 °C)	

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:	205 °C, 30 kJ/kg (DSC (OECD 113))
Thermal decomposition:	290 °C, 750 kJ/kg (DSC (OECD 113)) Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

Substances to avoid:
strong acids, strong bases, 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 by inhalation. Virtually nontoxic after a single skin contact.

Experimental/calculated data:
LD50 rat (oral): > 5,000 mg/kg (OECD Guideline 401)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

LC50 rat (by inhalation): > 3.7 mg/l 4 h (OECD Guideline 403)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. No mortality was observed. Highest concentration capable of testing. An aerosol was tested.

LD50 rat (dermal): > 5,000 mg/kg (OECD Guideline 402)

Irritation

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

Experimental/calculated data:
Skin corrosion/irritation rabbit: (OECD Guideline 404)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Serious eye damage/irritation rabbit: (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: (OECD Guideline 406)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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.

Information on: Metrafenone

Assessment of carcinogenicity:

When given in high doses, the substance was carcinogenic in animal studies. Based on its mechanism of action, a carcinogenic potential is not expected after exposure to low doses.

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.

The product contains: 1,2-benzisothiazol-3(2H)-one
May produce an allergic reaction.

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 organotoxicity was observed after repeated administration to animals.

Aspiration hazard

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

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

Toxic to aquatic life with long lasting effects.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Toxicity to fish:

LC50 (96 h) > 104 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 92/69/EEC, C.1, static)

Aquatic invertebrates:

LC50 (48 h) > 1.98 mg/l, *Daphnia magna* (Directive 92/69/EEC, C.2, static)

No effects at the highest test concentration.

Aquatic plants:

EC50 (72 h) > 2.25 mg/l, *Selenastrum capricornutum* (OECD Guideline 201)

No effects at the highest test concentration.

No observed effect concentration (72 h) 0.294 mg/l, *Pseudokirchneriella subcapitata* (OECD Guideline 201)

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: Metrafenone

Assessment transport between environmental compartments:

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

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.

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Information on: Metrafenone
Assessment biodegradation and elimination (H₂O):
Not readily biodegradable (by OECD criteria).

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: Metrafenone
Bioaccumulation potential:
Bioconcentration factor: 140 - 180 (42 d), *Lepomis macrochirus* (OECD Guideline 305 E)

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:

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 METRAFENONE)

Further information

Hazchem Code:3Z
IERG Number:47

Sea transport

IMDG

Hazard class:	9
Packing group:	III
ID number:	UN 3082

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Hazard label: 9, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (contains METRAFENONE)

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 METRAFENONE)

Further information

Environmentally Hazardous Substances meeting the description of UN 3077 or UN 3082 are not subjected to the Australian Dangerous Goods Code when transported by road or rail in packagings not exceeding 500 kg(L) or IBCs.

15. Regulatory Information

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Schedule 5

Registration status:

AICS, AU released w/o restriction f. BASF / not listed
APVMA Approval 63487

16. Other Information

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

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