

Safety Data Sheet

BASF Safety Data Sheet
Date / Revised: 19.01.2021
Product: VIVANDO®

Page 1 of 10

(30211625/SDS_CPA_NZ/EN, Version 3.0)

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

1.1. Product identifier

VIVANDO®

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: crop protection product, fungicide

1.3. Details of the supplier of the safety data sheet

Company:

BASF New Zealand Ltd.
Regus Auckland Airport
Level 1, Quad 7, 6 Leonard Isitt Drive
PO Box 407 Shortland Street, Auckland 2022
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

1.4. 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)

SECTION 2. Hazards Identification

2.1. Classification of the substance or mixture

Hazard classification:
6.7B, 9.1D

2.2. Label elements

Pictogram:



Signal word: WARNING

Hazard statements:

Suspected of causing cancer. Toxic to aquatic life with long lasting effects.

May produce an allergic reaction. Contains: 1,2-BENZISOTHIAZOL-3(2H)-ONE

Precautionary Statements (Prevention):

Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Precautionary Statements (Response):

IF exposed or concerned: Get medical advice/ attention. Collect spillage.

2.3. Other hazards

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.

SECTION 3. Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

Biocide, fungicide, suspension concentrate (SC).

Hazardous ingredients

Metrafenone Content (W/W): 42 % CAS Number: 220899-03-6	Aquatic Acute: Cat. 1 Aquatic Chronic: Cat. 2
sodium alkyl-naphthalene sulphonate, formaldehyde condensate Content (W/W): < 5 % CAS Number: 68425-94-5	Eye Dam./Irrit.: Cat. 2A Aquatic Acute: Cat. 3
1,2-benzisothiazol-3(2H)-one Content (W/W): < 0.05 % CAS Number: 2634-33-5 EC-Number: 220-120-9 INDEX-Number: 613-088-00-6	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: 1 M-factor chronic: 1
Propane-1,2-diol Content (W/W): < 5 % CAS Number: 57-55-6 EC-Number: 200-338-0 REACH registration number: 01-2119456809-23	

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

SECTION 4. First-Aid Measures

4.1. 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:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

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.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media:

Water spray, dry powder, foam, carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon monoxide, carbon dioxide, hydrogen bromide, nitrogen oxides, sulfur oxides, halogenated compounds. The substances/groups of substances mentioned can be released in case of fire.

5.3 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.

SECTION 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Do not breathe vapour/spray.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr) and place in covered containers that can be labelled and sealed for proper disposal. (See "Disposal".) Clean the spill area and contaminated objects thoroughly with water and detergent. Contain and absorb this rinsate with inert absorbents and place into the same covered container as the spilled material. Spills to the soil can be shovelled directly into covered containers for disposal. Dispose of absorbed material in accordance with local regulations.

For large amounts: Dike spillage. Pump off product.

6.4 Reference to other sections

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

SECTION 7. Handling and Storage

CERTIFIED HANDLER:

Not required.

QUALIFICATION REQUIREMENTS:

Not required.

TRACKING:

Not required.

RECORD KEEPING:

Not required.

7.1. Precautions for safe 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.

7.2. Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feedstuff.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

Storage stability:

Storage duration: 60 Months

Protect from temperatures below: 0 °C

The product can crystallize below the limit temperature.

Protect from temperatures above: 35 °C

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

AGGREGATE STORAGE VOLUME THRESHOLDS:

When stored with substances of the same hazard the aggregate quantity must be considered. For full details refer to the current standard NZS8409 Management of Agrichemicals or the HSNO Regulations.

Location Certificate*:	Hazardous Atmosphere Zone*:	Fire Extinguishers:	Signage [Hazard Class & Emergency Action]:	Emergency Information:	Emergency Response Plan:	Secondary Containment:
NA	NA	NA	10,000 litres	1 litre	10,000 litres	10,000 litres

* Note: Farms \geq 4 ha are exempt but with controls.

DO NOT STORE OR LOAD WITH:

Class 1 Explosive

SEGREGATE FROM:

Food or food containers and animal feedstuff

Segregation: In store separate by at least 5 metres, on transport separate by at least 3 metres, in both cases horizontally. On vehicles a segregation device may be used: Check the Land Transport Rule Dangerous Goods, Rule 45001 for additional information. Sea transport may require additional segregation. Refer to NZS5433 Sea Segregation for details.

7.3. 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.

NOTE: Storage, application and record keeping must be as described in the current version of the New Zealand Standard for the Management of Agrichemicals NZS8409.

SECTION 8. Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

propane-1,2-diol, 57-55-6;

TWA value 10 mg/m³ (OEL (NZ)), Particulate

TWA value 474 mg/m³ ; 150 ppm (OEL (NZ)), Vapor and particulates

8.2. Exposure controls

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) 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.

SECTION 9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	liquid
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:	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)
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 Kow):	not applicable
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.
Viscosity, dynamic:	approx. 129 mPa.s (20 °C)
Explosion hazard:	not explosive (Directive 92/69/EEC, A.14)
Fire promoting properties:	not fire-propagating (Directive 2004/73/EC, A.21)

9.2. Other information

Other Information:

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

SECTION 10. Stability and Reactivity

10.1. Reactivity

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

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

See SDS section 7 - Handling and storage.

10.5. Incompatible materials

Substances to avoid:

Strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products:

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

SECTION 11. Toxicological Information

11.1. Information on toxicological effects

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 eyes. Not irritating to the skin.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (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: 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)

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.

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

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.

SECTION 12. Ecological Information

12.1. 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).

12.2. 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: Metrafenone

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

12.3. 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: Metrafenone

Bioaccumulation potential:

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

12.4. Mobility in soil

Assessment transport between environmental compartments:

Adsorption in soil: 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:

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

12.5. 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.

12.6. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.7. Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

SECTION 13. Disposal Considerations

To avoid disposal all attempts should be made to use this product completely, in accordance with its registered use. If this is not possible handle with care and dispose of in a safe manner. Follow all applicable community, regional and national regulations regarding waste management methods.

13.1. Waste treatment methods

Container:

Triple rinse empty container and add residue to the spray tank. Recycle through Agrecovery (0800 247 326, www.agrecovery.co.nz). Otherwise crush and bury in a suitable landfill. DO NOT REUSE empty container.

Product:

Dispose of this product only by using according to the label or at an approved landfill. DO NOT burn product. For information on disposal of unused, unwanted product, contact the local council.

DO NOT contaminate surface or ground water with chemical or empty container.

SECTION 14. Transport Information

Commercial transport:

Classified as Dangerous Goods for Land/rail (ADR/RID), sea (IMDG/GGVSee) and air transport (ICAO/IATA):

UN number	UN3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains METRAFENONE)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	Yes
Special precautions for user:	Tunnel code: E (EU Land Transport)
Marine pollutant:	Yes
HAZCHEM:	2[Z]

Further information

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2).

14.1. UN number

See corresponding entries for “UN number” for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for “Packing group” for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for “Special precautions for user” for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

SECTION 15. Regulatory Information

15.1 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 HSR100045.
 See www.epa.govt.nz for approval conditions.

Registered pursuant to the ACVM Act 1997, No. P7973.
 See www.foodsafety.govt.nz for registration conditions.

15.2 Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

SECTION 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. 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.