

# Safety Data Sheet

**BASF Safety Data Sheet**

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Date / Revised: 21.12.2007 Version: 2.1 (30443557/SDS\_CPA\_EU/EN)

Product: VIVANDO®

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## 1. Substance / preparation and company identification

### VIVANDO®

Company:

BASF New Zealand Limited  
3 Airpark Drive, Airport Oaks, Manukau,  
P.O. Box 407, Auckland 1140.  
Phone: + 64 9 255 4300  
Fax: + 64 9 255 4307  
E-mail address: reception.nz@basf.com

Emergency information:

**National Poisons Centre: 0800 764 766**

BASF Emergency Advice Number: 0800 944 955 (24 hour advice in an emergency only)

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## 2. Hazard identification

Hazard Classification:

6.7B, 9.1B

Priority Identifier:

WARNING. Keep out of reach of children

Secondary Identifiers:

6.7B Limited evidence of a carcinogenic effect from animal studies.

9.1B Toxic to aquatic life with long lasting effects. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites.

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## 3. Composition/information on ingredients

Chemical nature

Crop protection product, fungicide, suspension concentrate (SC)

Hazardous ingredients

Metrafenone

Content (W/W): 42.4 %

CAS Number: 220899-03-6

Sodium alkyl-naphthalene sulphonate, formaldehyde condensate

Content (W/W): >= 1.9 % - <= 2.1 %

Hazard symbol(s): Xi R-phrase(s): 36/38

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

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## 4. First-aid measures

### General advice:

Avoid contact with the skin, eyes and clothing. Remove contaminated clothing. If difficulties occur: Obtain medical attention. Show container, label and/or safety data sheet to physician.

### If inhaled:

Keep patient calm, remove to fresh air, and seek medical attention.

### On skin contact:

After contact with skin, wash immediately with plenty of water and soap. If irritation develops, seek medical attention.

### On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

### On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a Poison Control Centre or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

### Note to physician:

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

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## 5. Fire-fighting measures

### Suitable extinguishing media:

Water spray, carbon dioxide, foam, dry extinguishing media

### Specific hazards:

Carbon monoxide, hydrogen bromide, nitrogen 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.

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## 6. Accidental release measures

### Personal precautions:

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Remove contaminated clothes, undergarments and shoes immediately.

### Environmental precautions:

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

Methods for cleaning up or taking up:

For large amounts: Dike spillage. Pump off product.

For small amounts: Pick up with suitable absorbent material. (e.g. sand, sawdust, general-purpose binder, kieselguhr).

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. Incinerate or take to a special waste disposal site in accordance with local authority regulations.

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## 7. Handling and storage

### Handling

No special measures necessary if stored and handled correctly.

APPROVED HANDLER:

Not required.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

### Storage

Store in original container, tightly closed, and locked up in a dry, cool, well-ventilated place away from foods and animal feeds.

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

Protect from temperatures below: -5 °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	100 litres	1 litre	100 litres	100 litres

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

### DO NOT STORE OR LOAD WITH:

Class 1 Explosive

### SEGREGATE FROM:

Foodstuffs or Food Containers

**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.

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.

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## 8. Exposure controls and personal protection

### 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. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is recommended. Take off immediately all contaminated clothing. Store work clothing separately. Keep away from food, drink and animal feeding stuffs. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift.

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## 9. Physical and chemical properties

Form: liquid, suspension  
Colour: beige  
Odour: aliphatic  
pH value: 5.5 - 9  
(measured with the undiluted substance)  
Boiling point: Not applicable  
Flash point: Non-flammable. (DIN EN 22719; ISO 2719)  
Vapour pressure: Not applicable  
Density: approx. 1.18 g/cm<sup>3</sup> (20 °C)  
Solubility in water: dispersible

*Information on: Metrafenone*  
*Partitioning coefficient n-octanol/water (log Pow): 4.3*  
*(25 °C; pH value: 4.0)*

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Surface tension: 41.1 mN/m (20 °C)  
62.4 mN/m (20 °C; 0.013 %(V))  
Viscosity, dynamic: 90 - 130 mPa.s (20 °C, 100 1/s)

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## 10. Stability and reactivity

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

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.

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## 11. Toxicological information

### Acute toxicity

LD50 rat (oral): > 5,000 mg/kg

LC50 rat (by inhalation): > 3.7 mg/l 4 h

No mortality was observed.

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

### Irritation

Primary skin irritation rabbit: non-irritant

Primary irritations of the mucous membrane rabbit: non-irritant

### Sensitization

Guinea pig: Skin sensitizing effects were not observed in animal studies.

### Other relevant toxicity information

Misuse can be harmful to health.

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## 12. Ecological information

### Ecotoxicity

Toxicity to fish:

LC50 (96 h) > 104 mg/l, *Oncorhynchus mykiss*

Aquatic invertebrates:

LC50 (48 h) > 1.98 mg/l, *Daphnia magna*

Aquatic plants:

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

### Persistence and degradability

*Information on: Metrafenone*

*Elimination information:*

*Not readily biodegradable (by OECD criteria).*

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### Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

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### 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.

**Container:**

Triple rinse container and add residue to the spray tank. DO NOT REUSE. The rinsed container may be offered for recycling under the Agrecovery Rural recycling Programme.

**Product:**

Dispose of this product only by using according to the label or at an approved landfill. Do NOT burn product.

Do NOT contaminate surface water with chemical or empty container.

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### 14. Transport information

**Commercial transport:**

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

DG Class	9
Packaging Group	III
UN Number	3082
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains METRAFENONE 42%)
HAZCHEM:	2[Z]
Marine Pollutant:	Yes

**Public transport:**

Do NOT carry this product on a passenger service vehicle.

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### 15. Regulatory information

#### **Regulations of the European Union (Labelling) / National legislation/Regulations**

**EEC Directives:**

**Hazard symbol(s)**

N Dangerous for the environment.

**R-phrase(s)**

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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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.

S35 This material and its container must be disposed of in a safe way.

S57 Use appropriate container to avoid environmental contamination.

Hazard determinant component(s) for labelling: METRAFENONE

**Other regulations**

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)

**NZ Regulations**

Approved pursuant to the HSNO Act 1996, Code HSR100045.

See [www.ermanz.govt.nz](http://www.ermanz.govt.nz) for approval controls.

Registered pursuant to the ACVM Act 1997, No. P7973.

See [www.nzfsa.govt.nz/acvm](http://www.nzfsa.govt.nz/acvm) for registration conditions.

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**16. Other information**

Full text of hazard symbols and R-phrases if mentioned as hazardous components in chapter 2:

Xi Irritant.

36/38 Irritating to eyes and skin.

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

**DISCLAIMER:** The information provided in this safety data sheet is based on our current knowledge and experience and describes the product only in regard to safety requirements. The data does not describe the properties of the product (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 for determining the suitability of this information for their particular purposes, and to ensure any proprietary rights and existing laws and regulations are observed.