

# Safety data sheet

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BASF Safety data sheet  
Date / Revised: 24.12.2020  
Product: **COMET®**

Version: 2.0

(ID no. 30396273/SDS\_CPA\_NZ/EN)

## 1. Substance/preparation and manufacturer/supplier identification

### COMET®

Relevant identified uses: crop protection product, fungicide

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

Manufacturer/supplier:  
BASF New Zealand Ltd.  
5E City Works Depot  
77 Cook Street  
Auckland Central, Auckland 1010  
NEW ZEALAND  
Telephone: +64 9 255-4300  
E-mail address: reception-nz@basf.com

#### 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

Hazard Classification:  
6.1D, 6.3A, 6.4A, 6.9A, 9.1A, 9.3B



Signal word: DANGER

#### Hazard Statements:

Harmful if swallowed, inhaled, or absorbed through the skin.  
Causes skin and eye irritation.  
May cause liver damage through prolonged or repeated oral exposure at high doses.  
Very toxic to aquatic life with long lasting effects.  
Toxic to terrestrial vertebrates.

Precautionary Statements (Prevention):

Keep out of reach of children.

Wash hands and exposed skin thoroughly after handling.

Do not eat, drink, or smoke while using this product.

Do not breathe vapour, mist, or spray.

Wear cotton overalls buttoned to the neck and wrist, a washable hat, protective gloves, and goggles or a face shield.

Precautionary Statements (Response):

If medical advice is needed, have product container or label at hand.

IF SWALLOWED: Rinse mouth. Call a POISON CENTRE or doctor/physician if you feel unwell.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

IF ON SKIN: Take off contaminated clothing and wash skin with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing before re-use.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Collect spillage.

For the classifications not written out in full in this section the full text can be found in section 16.

**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.

**3. Composition/Information on Ingredients****Mixtures**Chemical nature

Crop protection product, fungicide, Emulsifiable concentrate (EC).

Hazardous ingredients (GHS)

pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-ylloxymethyl]phenyl}(N-methoxy)carbamate  
Content (W/W): 23.8 %  
CAS Number: 175013-18-0

Acute Tox.: Cat. 3 (Inhalation - mist)  
Skin Corr./Irrit.: Cat. 2  
STOT SE: Cat. 3 (irr. to respiratory syst.)  
Aquatic Acute: Cat. 1  
Aquatic Chronic: Cat. 1  
M-factor acute: 100  
M-factor chronic: 10

Hydrocarbons, C10-C13, aromatics, <1%  
naphthalene  
Content (W/W): < 50 %  
CAS Number: 64742-94-5

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

Alcohols, C16-18, ethoxylated propoxylated  
Content (W/W): < 30 %  
CAS Number: 68002-96-0

Acute Tox.: Cat. 2 (Inhalation - mist)  
Aquatic Acute: Cat. 1  
Aquatic Chronic: Cat. 3  
M-factor acute: 1

Naphthalene, 2-methyl-  
Content (W/W): < 20 %  
CAS Number: 91-57-6

Acute Tox.: Cat. 4 (oral)  
Aquatic Chronic: Cat. 2

Naphthalene, 1-methyl-  
Content (W/W): < 15 %  
CAS Number: 90-12-0

Asp. Tox.: Cat. 1  
Acute Tox.: Cat. 4 (oral)  
Aquatic Acute: Cat. 2  
Aquatic Chronic: Cat. 2

biphenyl  
Content (W/W): < 5 %  
CAS Number: 92-52-4

Acute Tox.: Cat. 5 (oral)  
Skin Corr./Irrit.: Cat. 2  
Eye Dam./Irrit.: Cat. 2A  
STOT SE: Cat. 3 (irr. to respiratory syst.)  
Aquatic Acute: Cat. 1  
Aquatic Chronic: Cat. 3  
M-factor acute: 1  
M-factor chronic: 1

Benzenesulfonic acid, 4-C10-13-sec-alkyl  
derivs., calcium salts  
Content (W/W): < 5 %  
CAS Number: 84989-14-0

Acute Tox.: Cat. 5 (oral)  
Acute Tox.: Cat. 5 (dermal)  
Skin Corr./Irrit.: Cat. 2  
Eye Dam./Irrit.: Cat. 1  
Aquatic Acute: Cat. 2  
Aquatic Chronic: Cat. 3

2-ethylhexan-1-ol  
Content (W/W): < 5 %  
CAS Number: 104-76-7

Flam. Liq.: Cat. 4  
Acute Tox.: Cat. 5 (oral)  
Acute Tox.: Cat. 4 (Inhalation - mist)  
Skin Corr./Irrit.: Cat. 2  
Eye Dam./Irrit.: Cat. 2A  
STOT SE: Cat. 3 (irr. to respiratory syst.)  
Aquatic Acute: Cat. 3

toluene  
Content (W/W): < 1 %  
CAS Number: 108-88-3

Asp. Tox.: Cat. 1  
Flam. Liq.: Cat. 2  
Skin Corr./Irrit.: Cat. 2  
Repr.: Cat. 2 (unborn child)  
STOT SE: Cat. 3 (drowsiness and dizziness)  
STOT RE (Central nervous system): Cat. 2  
Aquatic Acute: Cat. 2  
Aquatic Chronic: Cat. 3

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.

## 4. First-Aid Measures

### General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

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

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, consult an eye specialist.

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.

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## **5. Fire-Fighting Measures**

### **Extinguishing media**

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

### **Special hazards arising from the substance or mixture**

carbon monoxide, Carbon dioxide, hydrogen chloride, nitrogen oxides, halogenated compounds  
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:

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.

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## **6. Accidental Release Measures**

### **Personal precautions, protective equipment and emergency procedures**

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

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

For large amounts: Dike spillage. Pump off product.

Cleaning operations should be carried out only while wearing breathing apparatus. Collect waste in suitable containers, which can be labelled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Dispose of absorbed material in accordance with regulations. Wear suitable protective equipment.

**Reference to other sections**

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

**7. Handling and Storage****Precautions for safe handling**

When using do not eat, drink, or smoke. Hands and/or face should be washed before breaks and at the end of the shift. No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Vapours may form ignitable mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

**Conditions for safe storage, including any incompatibilities**

Segregate from foods and animal feeds.

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

Storage stability:

Storage duration: 60 Months

Protect from temperatures below: 10 °C

The product can crystallize below the limit temperature.

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.

Qualification requirements: The person mixing or applying this product must be a Qualified Person.

Certified handler: not required

Tracking: Not required

Record keeping: Records of use must be kept if 3 litres or more of the substance is applied within 24 hours.

**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 litres	100 litres	100 litres

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

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.

**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.

**8. Exposure Controls/Personal Protection****Control parameters**

Components with occupational exposure limits

biphenyl, 92-52-4;

TWA value 0.2 ppm (ACGIHTLV)

TWA value 1.3 mg/m<sup>3</sup> ; 0.2 ppm (OEL (NZ))

solvent naphtha, 64742-94-5;

TWA value 200 mg/m<sup>3</sup> (ACGIHTLV), Non-aerosol

Measured as: total hydrocarbon vapor

Application restricted to conditions in which there are negligible aerosol exposures.

Skin Designation (ACGIHTLV), Non-aerosol

Measured as: total hydrocarbon vapor

Danger of cutaneous absorption

Naphthalene, 1-methyl-, 90-12-0;

TWA value 0.5 ppm (ACGIHTLV)

Skin Designation (ACGIHTLV)

Danger of cutaneous absorption

Naphthalene, 2-methyl-, 91-57-6;

TWA value 0.5 ppm (ACGIHTLV)

Skin Designation (ACGIHTLV)

The substance can be absorbed through the skin.

Skin Designation (ACGIHTLV)

Danger of cutaneous absorption

## Exposure controls

### Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK).

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. 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:	liquid
Colour:	tan
Odour:	faintly aromatic
Odour threshold:	not determined since harmful by inhalation

pH value:	approx. 5 – 7 (1 %(m), 20 °C) (as an emulsion)
pour point:	approx. -5 °C (Information applies to the solvent)
Boiling range:	approx. 244 - 292 °C (Information applies to the solvent)
Flash point:	approx. 104 °C (ISO 2719)
Evaporation rate:	not applicable
Flammability:	not highly flammable
Lower explosion limit:	0.6 %(V) Information applies to the solvent.
Upper explosion limit:	7 %(V) Information applies to the solvent.
Ignition temperature:	425 °C (Directive 92/69/EEC, A.15) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Explosion hazard:	Based on the chemical structure there is no indicating of explosive properties.
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.
Vapour pressure:	approx. 0.003 hPa (20 °C). Information applies to the solvent.
Density:	approx. 1.05 g/cm <sup>3</sup> (20 °C)
Relative vapour density (air):	Heavier than air., Information based on the main components.
Solubility in water:	emulsifiable
Partitioning coefficient n-octanol/water (log Kow):	not applicable
Viscosity, dynamic:	approx. 64.2 mPa.s (20 °C, 100 1/s). (OECD 114) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
Viscosity, kinematic:	23.7 mm <sup>2</sup> /s (40 °C) The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

**Other information**

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

**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 MSDS section 7 - Handling and storage.

**Incompatible materials**

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

**Hazardous decomposition products**

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

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## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after single ingestion. Virtually nontoxic after a single skin contact. Of moderate toxicity after short-term inhalation. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data: LD50 rat (oral): 317 mg/kg

LC50 rat (by inhalation): > 1.14 - < 5.3 mg/l 4 h (OECD Guideline 403) An aerosol was tested.

LD50 rat (dermal): > 4,000 mg/kg (OECD Guideline 402)

#### Irritation

Assessment of irritating effects:

Skin contact causes irritation. Not irritating to the eyes. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:

Skin corrosion/irritation rabbit: Irritant. (OECD Guideline 404)

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

#### Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible.

Experimental/calculated data:

Guinea pig maximization test guinea pig: Caused skin sensitization in animal studies.

#### Germ cell mutagenicity

Assessment of mutagenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

#### 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.



*Information on: toluene*

*Assessment of teratogenicity:*

*Indications of possible developmental toxicity/teratogenicity were seen in animal studies.*

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#### Specific target organ toxicity (single exposure)

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

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.

*Information on: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yl]oxymethyl}phenyl}(N-methoxy) carbamate*

*Assessment of repeated dose toxicity:*

*After repeated exposure the prominent effect is local irritation. The substance may cause damage to the olfactory epithelium after repeated inhalation.*

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*Information on: biphenyl*

*Assessment of repeated dose toxicity:*

*The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.*

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*Information on: toluene*

*Assessment of repeated dose toxicity:*

*Repeated exposure to large quantities may affect certain organs. Damages the central nerve system. The substance may cause deafness after repeated inhalation.*

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*Information on: Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts*

*Assessment of repeated dose toxicity:*

*After repeated exposure the prominent effect is local irritation. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

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#### Aspiration hazard

No aspiration hazard expected.

#### Other relevant toxicity information

Misuse can be harmful to health.

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## 12. Ecological Information

### **Ecotoxicity**

Assessment of aquatic toxicity:

Very toxic to aquatic organisms 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) 0.0229 mg/l, *Oncorhynchus mykiss* (EPA 72-1, static)

Aquatic invertebrates:

EC50 (48 h) 0.046 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Aquatic plants:

EC50 (72 h) 0.27 mg/l (biomass), *Pseudokirchneriella subcapitata* (OECD Guideline 201)

EC50 (72 h) 0.69 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201)

*Information on: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate*

*Chronic toxicity to fish:*

*No observed effect concentration (98 d) approx. 0.00235 mg/l, Oncorhynchus mykiss (OECD Guideline 210, Flow through.)*

*Information on: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate*

*Chronic toxicity to aquatic invertebrates:*

*No observed effect concentration (21 d), 0.004 mg/l, Daphnia magna (OECD Guideline 202, part 2, semistatic)*

*The details of the toxic effect relate to the nominal concentration.*

*No observed effect concentration (28 d), 0.00128 mg/l, Mysidopsis bahia (OPP 72-4 (EPA-Guideline), Flow through.)*

*The statement of the toxic effect relates to the analytically determined concentration.*

### **Mobility in soil (and other compartments if available)**

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: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate*

*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 (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: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate*

*Assessment biodegradation and elimination (H<sub>2</sub>O): Not readily biodegradable (by OECD criteria).*

### **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: pyraclostrobin (ISO); methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-ylloxymethyl]phenyl}(N-methoxy)carbamate*

*Bioaccumulation potential:*

*Bioconcentration factor: 379 - 507, Oncorhynchus mykiss (OECD-Guideline 305)*

*Accumulation in organisms is not to be expected.*

### 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 Annex I of Regulation (EC) 2037/2000 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

CONTAINER: Ensure container is completely empty. Triple rinse empty container and add residue to the spray tank. Recycle through Agrecovery (0800 247 326, [www.agrecovery.co.nz](http://www.agrecovery.co.nz)).

PRODUCT: Dispose of this product only by using according to the label or at an approved landfill. Do NOT burn product. Do NOT contaminate water with product or used 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):

Packing Group	III
UN Number	UN 3082
Transport hazard class(es):	9, EHSM
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains PYRACLOSTROBIN, SOLVENT NAPHTHA)
HAZCHEM:	3[Z]
Marine Pollutant:	YES

Public transport:

Do NOT carry this product on a passenger service vehicle.

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## 15. Regulatory Information

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

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)

### **Chemical Safety Assessment**

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

### **NZ Regulations**

Approved pursuant to the HSNO Act 1996, Code HSR000652.

See [www.epa.govt.nz](http://www.epa.govt.nz) for approval conditions.

Registered pursuant to the ACVM Act 1997, No. P6017.

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

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## 16. Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

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.

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