

Safety data sheet

Page: 1/13

BASF Safety data sheet
Date / Revised: 05.04.2022
Product: **Opus**

Version: 4.1

(30035191/SDS_CPA_NZ/EN)

Date of print 22.10.2025

1. Substance/preparation and manufacturer/supplier identification

Opus

Use: crop protection product, fungicide

Manufacturer/supplier:

BASF New Zealand Ltd.
5E City Works Depot
77 Cook Street
Auckland Central, Auckland 1010
NEW ZEALAND
Telephone: +64 9 255-4300
Telefax number: +64 9 255-4307

Emergency information:

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. Hazard identification

Classification of the substance and mixture:

Acute toxicity: Cat. 4 (Inhalation - mist)
Skin corrosion/irritation: Cat. 2
Carcinogenicity: Cat. 2
Reproductive toxicity: Cat. 2 (fertility)
Reproductive toxicity: Cat. 2 (unborn child)
Hazardous to the aquatic environment - acute: Cat. 1
Hazardous to the aquatic environment - chronic: Cat. 1

Label elements and precautionary statement:

BASF Safety data sheet
Date / Revised: 05.04.2022
Product: **Opus**

Version: 4.1

(30035191/SDS_CPA_NZ/EN)

Date of print 22.10.2025

Pictogram:



Signal Word:
Warning

Hazard Statement:

H315	Causes skin irritation.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility. Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statement:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P201	Obtain special instructions before use.
P260	Do not breathe mist or vapour.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313	IF exposed or concerned: Get medical attention.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P391	Collect spillage.
P332 + P313	If skin irritation occurs: Get medical attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Storage):

P405	Store locked up.
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Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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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.

BASF Safety data sheet
Date / Revised: 05.04.2022
Product: **Opus**

Version: 4.1

(30035191/SDS_CPA_NZ/EN)

Date of print 22.10.2025

May produce an allergic reaction. Contains: MIXTURE OF: 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1)

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

crop protection product, fungicide, suspension concentrate (SC)

Hazardous ingredients

Epoxiconazole

Content (W/W): 11.96 %
CAS Number: 133855-98-8

Acute Tox.: Cat. 5 (oral)
Carc.: Cat. 2
Repr.: Cat. 2 (fertility)
Repr.: Cat. 2 (unborn child)
Aquatic Acute: Cat. 1
Aquatic Chronic: Cat. 1
M-factor acute: 10
M-factor chronic: 10

Alcohols, C16-18, ethoxylated propoxylated

Content (W/W): < 25 %
CAS Number: 68002-96-0

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

solvent naphtha

Content (W/W): < 20 %
CAS Number: 64742-94-5

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

Benzenesulfonic acid, hydroxy-, polymer with formaldehyde, phenol and urea, sodium salt

Content (W/W): < 5 %
CAS Number: 102980-04-1

Eye Dam./Irrit.: Cat. 2A
Aquatic Acute: Cat. 3
Aquatic Chronic: Cat. 3

mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

BASF Safety data sheet
Date / Revised: 05.04.2022
Product: **Opus**

Version: 4.1

(30035191/SDS_CPA_NZ/EN)

Date of print 22.10.2025

Content (W/W): < 0.05 %
CAS Number: 55965-84-9

Acute Tox.: Cat. 3 (oral)
Acute Tox.: Cat. 2 (Inhalation - mist)
Acute Tox.: Cat. 2 (dermal)
Skin Corr./Irrit.: Cat. 1C
Eye Dam./Irrit.: Cat. 1
Skin Sens.: Cat. 1A
Aquatic Acute: Cat. 1
Aquatic Chronic: Cat. 1
M-factor acute: 100
M-factor chronic: 100

propane-1,2-diol

Content (W/W): < 15 %
CAS Number: 57-55-6

4. First-Aid Measures

General advice:

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.

Note to physician:

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

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

5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

Specific hazards:

carbon monoxide, hydrogen chloride, hydrogen fluoride, carbon dioxide, nitrogen oxides, halogenated compounds, sulfur oxides

BASF Safety data sheet
Date / Revised: 05.04.2022
Product: **Opus**

Version: 4.1

(30035191/SDS_CPA_NZ/EN)

Date of print 22.10.2025

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. Wear suitable protective equipment.

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.

Storage stability:

Storage duration: 36 Months

Protect from temperatures below: 5 °C

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

Protect from temperatures above: 30 °C

The packed product must be protected against exceeding the indicated temperature.

8. Exposure controls and personal protection

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

solvent naphtha, 64742-94-5;

TWA value 200 mg/m³ (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

Skin Designation (ACGIHTLV), Non-aerosol

Measured as: total hydrocarbon vapor

Danger of cutaneous absorption

TWA value 200 mg/m³ (ACGIHTLV), Non-aerosol

Measured as: total hydrocarbon vapor

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

Epoxiconazole, 133855-98-8;

TWA value 0.3 mg/m³ (Recommendation of BASF), Respirable dust

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

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic, alkaline compounds and toxic particles (e. g. EN 14387 Type ABEK-P3)

BASF Safety data sheet
Date / Revised: 05.04.2022
Product: **Opus**

Version: 4.1

(30035191/SDS_CPA_NZ/EN)

Date of print 22.10.2025

Hand protection:

Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact
(Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): 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.

9. Physical and Chemical Properties

Form: liquid
Colour: pale beige
Odour: characteristic, of hydrocarbons
Odour threshold: Not determined since harmful by inhalation.

pH value: approx. 5.5 - 7.5
(20 °C)
(measured with the undiluted substance)

crystallization temperature: approx. -11.5 °C
Boiling range: approx. 100 °C
(1,013.25 hPa)
Information applies to the solvent.

Flash point: (Directive 92/69/EEC, A.9)
No flash point - Measurement made up to the boiling point.

Evaporation rate: not applicable

Flammability (solid/gas): not applicable

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.

BASF Safety data sheet
 Date / Revised: 05.04.2022
 Product: **Opus**

Version: 4.1

(30035191/SDS_CPA_NZ/EN)

Date of print 22.10.2025

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:	approx. 420 °C	(Directive 84/449/EEC, A.15)
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.	
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	
Vapour pressure:	approx. 23.4 hPa (20 °C) Information applies to the solvent.	
Density:	approx. 1.05 g/cm ³ (20 °C)	(Directive 92/69/EEC, A.3)
Relative vapour density (air):	not applicable	
Solubility in water:	dispersible	
Partitioning coefficient n-octanol/water (log Pow):	not applicable	
Viscosity, dynamic:	approx. 72.9 mPa.s (40 °C, 100 1/s)	(OECD 114)
Viscosity, kinematic:	70.3 mm ² /s (40 °C)	(OECD 114)

Other Information:

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

10. Stability and Reactivity

Conditions to avoid:

See SDS section 7 - Handling and storage.

Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
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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:

Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Experimental/calculated data:

LD50 rat (oral): > 2,000 mg/kg (OECD Guideline 423)

No mortality was observed.

LC50 rat (by inhalation): 3.25 mg/l 4 h (OECD Guideline 403)

An aerosol was tested.

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

No mortality was observed.

Irritation

Assessment of irritating effects:

Skin contact causes irritation. Not irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: (OECD Guideline 404)

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:

modified Buehler test guinea pig: (OECD Guideline 406)

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: Epoxiconazole

Assessment of carcinogenicity:

Indication of possible carcinogenic effect in animal tests.

Reproductive toxicity

Assessment of reproduction toxicity:

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

Information on: Epoxiconazole

Assessment of reproduction toxicity:

The results of animal studies suggest 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: Epoxiconazole

Assessment of teratogenicity:

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

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.

Information on: Epoxiconazole

Assessment of repeated dose toxicity:

Repeated exposure to large quantities may affect certain organs.

Information on: mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Assessment of repeated dose toxicity:

After repeated exposure the prominent effect is local irritation. Based on available data, the classification criteria are not met.

Aspiration hazard

No aspiration hazard expected.

(30035191/SDS_CPA_NZ/EN)

Date of print 22.10.2025

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

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

Very 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) 0.42 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 84/449/EEC, C.1, static)

Aquatic invertebrates:

EC50 (48 h) 3.1 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Aquatic plants:

EC50 (72 h) 1.52 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, static)

EC10 (72 h) 0.0072 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201, 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: Epoxiconazole

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.

Information on: Epoxiconazole

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Bioaccumulation potential

BASF Safety data sheet
Date / Revised: 05.04.2022
Product: **Opus**

Version: 4.1

(30035191/SDS_CPA_NZ/EN)

Date of print 22.10.2025

Assessment bioaccumulation potential:

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

Information on: Epoxiconazole

Bioaccumulation potential:

Bioconcentration factor: 59 - 70, Oncorhynchus mykiss (OECD-Guideline 305)

Does not accumulate in organisms.

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:

Packing group:	III
ID number:	UN 3082
Transport hazard class(es):	9, EHS
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains FATTY ALCOHOL ALCOXYLATE, SOLVENT NAPHTHA, EPOXICONAZOLE)

Further information

Hazchem Code:3Z

IERG Number:47

Sea transport

IMDG

Packing group:	III
ID number:	UN 3082
Transport hazard class(es):	9, EHS
Marine pollutant:	YES
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains FATTY ALCOHOL ALCOXYLATE, SOLVENT NAPHTHA, EPOXICONAZOLE)

BASF Safety data sheet
Date / Revised: 05.04.2022
Product: **Opus**

Version: 4.1

(30035191/SDS_CPA_NZ/EN)

Date of print 22.10.2025

Air transport

IATA/ICAO

Packing group:	III
ID number:	UN 3082
Transport hazard class(es):	9, EHSM
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains FATTY ALCOHOL ALCOXYLATE, SOLVENT NAPHTHA, EPOXICONAZOLE)

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) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

15. Regulatory Information

Other regulations

To avoid risks to man and the environment, comply with the instructions for use.

A certified handler is not required for the handling of this substance.
Tracking requirements do not apply to this substance.

ACVM Approval Number: P004365

16. Other Information

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. 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.