

# Safety data sheet

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BASF Safety data sheet  
Date / Revised: 06.07.2022  
Product: **Terpal®**

Version: 5.0

(30035202/SDS\_CPA\_NZ/EN)

Date of print): 17.11.2022

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

**Product name:**  
Terpal®

Use: crop protection product, growth regulator

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)

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## 2. Hazard identification

Classification of the substance and mixture:  
Corrosive to metals: Cat.1  
Acute toxicity: Cat.4 (oral)  
Hazardous to the aquatic environment - chronic: Cat.1

Label elements and precautionary statement:

Pictogram:



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Signal Word:  
Warning

Hazard Statement:

H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
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):

P270 Do not eat, drink or smoke when using this product.  
P234 Keep only in original packaging.  
P264 Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 Rinse mouth  
P391 Collect spillage.  
P390 Absorb spillage to prevent material damage.

Precautionary Statements (Storage):

P406 Store in a corrosion-resistant container with a resistant inner liner.

Precautionary Statements (Disposal):

P501 Dispose of contents and 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.

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### 3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

crop protection product, growth regulator, Soluble concentrate (SL)

**Hazardous ingredients**

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mepiquat chloride

Content (W/W): 27.98 %  
CAS Number: 24307-26-4

Acute Tox.: Cat. 4 (oral)  
Acute Tox.: Cat. 5 (Inhalation - mist)  
Aquatic Acute: Cat. 3  
Aquatic Chronic: Cat. 3

ethephon

Content (W/W): 14.2 %  
CAS Number: 16672-87-0

Acute Tox.: Cat. 4 (Inhalation - dust)  
Acute Tox.: Cat. 4 (oral)  
Acute Tox.: Cat. 3 (dermal)  
Skin Corr./Irrit.: Cat. 1C  
Aquatic Acute: Cat. 2  
Aquatic Chronic: Cat. 2

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#### 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.

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.

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#### 5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Specific hazards:

carbon monoxide, hydrogen chloride, carbon dioxide, nitrogen oxides, Phosphorus compounds, halogenated compounds

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.

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

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.

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## 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: 48 Months

Protect from temperatures below: -10 °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: 40 °C

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

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## 8. Exposure controls and personal protection

### Components with occupational exposure limits

No substance specific occupational exposure limits known.

### 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)

#### 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.

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## 9. Physical and Chemical Properties

Form: liquid  
Colour: colourless  
Odour: aromatic  
Odour threshold: Not determined due to potential health hazard by inhalation.

pH value: approx. 1.1 - 3.1  
(CIPAC standard water D, 1 %(m),  
20 °C)

crystallization temperature: approx. -14.9 °C  
Boiling point: approx. 100 °C

Flash point: (ISO 2719)  
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.
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. 415 °C (Directive 92/69/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 hPa (20 °C) Information applies to the solvent.
Density:	approx. 1.09 g/cm <sup>3</sup> (20 °C)
Relative vapour density (air):	not applicable
Solubility in water:	fully soluble
Partitioning coefficient n-octanol/water (log Pow):	The statements are based on the properties of the individual components.
Information on: mepiquat chloride	
Partitioning coefficient n-octanol/water (log Pow):	2.82 (pH value: 7)
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Viscosity, dynamic:	approx. 4.1 mPa.s (20 °C)

**Other Information:**

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

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## 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.

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

Corrosion to metals: Aluminium

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.

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

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## 11. Toxicological Information

### Routes of exposure

#### Acute oral toxicity

Experimental/calculated data:  
LD50rat (oral): > 500 - < 2,000 mg/kg (OECD Guideline 423)

#### Acute inhalation toxicity

LC50 rat (by inhalation): > 5.3 mg/l 4 h (OECD Guideline 403)  
No mortality was observed. An aerosol was tested.

#### Acute dermal toxicity

LD50 rat (dermal): > 4,000 mg/kg (OECD Guideline 402)  
No mortality was observed.

#### Assessment of acute toxicity

Of moderate toxicity after single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

#### 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

#### 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)

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:

### **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. 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. 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)**

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

### **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**



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 life with long lasting effects.

Toxicity to fish:  
LC50 (96 h) > 100 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 84/449/EEC, C.1, static)

Aquatic invertebrates:  
EC50 (48 h) > 100 mg/l, *Daphnia magna*

Aquatic plants:  
EC10 (72 h) > 1,000 mg/l, *Pseudokirchneriella subcapitata*

EC50 (7 d) > 100 mg/l (growth rate), *Lemna gibba* (OECD guideline 221)

No observed effect concentration (7 d) 0.001 mg/l (growth rate), *Lemna gibba* (OECD guideline 221)

Chronic toxicity to fish:  
No observed effect concentration (28 d) < 1 mg/l, *Oncorhynchus mykiss*

### 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: ethephon  
Assessment transport between environmental compartments:  
Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Information on: mepiquat chloride  
Assessment transport between environmental compartments:  
Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.  
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### 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: mepiquat chloride  
Assessment biodegradation and elimination (H<sub>2</sub>O):  
| Readily biodegradable (according to OECD criteria).

Information on: ethephon  
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### **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: mepiquat chloride  
Assessment bioaccumulation potential:  
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Information on: ethephon  
Bioaccumulation potential:  
Accumulation in organisms is not to be expected. The product has not been tested. The statement has been derived from the properties of the hydrolysis products.  
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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**

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.

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## **14. Transport Information**

### **Domestic transport:**

UN number or ID number: UN 3265  
UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ETHEPHON)  
CORROSIVE ON ALUMINIUM  
Transport hazard class(es): 8, EHS  
Packing group: III  
Environmental hazards: yes  
Special precautions for user: None known

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**Further information**

Hazchem Code:2X  
IERG Number:36

**Sea transport**

IMDG

UN number or ID number:	UN 3265
UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ETHEPHON) CORROSIVE ON ALUMINIUM
Transport hazard class(es):	8, EHSM
Packing group:	III
Environmental hazards:	yes Marine pollutant: YES
Special precautions for user:	EmS: F-A; S-B

**Air transport**

IATA/ICAO

UN number or ID number:	UN 3265
UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ETHEPHON) CORROSIVE ON ALUMINIUM
Transport hazard class(es):	8
Packing group:	III
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

**15. Regulatory Information****Other regulations**

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

ACVM Approval Number: P003483

**16. Other Information**

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

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