

Safety data sheet

Page: 1/12

BASF Safety data sheet
Date / Revised: 31.01.2025
Product: **Efficon**

Version: 3.0

(30795998/SDS_CPA_SG/EN)

Date of print: 27.05.2026

1. Substance/preparation and manufacturer/supplier identification

Product name:
Efficon

Use: crop protection product, insecticide

Manufacturer/supplier:

BASF South East Asia Pte Ltd.
128 Beach Road #18-01
Guoco Midtown, 189773, Singapore
Telephone: +65 8322 4420
Telefax number: +65 6 334-0330
E-mail address: benny.zou@basf.com

Emergency information:

Singapore Emergency Toll-Free Number:
Telephone: +65 31638374
International emergency number:
Telephone: +49 180 2273-112

2. Hazard identification

Classification of the substance and mixture:
Hazardous to the aquatic environment - acute: Cat.3

Label elements and precautionary statement:

Hazard Statement:
H402 Harmful to aquatic life.

Precautionary Statement:

BASF Safety data sheet
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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 (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.

3. Composition/information on ingredients

Chemical nature

Substance nature: mixture

crop protection product, insecticide

Hazardous ingredients

1H-Pyrazole-4-carboxamide, 1-(1,2-dimethylpropyl)-N-ethyl-5-methyl-N-4-pyridazinyl-

Content (W/W): 10.79 % Acute Tox.: Cat. 4 (oral)
CAS Number: 1403615-77-9 Aquatic Acute: Cat. 3

propylene carbonate

Content (W/W): < 25 % Eye Irrit.: Cat. 2A
CAS Number: 108-32-7

cyclohexanone

Content (W/W): < 5 % Flam. Liq.: Cat. 3
CAS Number: 108-94-1 Acute Tox.: Cat. 4 (Inhalation - vapour)
Acute Tox.: Cat. 4 (oral)
Acute Tox.: Cat. 4 (dermal)
Skin Irrit.: Cat. 2
Eye Dam.: Cat. 1
STOT SE: Cat. 3 (irr. to respiratory syst.)

Alcohols, C12-18, ethoxylated propoxylated

Content (W/W): < 5 % Aquatic Acute: Cat. 2
CAS Number: 69227-21-0

polyethylene glycol

Content (W/W): < 50 %
CAS Number: 25322-68-3

BASF Safety data sheet
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propane-1,2-diol
Content (W/W): < 20 %
CAS Number: 57-55-6

4. First-Aid Measures

General advice:

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:

Rinse mouth and then drink 200-300 ml of water.

Note to physician:

Symptoms: (Further) symptoms and / or effects are not known so far

Hazards: (Further) symptoms and / or effects are not known so far

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, dry powder, foam, carbon dioxide

Specific hazards:

carbon monoxide, hydrogen chloride, carbon dioxide, nitrogen oxides, halogenated compounds, sulfur oxides, potassium oxides, sodium 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:

Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. 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.

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.

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:

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

Storage

Segregate from foods and animal feeds.

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

Storage stability:

Storage duration: 24 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.

8. Exposure controls and personal protection

Components with occupational exposure limits

cyclohexanone, 108-94-1;

TWA value 20 ppm (ACGIHTLV)

STEL value 50 ppm (ACGIHTLV)

TWA value 100 mg/m³ ; 25 ppm (OEL (SG))

Skin Designation (ACGIHTLV)

Danger of cutaneous absorption

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Personal protective equipment

Respiratory protection:
Respiratory protection not required.

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: dark brown
Odour: flowery
Odour threshold: Not determined due to potential health hazard by inhalation.

pH value: approx. 4 - 6
(1 %(m), 20 °C)

Melting point: The product has not been tested.

Boiling point: The product has not been tested.

Flash point: 94 °C

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. 400 °C
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
SADT:	No data available.
Explosion hazard:	not explosive
Fire promoting properties:	not fire-propagating
Vapour pressure:	The product has not been tested.
Density:	approx. 1.11 g/cm ³ (20 °C)
Relative density:	No data available.
Relative vapour density (air):	not applicable
Solubility in water:	dispersible
Partitioning coefficient n-octanol/water (log Pow):	The statements are based on the properties of the individual components.
Information on: 1H-Pyrazole-4-carboxamide, 1-(1,2-dimethylpropyl)-N-ethyl-5-methyl-N-4-pyridazinyl-	
Partitioning coefficient n-octanol/water (log Pow):	approx. 1.1 (20 °C; pH value: 6)

Viscosity, dynamic:	approx. 71 mPa.s (approx. 20 °C, 100 1/s)
Viscosity, kinematic:	No data available.

Other Information:

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

Particle characteristics

Particle size distribution:	The substance / product is marketed or used in a non solid or granular form. -
Specific Surface Area:	No data available.
Particle Shape:	No data available.
Dustiness:	No data available.

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 acids, strong bases, 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.

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

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

11. Toxicological Information

Routes of exposure

Acute oral toxicity

Experimental/calculated data:
LD50rat (oral): > 2,000 mg/kg (OECD Guideline 423)
No mortality was observed.

Acute inhalation toxicity

LC50 rat (by inhalation): > 5,108 mg/l (OECD Guideline 403)

Acute dermal toxicity

LD50 rat (dermal): > 2,000 mg/kg (OECD Guideline 402)
No mortality was observed.

Assessment of acute toxicity

Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Virtually nontoxic after a single ingestion.

Symptoms

(Further) symptoms and / or effects are not known so far

Irritation

Assessment of irritating effects:
Not irritating to eyes and skin.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

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

Respiratory/Skin sensitization

Assessment of sensitization:
No sensitizing effect.

Experimental/calculated data:
Mouse Local Lymph Node Assay (LLNA) : Non-sensitizing. (OECD Guideline 429)

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.

Experimental/calculated data:
No data available.

Information on: cyclohexanone
Assessment of carcinogenicity:
In long-term animal studies in which the substance was given in the drinking water in high doses, a carcinogenic effect was observed. Due to the rat-specific mode of action, no carcinogenic effects are expected in man. Hence, the findings are of low relevance for humans. IARC Group 3 (not classifiable as to human carcinogenicity).

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.

Experimental/calculated data:
No data available.

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: cyclohexanone
Assessment of teratogenicity:
The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were 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.

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 organotoxicity was observed after repeated administration to animals.

Experimental/calculated data:
No data available.

Aspiration hazard

not applicable

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:
Harmful to aquatic life.

Toxicity to fish:
LC50 (96 h) 21.8 mg/l, *Oncorhynchus mykiss*

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

Aquatic plants:
EC50 (72 h) > 100 mg/l (growth rate), *Pseudokirchneriella subcapitata*

Microorganisms/Effect on activated sludge:
No data available.

Chronic toxicity to fish:
No data available.

Chronic toxicity to aquatic invertebrates:
No data available.

Information on: 1H-Pyrazole-4-carboxamide, 1-(1,2-dimethylpropyl)-N-ethyl-5-methyl-N-4-pyridazinyl-

Chronic toxicity to fish:

No observed effect concentration > 10.7 mg/l, *Oncorhynchus mykiss*

Information on: 1H-Pyrazole-4-carboxamide, 1-(1,2-dimethylpropyl)-N-ethyl-5-methyl-N-4-pyridazinyl-

Chronic toxicity to aquatic invertebrates:

No observed effect concentration, > 2 mg/l, *Daphnia magna*

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: 1H-Pyrazole-4-carboxamide, 1-(1,2-dimethylpropyl)-N-ethyl-5-methyl-N-4-pyridazinyl-

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.

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: 1H-Pyrazole-4-carboxamide, 1-(1,2-dimethylpropyl)-N-ethyl-5-methyl-N-4-pyridazinyl-

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

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: 1H-Pyrazole-4-carboxamide, 1-(1,2-dimethylpropyl)-N-ethyl-5-methyl-N-4-pyridazinyl-

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

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:

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Sea transport

IMDG

	Not classified as a dangerous good under transport regulations
UN number or ID number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
	Marine pollutant: no
Special precautions for user	None known

Air transport

IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number or ID number	Not applicable
Proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

15. Regulatory Information

Other regulations

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

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.