

Safety data sheet

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BASF Safety data sheet
Date / Revised: 01.04.2016
Product: **PERFEKTHION**

Version: 5.1

(30056663/SDS_CPA_PH/EN)

Date of print 02.04.2016

1. Substance/preparation and manufacturer/supplier identification

PERFEKTHION

Use: crop protection product, insecticide

Manufacturer/supplier:

BASF Philippines, Inc.
11/F HHIC Building, 1128 University Parkway,
North Bonifacio, Global City, Taguig, Metro Manila, PHILIPPINES
Telephone: +63 2 811-8000
Telefax number: +63 2 838-1025

Emergency information:

National emergency number:
+63 2 831 5576
International emergency number:
Telephone: +49 180 2273-112

2. Hazard identification

Classification of the substance and mixture:

Flammable liquids: Cat. 3
Acute toxicity: Cat. 4 (oral)
Acute toxicity: Cat. 4 (Inhalation - mist)
Skin sensitization: Cat. 1B
Hazardous to the aquatic environment - acute: Cat. 2
Hazardous to the aquatic environment - chronic: Cat. 1

Label elements and precautionary statement:

Pictogram:



Signal Word:

Warning

Hazard Statement:

Flammable liquid and vapour. Harmful if inhaled. Harmful if swallowed. May cause an allergic skin reaction. Toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

Wear protective gloves and eye/face protection. Use only outdoors or in a well-ventilated area. Do not breathe mist or vapour. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use explosion-proof electrical/ventilating/lighting/equipment. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated body parts thoroughly after handling. Do not eat, drink or smoke when using this product. Keep container tightly closed. Use only non-sparking tools. Ground/bond container and receiving equipment.

Precautionary Statements (Response):

Call a POISON CENTER or doctor/physician if you feel unwell. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician. Rinse mouth. Collect spillage. Take off contaminated clothing and wash it before reuse. In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.

Precautionary Statements (Storage):

Store in a well-ventilated place. Keep cool.

Precautionary Statements (Disposal):

Dispose of contents/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

crop protection product, insecticide, Emulsifiable concentrate (EC)

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Hazardous ingredients

Dimethoate

Content (W/W): 37.4 %
CAS Number: 60-51-5

Self-react.: Cat. F
Acute Tox.: Cat. 4 (Inhalation - dust)
Acute Tox.: Cat. 4 (oral)
Acute Tox.: Cat. 4 (dermal)
Aquatic Acute: Cat. 2
Aquatic Chronic: Cat. 1

cyclohexanone

Content (W/W): < 60 %
CAS Number: 108-94-1

Flam. Liq.: Cat. 3
Acute Tox.: Cat. 4 (Inhalation - vapour)
Acute Tox.: Cat. 4 (oral)
Acute Tox.: Cat. 4 (dermal)
Skin Corr./Irrit.: Cat. 2
Eye Dam./Irrit.: Cat. 1
Aquatic Acute: Cat. 3

xylene

Content (W/W): < 10 %
CAS Number: 1330-20-7

Asp. Tox.: Cat. 1
Flam. Liq.: Cat. 3
Acute Tox.: Cat. 5 (Inhalation - vapour)
Acute Tox.: Cat. 5 (oral)
Skin Corr./Irrit.: Cat. 2
Eye Dam./Irrit.: Cat. 2B
STOT SE: Cat. 3 (irr. to respiratory syst.)
STOT RE (Central nervous system, Liver, Kidney): Cat. 2
Aquatic Acute: Cat. 2
Aquatic Chronic: Cat. 3

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.

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Note to physician:

Symptoms: inhibition of cholinesterase

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.

Treatment: Treat according to symptoms (decontamination, vital function), administer atropine for cholinesterasis inhibition.

5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, foam, dry powder, carbon dioxide

Specific hazards:

carbon monoxide, carbon dioxide, nitrogen oxides, sulfur 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:

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:

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: 25 °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;

Skin Designation (ACGIHTLV)

The substance can be absorbed through the skin.

STEL value 50 ppm (ACGIHTLV)

TWA value 20 ppm (ACGIHTLV)

TWA value 200 mg/m³ ; 50 ppm (OEL (PH))

xylene, 1330-20-7;

TWA value 100 ppm (ACGIHTLV)

STEL value 150 ppm (ACGIHTLV)

TWA value 0.1 mg/m³ (OEL (PH))

(OEL (PH))

Included in the regulation, but with no data values - See the regulation for further details

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) etc.

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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:	blue	
Odour:	of mercaptans, of acetone	
Odour threshold:	Not determined since harmful by inhalation.	
pH value:	approx. 5.5 - 7.5 (water, 1 %(m), 25 °C)	
crystallization temperature:	< -10 °C	
Boiling point:	approx. 150.7 °C	
Flash point:	43 °C	(DIN 51755)
Evaporation rate:	not applicable	
Flammability (solid/gas):	Flammable.	
Lower explosion limit:	1.1 %(V) Information applies to the solvent.	
Upper explosion limit:	9.9 %(V) Information applies to the solvent.	
Ignition temperature:	approx. 310 °C	(DIN 51794)
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	
Vapour pressure:	approx. 5 mbar (20 °C) Information applies to the solvent.	
Density:	approx. 1.07 g/cm ³ (20 °C)	
Relative vapour density (air):	not applicable	
Solubility in water:	emulsifiable	

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Partitioning coefficient n-octanol/water (log Pow):
not applicable

Information on: Dimethoate

Partitioning coefficient n-octanol/water (log Pow): 0.704

Viscosity, dynamic: approx. 8.8 mPa.s (OECD 114)
(20 °C)

Other Information:

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

10. Stability and Reactivity

Conditions to avoid:
See MSDS section 7 - Handling and storage.

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

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

Experimental/calculated data:
LD50 rat (oral): 300 - 500 mg/kg

LC50 rat (by inhalation): approx. 3 mg/l 4 h
An aerosol was tested.

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

Irritation

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

Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant

Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Experimental/calculated data:
Guinea pig maximization test guinea pig: skin sensitizing (OECD Guideline 406)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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: 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.

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):

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: Dimethoate**Assessment of repeated dose toxicity:**

No substance-specific organotoxicity was observed after repeated administration to animals. The substance causes a decrease in cholinesterase activity.

Information on: xylene**Assessment of repeated dose toxicity:**

Repeated exposure may affect certain organs. Damages the central nerve system. The substance can cause changes in the following organs after repeated exposure to large quantities: Liver Kidney

Aspiration hazard

No aspiration hazard expected.

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:**

Toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Toxicity to fish:

LC50 (96 h) 61.3 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 84/449/EEC, C.1)

Aquatic invertebrates:

EC50 (48 h) 5.44 mg/l, *Daphnia magna* (OECD Guideline 202, part 1)

Aquatic plants:

EC50 (72 h) 233 mg/l, *Pseudokirchneriella subcapitata* (OECD Guideline 201)

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: Dimethoate

Assessment transport between environmental compartments:

The substance will slowly evaporate into the atmosphere from the water surface.

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: Dimethoate

Assessment biodegradation and elimination (H₂O):

Readily biodegradable (according to 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: Dimethoate

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.

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14. Transport Information

Domestic transport:

Hazard class: 3
Packing group: III
ID number: UN 1993
Hazard label: 3, EHSM
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (contains XYLENE, CYCLOHEXANONE, DIMETHOATE)

Sea transport

IMDG

Hazard class: 3
Packing group: III
ID number: UN 1993
Hazard label: 3, EHSM
Marine pollutant: YES
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (contains XYLENE, CYCLOHEXANONE, DIMETHOATE)

Air transport

IATA/ICAO

Hazard class: 3
Packing group: III
ID number: UN 1993
Hazard label: 3
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (contains XYLENE, CYCLOHEXANONE, DIMETHOATE)

15. Regulatory Information

Regulations of the European union (Labelling)

EEC Directives:

Hazard symbol(s)
Xn

Harmful.

R-phrases(s)
R10
R21/22

Flammable.
Harmful in contact with skin and if swallowed.

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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.
S36/37	Wear suitable protective clothing and gloves.
S46	If swallowed, seek medical advice immediately and show this container or label.

Hazard determining component(s) for labelling: DIMETHOATE, CYCLOHEXANONE, XYLENE

Other regulations

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

Registration status:

PICCS, PH released / listed
005-045-0533

PICCS, PH released / listed

16. Other Information

Organization that prepared the MSDS: RCQM
Person who prepared the MSDS: Derrick Clarin
Address/ Tel: BASF Philippines, Inc., 103 Progress Ave., Carmelray Industrial Park I, Calamba, Laguna, Philippines. +6328894321
Date the MSDS was prepared: See top of the page

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. The data do not describe the product's properties (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 to ensure any proprietary rights and existing laws and legislation are observed.