

Safety data sheet

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BASF Safety data sheet
Date / Revised: 05.08.2021
Product: **Perfekthion® 40 EC**

Version: 6.0

(30059636/SDS_CPA_PH/EN)

Date of print 05.05.2023

1. Substance/preparation and manufacturer/supplier identification

Perfekthion® 40 EC

Use: crop protection product, insecticide

Manufacturer/supplier:

BASF Philippines, Inc.
Upper Penthouse CTP ASEAN Tower
Asean Drive, Spectrum District
Filinvest Corporate City, Alabang,
Muntinlupa City, 1781, Metro Manila
PHILIPPINES
Telephone: +63 2 8811-8000
E-mail address: psr.ph@basf.com

Emergency information:

National emergency number:
+63 2 8831 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:

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H302 + H332	Harmful if swallowed or if inhaled
H401	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 and eye protection or face protection.
P271	Use only outdoors or in a well-ventilated area.
P260	Do not breathe mist or vapour.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P272	Contaminated work clothing should not be allowed out of the workplace.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.
P233	Keep container tightly closed.
P242	Use only non-sparking tools.
P240	Ground and bond container and receiving equipment.

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.
P303 + P361 + P353	IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P330	Rinse mouth
P391	Collect spillage.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.

Precautionary Statements (Storage):

P403 + P235	Store in a well-ventilated place. Keep cool.
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Precautionary Statements (Disposal):

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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

crop protection product, insecticide, Emulsifiable concentrate (EC)

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

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.

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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: inhibition of cholinesterase

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 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.

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

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;

TWA value 20 ppm (ACGIHTLV)

STEL value 50 ppm (ACGIHTLV)

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

Skin Designation (ACGIHTLV)

Danger of cutaneous absorption

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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 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.

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.

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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:	145 °C , 290 kJ/kg (onset temperature)	(DSC (OECD 113))
	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.	
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	
Partitioning coefficient n-octanol/water (log Pow):	The statements are based on the properties of the individual components.	
Information on: Dimethoate		
Partitioning coefficient n-octanol/water (log Pow):	0.704 (20 °C)	

Viscosity, dynamic:	approx. 8.8 mPa.s (20 °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: 145 °C, 290 kJ/kg (DSC (OECD 113))
(onset temperature)

Thermal decomposition: Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

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. Of moderate toxicity after single ingestion. Virtually nontoxic after a single skin contact. 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): 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. 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: non-irritant

Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Experimental/calculated data:

Guinea pig maximization test guinea pig: skin sensitizing (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

Mutagenicity tests revealed no genotoxic potential. 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.

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 results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

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: 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.

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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) 476.6 mg/l, *Pseudokirchneriella subcapitata* (OECD Guideline 201)

No observed effect concentration (72 h) 56.6 mg/l, *Pseudokirchneriella subcapitata*

Chronic toxicity to fish:

No observed effect concentration (21 d) 0.72 mg/l, *Oncorhynchus mykiss*

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (21 d), 0.06 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: 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.

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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
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:

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

Sea transport

IMDG

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

Air transport

IATA/ICAO

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

15. Regulatory Information

Hazard determining component(s) for labelling: Dimethoate, CYCLOHEXANONE

Other regulations

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

1. Joint DTI-DENR-DA-DOF-DOH-DILG-DOLE-DOTC Administrative Order No. 01 Series of 2009 on "The Adoption and Implementation of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)"
2. DAO 2015-09 "Rules and Procedures for the Implementation of the Globally Harmonized System (GHS) of Classification and Labelling of Chemicals in Preparation of Safety Data Sheet (SDS) and Labelling Requirements of Toxic Chemical Substances"
3. Republic Act No. 6969, "Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990"

The regulatory information is not intended to be comprehensive. Other regulations may apply to the material

Registration status:

PICCS, PH

Listed or exempted.

16. Other Information

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