

Safety data sheet

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BASF Safety data sheet

Date / Revised: 18.10.2021

Product: **Abate Temephos 50% EC**

Version: 5.0

(30617485/SDS_GEN_SG/EN)

Date of print 29.05.2024

1. Substance/preparation and manufacturer/supplier identification

Abate Temephos 50% EC

Use: biocide

Manufacturer/supplier:

BASF South East Asia Pte Ltd.

128 Beach Road #18-01

Guoco Midtown, 189773, Singapore

Telephone: +65 6 337-0330

Telefax number: +65 6 334-0330

E-mail address: xinhui.khaw@basf.com

Emergency information:

Singapore Emergency Toll-Free Number:

Telephone: 1800-723-1361

International emergency number:

Telephone: +49 180 2273-112

2. Hazard identification

Classification of the substance and mixture:

Aspiration hazard: Cat. 1

Flammable liquids: Cat. 2

Acute toxicity: Cat. 4 (Inhalation - mist)

Serious eye damage/eye irritation: Cat. 2A

Specific target organ toxicity — single exposure: Cat. 3 (irritating to respiratory system)

Specific target organ toxicity — repeated exposure: Cat. 1

Hazardous to the aquatic environment - acute: Cat. 1

Hazardous to the aquatic environment - chronic: Cat. 1

Label elements and precautionary statement:

Pictogram:



Signal Word:

Danger

Hazard Statement:

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
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):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/clothing/eye protection.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243	Take action to prevent static discharges.
P260	Do not breathe mist.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.
P240	Ground and bond container and receiving equipment.
P242	Use only non-sparking tools.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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.
P314	Get medical advice/attention if you feel unwell.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
P391	Collect spillage.
P331	Do NOT induce vomiting.
P370 + P378	In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.

Precautionary Statements (Storage):

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P233 Keep container tightly closed.
 P403 + P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.

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

Biocidal product

Hazardous ingredients

Temephos (ISO); O,O,O',O'-Tetramethyl O,O'-(thiodi-4,1-phenylene) phosphorothioate

Content (W/W): 47.4 %

CAS Number: 3383-96-8

Acute Tox.: Cat. 4 (Inhalation - vapour)

Acute Tox.: Cat. 5 (oral)

Acute Tox.: Cat. 5 (dermal)

STOT RE: Cat. 1

Aquatic Acute: Cat. 1

Aquatic Chronic: Cat. 1

xylene

Content (W/W): < 50 %

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

Poly(oxy-1,2-ethanediyl), .alpha.-[tris(1-phenylethyl)phenyl]-.omega.-hydroxy-

Content (W/W): < 5 %

CAS Number: 99734-09-5

Aquatic Chronic: Cat. 3

| Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts

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Content (W/W): < 5 %
 CAS Number: 84989-14-0

Acute Tox.: Cat. 5 (oral)
 Acute Tox.: Cat. 5 (dermal)
 Skin Corr./Irrit.: Cat. 2
 Eye Dam./Irrit.: Cat. 1
 Aquatic Acute: Cat. 2
 Aquatic Chronic: Cat. 3

isobutyl alcohol

Content (W/W): < 5 %
 CAS Number: 78-83-1

Asp. Tox.: Cat. 2
 Flam. Liq.: Cat. 3
 Acute Tox.: Cat. 5 (oral)
 Acute Tox.: Cat. 5 (dermal)
 Skin Corr./Irrit.: Cat. 2
 Eye Dam./Irrit.: Cat. 1
 STOT SE: Cat. 3 (drowsiness and dizziness)
 STOT SE: Cat. 3 (irr. to respiratory syst.)

toluene

Content (W/W): < 3 %
 CAS Number: 108-88-3

Asp. Tox.: Cat. 1
 Flam. Liq.: Cat. 2
 Skin Corr./Irrit.: Cat. 2
 Repr.: Cat. 2 (unborn child)
 STOT SE: Cat. 3 (drowsiness and dizziness)
 STOT RE (Central nervous system): Cat. 2
 Aquatic Acute: Cat. 2
 Aquatic Chronic: Cat. 3

4. First-Aid Measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Immediately wash thoroughly with soap and water, seek medical attention.

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. Do not induce vomiting due to aspiration hazard.

Note to physician:

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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
Hazards: Risk of pneumonia. Risk of decrease in cholinesterase activity.
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, carbon dioxide, sulfur oxides, phosphorus oxides, nitrogen 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 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

isobutyl alcohol, 78-83-1;

TWA value 50 ppm (ACGIHTLV)

TWA value 152 mg/m³ ; 50 ppm (OEL (SG))

ethylbenzene, 100-41-4;

TWA value 20 ppm (ACGIHTLV)

TWA value 434 mg/m³ ; 100 ppm (OEL (SG))

STEL value 543 mg/m³ ; 125 ppm (OEL (SG))

toluene, 108-88-3;

TWA value 20 ppm (ACGIHTLV)

TWA value 188 mg/m³ ; 50 ppm (OEL (SG))

xylene, 1330-20-7;

TWA value 100 ppm (ACGIHTLV)

STEL value 150 ppm (ACGIHTLV)

TWA value 434 mg/m³ ; 100 ppm (OEL (SG))

STEL value 651 mg/m³ ; 150 ppm (OEL (SG))

temephos, 3383-96-8;

TWA value 10 mg/m³ (OEL (SG))
 TWA value 1 mg/m³ (ACGIHTLV), Inhalable fraction
 Skin Designation (ACGIHTLV), Inhalable fraction
 The substance can be absorbed through the skin.
 Skin Designation (ACGIHTLV), Inhalable fraction
 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)

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:

Handle in accordance with good industrial hygiene and safety practice. 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:	yellow to amber	
Odour:	characteristic	
Odour threshold:	Not determined since harmful by inhalation.	
pH value:	approx. 5 - 7 (20 °C)	
Melting point:	approx. -63 °C Information applies to the solvent.	(other)
Boiling range:	approx. 137 - 140 °C (1,013 hPa) Information applies to the solvent.	(other)
Flash point:	21 °C	(closed cup)
Evaporation rate:	not applicable	

Flammability (solid/gas):	Flammable.
Lower explosion limit:	1 %(V) Information applies to the solvent.
Upper explosion limit:	7.8 %(V) Information applies to the solvent.
Ignition temperature:	430 °C Information applies to the solvent.
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Explosion hazard:	not explosive
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.
Vapour pressure:	approx. 9 hPa (20 °C) Information applies to the solvent.
Density:	approx. 1.06 g/cm ³ (20 °C)
Relative vapour density (air):	not applicable
Solubility in water:	emulsifiable
Partitioning coefficient n-octanol/water (log Pow):	not applicable
Viscosity, dynamic:	0.74 mPa.s (25 °C) Information applies to the solvent.

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 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.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:

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

Experimental/calculated data:

LD50 rat (oral): > 5,000 mg/kg

LC50 (by inhalation): > 1.6 mg/l

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. No mortality was observed. An aerosol was tested.

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

No mortality was observed.

Irritation

Assessment of irritating effects:

Not irritating to the skin. Eye contact causes irritation.

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

Information on: Temephos (ISO); O,O,O',O'-Tetramethyl O,O'-(thiodi-4,1-phenylene) phosphorothioate

Experimental/calculated data:

Buehler test guinea pig: Non-sensitizing.

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.

Information on: toluene

Assessment of teratogenicity:

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

Specific target organ toxicity (single exposure):

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

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: Temephos (ISO); O,O,O',O'-Tetramethyl O,O'-(thiodi-4,1-phenylene) phosphorothioate

Assessment of repeated dose toxicity:

Causes mortality and signs of neurotoxicity through prolonged or repeated exposure.

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

Information on: Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., calcium salts

Assessment of repeated dose toxicity:

After repeated exposure the prominent effect is local irritation. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aspiration hazard

May also damage the lung at swallowing (aspiration hazard).

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) 5.4 mg/l, *Cyprinodon variegatus* (Flow through.)

Aquatic invertebrates:

EC50 (96 h) 0.014 mg/l, other (Flow through.)

Aquatic plants:

not determined

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: Temephos (ISO); O,O,O',O'-Tetramethyl O,O'-(thiodi-4,1-phenylene) phosphorothioate

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: Temephos (ISO); O,O,O',O'-Tetramethyl O,O'-(thiodi-4,1-phenylene) phosphorothioate

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.

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Information on: Temephos (ISO); O,O,O',O'-Tetramethyl O,O'-(thiodi-4,1-phenylene) phosphorothioate
Bioaccumulation potential:
Bioconcentration factor: 2,300 (28 d), *Lepomis macrochirus* (other)
Significant 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 disposed of or incinerated in accordance with 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: II
ID number: UN 1993
Transport hazard class(es): 3, EHSM
Proper shipping name: FLAMMABLE LIQUID, N.O.S. (contains XYLENE, TEMEPHOS)

Sea transport

IMDG

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

Air transport

IATA/ICAO

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

15. Regulatory Information

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Hazard determining component(s) for labelling: TEMEPHOS, XYLENE

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

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.