

SAFETY DATA SHEET

TOLCIDE®PS75

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Date: 15/08/2002

Version: 1 UK

Cancels and replaces version: UK

1 Product and company identification.

PRODUCT NAME : TOLCIDE®PS75
Use : Biocides.
(For further information, refer to the product technical data sheet).

SUPPLIER : Manufacturer :
Name : Rhodia Consumer Specialties Limited
Address : P.O Box 9837
Oldbury
West Midlands
B69 4WD, UK

Telephone number : 0044 121 541 3717 (UK: 0121 541 3717).
Telefax number : 0044 121 541 3853 (UK: 0121 541 3853).

MANUFACTURING SITE
Factory : Oldbury.
Address : P.O. Box 80.
Trinity Street.
Oldbury.
West Midlands.
B69 4LN. UK.

Telephone number : 0044 121 552 3333 (UK: 0121 552 3333).
Telefax number : 0044 121 541 3235 (UK: 0121 541 3235).

**EMERGENCY TELEPHONE
NUMBER : 00 44 121 552 6805 (UK: 0121 552 6805)**

2 Composition / information on ingredients

>> SUBSTANCE

Common chemical name : TETRAKIS(HYDROXYMETHYL)PHOSPHONIUM SULPHATE
Synonyms : THPS.
Further data : Contains approx 25% water.
CAS number : 55566-30-8.

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3 Hazards identification

MOST IMPORTANT HAZARDS

Adverse human health effects

- : Harmful if swallowed.
- Risk of serious damage to eyes.
- May cause sensitization by skin contact.
- Possible risk of harm to the unborn child.

Main symptoms

- : Lachrymatory effect.

Further data

- : Possible damage to liver following repeated or prolonged exposure by ingestion.

Environmental effects

- : Very toxic to aquatic organisms.

Physical and chemical hazards

- Fire or explosion

- : NO particular fire or explosion hazard.

Classification/Specific hazards

- : According to EC regulations, this product is classified as:
 - HARMFUL.
 - DANGEROUS FOR THE ENVIRONMENT.
-

4 First-aid measures

Inhalation

- : Move the affected person away from the contaminated area.
- Make the person sit down and rest.
- If the person feels unwell : Seek medical help.

Skin contact

- : Wash with soap and water.
- Remove all contaminated clothing and footwear.
- Seek medical advice if necessary.

Eye contact

- : IMMEDIATELY rinse with plenty of water for a prolonged period, (at least 15 minutes) whilst keeping the eyes wide open.
- Consult an eye specialist immediately.

Ingestion

- : Rinse mouth out with water.
- Place the affected person in a reclining position and make him/her rest.
- Call a doctor immediately, even if there are no immediate symptoms.

Further information

- : Keep under observation, even if there are no immediate symptoms.
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5 Fire - fighting measures

Extinguishing media

- Suitable : All extinguishing agents can be used (water, foam, powders, carbon dioxide, sand ...).
 - Not suitable : None. If there is a fire close by, use suitable extinguishing agents.
 - Specific hazards : Toxic gases or vapours are released.
 - Protection of fire-fighters : Self-contained breathing apparatus.
Complete protective clothing.
-

6 Accidental release measures

Personal precautions

- : Avoid contact with skin and eyes.
If spillage occurs on the public highway, indicate the danger and notify the authorities (police, fire brigade).
- full protective clothing and equipment.
For further information refer to section 8 "Exposure-controls/personal protection".

Environmental precautions

- : Prevent the product from spreading into the environment.
Contain the spilled material by bunding.

Methods for cleaning up

- Recovery : Recover as much of the product as possible. Absorb the product onto porous material. Transfer the product into a spare container: - suitably labelled. Then take the emergency containers to an area reserved for subsequent recycling or disposal.
 - Neutralization : Absorb spillage with:
 - diatomaceous earth.
 - sand or inert absorbent.
 - Cleaning/Decontamination : Wash non-recoverable remainder with large amounts of water. Recover the cleaning water for subsequent disposal.
 - Disposal : Place in an appropriate container and dispose of the contaminated material at a licensed site.
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7 Handling and storage

HANDLING

- | | | |
|----------------------|---|---|
| Technical measures | : | Ventilation. |
| Measures | : | Work in a well-ventilated area.
Avoid forming aerosols. Avoid the formation of mists in the atmosphere.
Do NOT handle without gloves. |
| Safe handling advice | : | Handle and use in accordance with good occupational hygiene and safety practice.
Do not mix with incompatible materials (See list section 10). |

STORAGE

- | | | |
|-----------------------|---|---|
| Technical measures | : | Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. |
| Storage conditions | : | |
| - Recommended | : | Store:
- in a cool, dry area. |
| Incompatible products | : | Strong reducing agents.
Strong oxidizing agents.
Strong acids.
Strong bases |
| Packaging | : | - Polyethylene or polypropylene drums. (high density) |
| Packaging materials | : | |
| - Recommended | : | Plastic materials (polyethylene, polypropylene). (high density) |
-

8 Exposure controls / personal protection

- | | | |
|-------------------------------|---|--|
| Engineering measures | : | No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety. |
| Control parameters | : | |
| Occupational exposure limits | : | |
| - Limits (UK) | : | No specific limits. |
| Personal protective equipment | : | |
| - Respiratory protection | : | If mist is formed: Respiratory protective device with a particle filter. |
| - Hand protection | : | Butadiene nitrile rubber gloves. |
| - Eye protection | : | Goggles and a face shield. |
| - Skin and body protection | : | Protective clothing.
Safety foot-wear. |
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9 Physical and chemical properties

APPEARANCE

- Physical state	: Liquid.
- Colour	: colourless to pale yellow.
Odour	: characteristic.
pH	: 3 - 6
Specific temperatures	
- Freezing	: <-20°C.
- Boiling	: 108.5°C. (Normal pressure : 1013 hPa).
Flammability characteristics	
- Flash point	: Not applicable.
Oxidizing properties	: Not applicable
Vapour pressure	: <0.0000026 hPa, at 25°C. (Dry product).
Specific gravity	: 1370 - 1410 kg/m ³ , at 20°C.
Solubility	
- in water	: Miscible (in all proportions).
- in organic solvents	: Soluble in: - methanol. - n-methyl pyrrolidone. - isopropanol. Insoluble in: - acetone - tetrahydrofuran.
Octanol/water partition coefficient	: -9.8 (log POW). (evaluation by structure-activity relationship)

10 Stability and reactivity.

Stability	: Stable under normal conditions of use.
Hazardous reactions	
- Conditions to avoid	: Decomposes:above 160°C.
- Materials to avoid	: - strong bases. - strong reducing agents. - strong acids. - strong oxidizing agents.
- Hazardous decomposition products	: (Sulphur oxides).(Phosphorus oxides).(Carbon oxides (CO + CO ₂)).(Phosphine)(Hydrogen).

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11 Toxicological information

Acute toxicity

- : LC 50 inhalation (Rat) / 4 h : 5.55 mg/l. for males and females
- LD 50 skin (Rat) : > 2000 mg/kg. for males and females
- LD 50 oral (Rat): 575 mg/kg. for males and females
- Harmful if swallowed.

Acute symptoms

- : Waterying of the eyes.

Local effects

- : NOT considered to be : Irritating to the respiratory system.
- According to OECD method 404 : Not classified as irritating to skin
- According to OECD method 405 : Extremely irritating to rabbits on ocular application.
- Risk of serious damage to eyes.

Sensitisation

- : May cause sensitization on contact with skin.

Repeated dose toxicity

- : Toxicity for repeated doses (90 days) - oral/Rat.
- for males and females
- Hepatotoxic effects.
- No observed effect level (NOEL) : 1 mg/kg/day

Specific effects

- Carcinogenicity

- : Oral toxicity tests on rats and mice did not reveal any carcinogenic potential. (Published data).

- Mutagenicity

- : Ames test. Negative. (with or without metabolic activation).(S. typhimurium)
- Chromosomal aberrations : Mammalian cells(CHO) In vitro(with or without metabolic activation). Positive.
- In vitro UDS test (Rat) Negative.
- Rodent dominant Lethal test (Rat) In vivo Negative.
- Mouse lymphoma test/TK. (with or without metabolic activation).Positive.
- In vivo micronucleus test. (Mouse) Negative.

Product is not considered to be genotoxic

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- Reproductive toxicity	:	Fertility study (2 generations)(Rat) no impairment of fertility has been observed on ingestion Developmental toxicity study: on ingestion (Rat) NOEL, maternal toxicity : 15 mg/kg/day NOEL, foetal toxicity : 30 mg/kg/day Developmental toxicity study: on ingestion (Rabbit) NOEL, maternal toxicity : 18 mg/kg/day NOEL, foetal toxicity : 18 mg/kg/day According to a new evaluation of the existing data, the possibility that the product may have foetotoxic properties can not be excluded. Possible risk of harm to the unborn child.
- Neurotoxicity	:	Screening biochemistry test kit for cholinesterase activity inhibition The product does not induce inhibition

12 Ecological information

MOBILITY

Adsorption/desorption	:	Product readily filters into the soil.
Expected behaviour of the product	:	Ultimate destination of the product : WATER.

DEGRADABILITY

Abiotic degradation

- Other physico-chemical reactions	:	Product is easily oxidizable in aqueous media in dilute solutions.
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BIODEGRADABILITY

- Ultimate aerobic biodegradability	:	Simulation study : 70% biodegradation after 21 days. (US EPA FIFRA, Subdivision N, § 162-4) Readily biodegradable.
- Anaerobic biodegradation.	:	Simulation study : 60 % biodegradation after 30 days. (US EPA FIFRA, Subdivision N, § 162-3)

Persistence	:	Product is not persistent.
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BIOACCUMULATION

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Octanol/water partition coefficient : Refer to § 9 for actual figures.
Not potentially bioaccumulable.

ECOTOXICITY

Effects on the aquatic environment : LC 50 (Fish: Onchorhynchus mykiss) / 96h: 119 mg/l.
LC 50 (Fish: Lepomis macrochirus) / 96h: 93 mg/l.
EC 50 (Daphnia: Daphnia magna)/48 h: 19.4 mg/l.
EC 50 (Fresh water algae: Selenastrum capricornutum) / 96 h :
0.20 mg/l.
EC 50 (Bacteria : Activated sludge) / 3 hr(s) : 24 mg/l

13 Disposal considerations

WASTE FROM RESIDUES

Prohibition : Do NOT discharge waste into drains.
Destruction/Disposal : Dispose of in accordance with relevant local regulations.
Dispose of this product as hazardous waste. Incinerate at a
licensed installation.

CONTAMINATED PACKAGING

Decontamination/cleaning : Take preliminary precautions based on the dangerous properties
of the product.
Empty the packaging completely prior to disposal.
Destruction/Disposal : Depending on local facilities, recycle or incinerate the packaging
at an authorised site.
NOTE : The user's attention is drawn to the possible existence of local
regulations regarding disposal.

14 Transport information

INTERNATIONAL REGULATIONS

Land

- Rail/road (RID/ADR) : Class:9.
Packaging group: III.
Hazard identification number: 90.
UN number: 3082.
Labelling: 9.

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Sea (IMO/IMDG)	: Class: 9. Packaging group: III. UN Number: 3082. Labelling: 9. Marine pollutant: NO. Description: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Aqueous Solution of Tetrakis(hydroxymethyl)phosphonium sulphate).
Air (ICAO-IATA)	: Class: 9. Packaging group: III. UN number: 3082. Labelling: 9. Description: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Aqueous solution of Tetrakis(hydroxymethyl)phosphonium sulphate). Passenger aircraft: Packing instruction: 914 Quantity : No Limit. Cargo aircraft : Packing instruction: 914 Quantity : No Limit.
OTHER REGULATIONS	
- United Kingdom: Rail/road	: Substance identification number: 3082. Classification for conveyance: 9. Packing group: III. Emergency action code: 2X.

15 Regulatory information

LABELLING

EC regulations	: Mandatory labelling (self-classification) of hazardous substances: Applicable.
- Classifications/Symbols	: - HARMFUL (Xn) - DANGEROUS FOR THE ENVIRONMENT (N).
- R phrases	: R 22: Harmful if swallowed. R 41: Risk of serious damage to eyes. R 43: May cause sensitization by skin contact. R 63: Possible risk of harm to the unborn child. R 50: Very toxic to aquatic organisms.
- S phrases	: S 24: Avoid contact with skin. S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 36/37/39: Wear suitable protective clothing, gloves and eye/face protection. S 53: Avoid exposure - obtain special instructions before use. S 61: Avoid release to the environment. Refer to special instructions/Safety data sheet.

>>Further regulations

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United Kingdom	:	Handle in accordance with relevant British legislation: Chemical Hazard Information and Packaging for Supply Regulations Control of Substances Hazardous to Health Regulations Environmental Protection Act Collection and Disposal of Waste Regulations Carriage of Dangerous Goods by Road Regulations Carriage of Dangerous Goods by Rail Regulations Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labelling) and use of Transport Pressure Receptacles Regulations
NOTE	:	The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the Safety Data Sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16 Other information

Further product information

All data quoted in this SDS is owned by Rhodia unless otherwise indicated

Registration numbers

: EINECS N°: 259-709-0

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfil his obligations regarding the use of hazardous products. This information is not exhaustive. This does not exonerate the user from ensuring that legal obligations, other than those mentioned, relating to the use and storage of the product, do not exist. This is solely his responsibility.