

POCH Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH). Creation date / last update: 2002-10-15 / 2008-09-15

1. Identification of the substance/preparation and of the company/undertaking

TETRAHYDROFURAN

Catalogue Numbers: *pure-278200417; pure p. a.-278200118; for HPLC-278200157; for spectroscopy-278200837; for DNA synthesis and peptides-278200698; for DNA synthesis and peptides -stab. BHT-278202699; t-M0000041;*

Use of the substance / preparation: for analysis, for synthesis, for chromatography solvent

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2. Hazard identification

Highly flammable. May form explosive peroxides. Irritating to eyes and respiratory system.

3. Composition/information on ingredients

Synonyms: *1,4-oxidobutane; tetramethylene oxide; furan-tetrahydride*

CAS-No.: 109-99-9

Molecular mass: 72.11

Molecular formula: C_4H_8O

WE Number: 203-726-8

EC-Index No.: 603-025-00-0

4. First aid measures

After eye contact: *rinse out with plenty of water with the eyelid held wide open. If it necessary, call in ophtalmologist.*

After skin contact: *wash off with plenty of water. Take off contaminated clothing.*

After swallowing: *make victim drink plenty of water. Induce vomiting. Summon doctor.*

After inhalation: *fresh air*

5. Fire-fighting measures

Suitable extinguishing media: *CO₂, foam, powder, water*

Special risk: *combustible. Vapours heavier than air. Formation of explosible mixtures possible with air. Keep away from sources of fire.*

Special protective equipment for fire fighting:

Other information: *take measure to prevent electrostatic charging*

Prevent fire-fighting water from entering surface water or groundwater. Cool container with spray water from a safe distance.

Contain escaping vapours with water.

6. Accidental release measures

Do not inhale vapours/aerosols. Take up with liquid- absorbent material. Forward for disposal. Clean up affected area. Do not allow to enter sewerage system (risk of explosion).

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7. Handling and storage

Handling: *Use with adequate ventilation. Use of the basic principles of Industrial Hygiene. Use according to good industry practice. Work under hood. Do not inhale substance. Do not empty into sewerage system. Use protective equipment according to p.8. Avoid skin contact. Protect against electrostatic charges. Keep away from source of ignition.*

Storage: *tightly closed. Protect from light. Dry, well-ventilated place. Keep away from sources of ignition and heat. At +15 to + 25 deg C.*

8. Exposure controls/personal protection

Specific control parameter: *max. workplace conc.: 150 mg/m³; peak limit: 300 mg/m³*

Provide exhaust ventilation. Ensure the eye wash station and safety showers. Protective equipment should be selected for the working place, depending on concentration and quantity of the hazardous product handled. The resistance of the protective clothing to chemicals should be ascertained with respective supplier.

Personal protective equipment:

respiratory protection: *required when vapours/aerosols are generated - gas mask with specific absorber.*

eye protection: *required - safety goggles.*

hand protection: *required - protective clothing.*

body protection: *required - protective clothing.*

industrial hygiene: *immediately change contaminated clothing. Apply skin - protective barrier cream. Wash hands and face after working with substance.*

9. Physical and chemical properties

Form: *liquid*

Colour: *colourless*

Odour: *ether-like*

pH value: *(200 g/l H₂O, 20°C): 7 - 8*

Melting point: *-108°C*

Boiling point: *66°C*

Autoignition temperature: *215°C*

Flash point: *-21,5°C*

Explosion limit:

lower: *1,5 Vol%*

upper: *12,4 Vol%*

dynamic viscosity: *(20°C): 0,48 mPa*s*

kinematical viscosity:

Vapour pressure: *173 hPa (20°C)*

Density: *0,89 g/cm³ (20°C)*

Bulk density: *not applicable*

Solubility:

in water: *soluble*

in organic solvents: *not available*

log P(w/o): *0,45*

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10. Stability and reactivity

Conditions to be avoided: *high temperature, fire source*

Substances to be avoided: *strong oxidizing agents, alkali hydroxides, air (oxygen), hydrides*

Hazardous decomposition products: *peroxi compounds*

Other information: *Stabilizer: 2,6-di-tert-butyl-4-methylphenol. light- sensitive, sensitive to air. Unsuitable working materials: various plastics. Explosible with air in a vaporous/gaseous state.*

11. Toxicological information

Toxicological information: *LD50: (oral, rat): 1 650 mg/kg. LC50(inhalation, rat): 53,9 mg/l/4h.*

Other information: *after eye contact: irritation. After inhalation: headache, narcosis. After skin contact: irritation.*

12. Ecological information

Biodegradation: 39%/28d. Log P(w/o): 0,45. No bioaccumulation is to be expected. Bioconcentration factor: 1. Fish: P. promelas LC50: 2160 mg/l/96h. Daphnia magna EC50: 382 mg/l/24h. Algea: Sc. quadricanda IC5: 3700 mg/l/8d. Bacteria Ps. putida EC5: 580 mg/l/16h. M. aeruginosa EC5: 225 mg/l/8d. Toxic effect for fish: LC50: 2 820 mg/l Do not allow to enter waters, waste water or soil!

13. Disposal considerations

POCH product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system. Handle contaminated packing in the same way as the substrate itself. Always contact a permitted waste disposal to assure compliance with all current local, state and federal regulations.

14. Transport information

ADR Class and package group: *3,II*

UN Number: *2056*

Name (acc. to UN): *tetrahydrofuran*

15. Regulatory information

Labelling according to EC Directives.

Symbol: F, Xi; Flammable. Irritant.

R-phrases: 11-19-36/37; Highly flammable. May form explosive peroxides. Irritating to eyes and respiratory system.

S-phrases: 16-29-33; Keep away from sources of ignition - No smoking. Do not empty into drains. Take precautionary measures against static discharges.

EC label.

16. Other information

Reason for alteration: general update.

Informations contained in this SDS while accurate to the best knowledge