

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006
(amended by Regulation (EU) 2015/830)

Tetrachloroethane-d2

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name	Tetrachloroethane-d2
CAS-No.	33685-54-0
EC-No.	251-634-1
Product code	None.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture	Solvent for NMR spectroscopy
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1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification	Zeochem AG, www.zeochem.ch Joweid 5, 8630 Rüti, Schweiz Tel.: +41 44 922 93 93 E-Mail: info@zeochem.ch
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1.4. Emergency telephone number	Tox-Zentrum Zürich : 145 / +41 44 251 51 51 [24h/7d]
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Issuing date	05.10.2018
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Version	GHS 4 (Previous versions: GHS 3)
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SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008	Acute toxicity, inhal., Vapours, Cat. 1, H330 Acute toxicity, dermal, Cat. 1, H310 Hazardous to the aquatic environment, chronic, Cat. 2, H411
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Additional information	For the full text of the phrases mentioned in this Section, see
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2.2. Label elements**Signal Word**

Danger

Hazard Statements

H310+H330: Fatal in contact with skin or if inhaled.

H411: Toxic to aquatic life with long lasting effects.

Precautionary statements

P260g: Do not breathe gas.

P262: Do not get in eyes, on skin, or on clothing.

P264b: Wash face, hands and any exposed skin thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

P284: Wear respiratory protection.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310: Immediately call a POISON CENTER or doctor/physician.

P320: Specific treatment is urgent (see supplemental first aid instructions on this label).

P361: Take off immediately all contaminated clothing.

P391: Collect spillage.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P501: Dispose of contents/ container to an approved waste disposal plant.

Supplemental information

None.

Product identifier

Tetrachloroethane-d2, CAS-No. 33685-54-0, EC-No. 251-634-1

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients
3.1. Substances

Components		Product identifier
Tetrachloroethane-d2	> 90%	CAS-No.: 33685-54-0 EC-No.: 251-634-1

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities

None known.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move to fresh air. Consult a physician after significant exposure.
Skin contact	Wash off immediately with soap and plenty of water.
Eye contact	If eye irritation persists, consult a specialist. Rinse thoroughly with plenty of water, also under the eyelids.
Ingestion	Immediately give plenty of water (if possible charcoal slurry). Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed None known.

4.3. Indication of any immediate medical attention and special treatment needed None known.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use dry chemical, CO2, water spray or alcohol foam.
Extinguishing media which must not be used for safety reasons	High volume water jet.

5.2. Special hazards arising from the substance or mixture The product is not flammable.

5.3. Advice for firefighters

Special protective equipment for firefighters	Standard procedure for chemical fires.
Specific methods	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel	Use personal protective equipment.
Advice for emergency responders	Handle in accordance with good industrial hygiene and safety practice.

6.2. Environmental precautions	Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
6.3. Methods and material for containment and cleaning up	After cleaning, flush away traces with water. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Wear personal protective equipment. Handle and open container with care. Ingestion, exposure to skin and eyes and inhalation of any generated vapours should be avoided.
7.2. Conditions for safe storage, including any incompatibilities	Store at room temperature in the original container. Keep container tightly closed in a dry and well-ventilated place. Store in a place accessible by authorized persons only.
7.3. Specific end use(s)	No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)	MAK (Maximale Arbeitsplatzkonzentration): 1 ppm.
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8.2. Exposure controls

Appropriate engineering controls	Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection. Handle in accordance with good industrial hygiene and safety practice. Contaminated work clothing should not be allowed out of the workplace.
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Personal protection equipment

<i>Respiratory protection</i>	In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. In case of insufficient ventilation wear suitable respiratory equipment. Respirator with Gas filter DIN 3181-A3 filter.
<i>Hand protection</i>	Gloves made of VITON.
<i>Eye protection</i>	Safety glasses with side-shields conforming to EN166. Eye wash bottle with pure water.
<i>Skin and body protection</i>	Wear as appropriate: Impervious clothing.
<i>Thermal hazards</i>	No special measures required.

Environmental exposure controls	No special measures required.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Phenolic.
Odour Threshold	Not determined.
pH:	n.a.
Melting point/range:	-42.5°C
Boiling point/range:	146°C
Flash point:	n.a.
Evaporation Rate:	Not determined.
Flammability:	Not determined.
Explosion limits:	Not determined.
Vapour pressure:	6.4 mbar (20°C)
Vapor density:	5.8
Relative density:	1.6 g/ml
Water solubility:	2.9 g/l (20°C)
Partition coefficient (n-octanol/water):	2.39
Autoignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Viscosity:	Not determined.
Explosive properties:	not hazardous
Oxidising properties:	None

9.2. Other information

General Product Characteristics No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	No information available.
10.2. Chemical stability	No decomposition if used as directed.
10.3. Possibility of hazardous reactions	No information available.
10.4. Conditions to avoid	Heating in air. Heating can release hazardous gases.
10.5. Incompatible materials	Alkaline metals. Strong bases.
10.6. Hazardous decomposition products	None under normal use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	LD50/oral/rat = 200 mg/kg.
Skin corrosion/irritation	No data available.
Serious eye damage/eye irritation	No data available.
Respiratory / Skin Sensitisation	None.
Carcinogenicity	Possible carcinogen.
Germ cell mutagenicity	Possible mutagen.
Reproductive toxicity	Fertility classification not possible from current data.
Specific target organ toxicity (single exposure)	No data available.
Specific target organ toxicity (repeated exposure)	No data available.
Aspiration hazard	No data available.
Human experience	No data is available on the product itself.

SECTION 12: Ecological information

12.1. Toxicity	LC50/96h/fish = 20 mg/l. LC50/48h/daphnia = 57 mg/l. EC50/72h/algae = 77 mg/l. Waste water from subsequent processing should be given appropriate treatment in line with local regulations.
12.2. Persistence and degradability	Not readily biodegradable.
12.3. Bioaccumulative potential	No data available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	No information available.
12.6. Other adverse effects	No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Dispose of as hazardous waste in compliance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of wastes in an approved waste disposal facility.
Contaminated packaging	Empty containers can be landfilled, when in compliance with local regulations.

SECTION 14: Transport information

ADR/RID	UN 1702. Proper shipping name: 1,1,2,2-TETRACHLOROETHANE. Class 6.1. Packing group II. ADR/RID-Labels 6.1+ENV. Environmentally hazardous: Yes Classification code T1. Hazard identification no. 60. Limited quantity 100 ml. Excepted quantity E4. Tunnel restriction code D/E
IMDG	UN 1702. Proper shipping name: 1,1,2,2-TETRACHLOROETHANE. Class 6.1. Packing group II. IMDG-Labels 6.1+ENV. Limited quantity 100 ml. Excepted quantity E4. EmS F-A, S-A. Marine pollutant: Yes.
IATA	UN 1702. Proper shipping name: 1,1,2,2-Tetrachloroethane. Class 6.1. Packing group II. IATA label 6.1+ENV. Packing instruction (passenger aircraft): 654 (5 L). Packing instruction (LQ): Y641 (1 L). Packing instruction (cargo aircraft): 661 (60 L).
Inland navigation ADN	UN 1702. Proper shipping name: 1,1,2,2-TETRACHLOROETHANE. Class 6.1. Packing group II. ADN labels 6.1+ENV. Classification code T1. Limited quantity 100 ml. Excepted quantity E4.
Further Information	None.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulatory Information The product is classified and labelled according to Regulation (EC) No. 1272/2008.

15.2. Chemical safety assessment Not required.

SECTION 16: Other information

Key or legend to abbreviations and acronyms CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)
MAK: Occupational exposure limit.

Full text of phrases referred to under sections 2 and 3 H310: Fatal in contact with skin.
H330: Fatal if inhaled.
H411: Toxic to aquatic life with long lasting effects.

Further information Take notice of the directions of use on the label.

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release. It is not to be considered a warranty or quality specification.