

# SAFETY DATA SHEET

according to the Global Harmonized System

## Tetrachloroethane-d2

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

Use of the Substance/Preparation	Solvent for NMR spectroscopy
Company/Undertaking Identification	ARMAR AG Müligasse 7 CH-5312 Döttingen Schweiz Tel. +41 56 245 2600 <a href="mailto:admin@armar.ch">admin@armar.ch</a>
Emergency telephone number	Tox-Zentrum Zürich : 145 / +41 44 251 51 51 [24h/7d]
Revision Date	24.03.2010
Version	GHS 1

### 2. Hazards identification



DANGER!

Acute toxicity, dermal, Cat. 1  
Acute toxicity, inhal., Vapours, Cat. 1  
Hazardous to the aquatic environment, chronic, Cat. 2

### 3. Composition/information on ingredients

Components		Health hazards	CAS	REACH No.
Tetrachloroethane-d2	> 90%	TAInV1 TADe1 NChr2	33685-54-0	

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## **4. First aid measures**

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

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## **5. Fire-fighting measures**

<b>Suitable extinguishing media</b>	Use dry chemical, CO <sub>2</sub> , water spray or alcohol foam.
<b>Extinguishing media which must not be used for safety reasons</b>	High volume water jet.
<b>Specific hazards</b>	The product is not flammable.
<b>Special protective equipment for firefighters</b>	Standard procedure for chemical fires.
<b>Specific methods</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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## **6. Accidental release measures**

<b>Personal precautions</b>	Use personal protective equipment.
<b>Environmental precautions</b>	Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
<b>Methods for cleaning up</b>	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.

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## **7. Handling and storage**

<b>Handling</b>	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.
<b>Storage</b>	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.

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## **8. Exposure controls / personal protection**

<b>Exposure limit(s)</b>	MAK (Maximale Arbeitsplatzkonzentration): 1 ppm.
<b>Occupational exposure controls</b>	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.
<b>Personal protection equipment</b>	
<b>Respiratory protection</b>	In the 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.
<b>Hand protection</b>	Gloves made of VITON.
<b>Eye protection</b>	Safety glasses with side-shields conforming to EN 166. Eye wash bottle with pure water.
<b>Skin and body protection</b>	Wear as appropriate: Impervious clothing.

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## **9. Physical and chemical properties**

<b>Form</b>	Liquid.
<b>Colour</b>	Colourless.
<b>Odour</b>	Solvent.
<b>Physical and chemical properties</b>	pH: not applicable. Flash point: does not flash. Water solubility: 3 g/l (20 °C). Fat solubility: completely soluble Melting point/range: -36 °C. Boiling point/range: 146 °C. Density: 1.6 g/ml. Vapour pressure: 660 Pa (20 °C).

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## **10. Stability and reactivity**

<b>Stability</b>	No decomposition if used as directed.
<b>Conditions to avoid</b>	Heating in air. Heating can release hazardous gases.
<b>Materials to avoid</b>	Alkaline metals. Strong bases.
<b>Hazardous decomposition products</b>	None under normal use.

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## **11. Toxicological information**

<b>Acute toxicity</b>	LD50/oral/rat = 800 mg/kg.
<b>Local effects</b>	Harmful if swallowed. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Very toxic by inhalation and in contact with skin.
<b>Long term toxicity</b>	Chronic exposure may cause permanent damage of health. Symptoms may be delayed.
<b>Sensitization</b>	None.
<b>Human experience</b>	No data is available on the product itself.
<b>Further information</b>	Use of alcoholic beverages may enhance toxic effects.

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## **12. Ecological information**

<b>Ecotoxicity</b>	Waste water from subsequent processing should be given appropriate treatment in line with local regulations.
<b>Persistence / degradability</b>	Not readily biodegradable.

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## **13. Disposal considerations**

<b>Waste from residues / unused products</b>	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.
<b>Contaminated packaging</b>	Empty containers can be landfilled, when in compliance with local regulations.

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## 14. Transport information

<b>ADR/RID</b>	Proper shipping name 1,1,2,2-TETRACHLOROETHANE UN No 1702. Class 6.1. Packing group II. ADR/RID-Labels 6.1+ENV. Classification code T1. Risk No. 60. Limited quantity LQ17. Tunnel code D/E
<b>IMO</b>	Proper shipping name 1,1,2,2-Tetrachloroethane UN No 1702. Class 6.1. Packing group II. ADR/RID-Labels 6.1+ENV. Limited quantity 100ml. EmS F-A, S-A.
<b>ICAO</b>	Proper shipping name 1,1,2,2-Tetrachloroethane UN No 1702. Class 6.1. Packing group II. Packing instruction (passenger aircraft): 610 (5 L). Packing instruction (LQ): Y610 (1 L). Packing instruction (cargo aircraft): 612 (60 L).

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## 15. Regulatory information

<b>GHS-Classification</b>	
<b>Signal Word</b>	DANGER!
<b>Hazard Statements</b>	Fatal in contact with skin. Fatal if inhaled. Toxic to aquatic life with long lasting effects.
<b>Precautionary Statements</b>	Do not breathe gas. Do not get in eyes, on skin, or on clothing. Wash face, hands and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection. IF ON SKIN: Gently wash with plenty of soap and water. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Specific treatment is urgent (see supplemental first aid instructions on this label). Remove/Take off immediately all contaminated clothing. Collect spillage. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container to an approved waste disposal plant.
<b>GHS product identifier</b>	Tetrachloroethane-d2, CAS-No. 33685-54-0, EC-No. 251-634-1

<b>EC-Symbol(s)</b>	T+ - Very toxic. N - Dangerous for the environment.
<b>R-phrases(s)</b>	R26/27: Very toxic by inhalation and in contact with skin. R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>S-phrases(s)</b>	S38: In case of insufficient ventilation, wear suitable respiratory equipment. S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S61: Avoid release to the environment. Refer to special instructions / safety data sheets.
<b>Regulatory Information</b>	The product is classified and labelled according to Regulation (EC) No. 1272/2008 (GHS/CLP). The product is classified and labelled in accordance with Directive 1999/45/EC.

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## **16. Other information**

<b>Recommended use</b>	Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use.
<b>GHS-Classification</b>	TADe1: Acute toxicity, dermal, Cat. 1 TAlnV1: Acute toxicity, inhal., Vapours, Cat. 1 NChr2: Hazardous to the aquatic environment, chronic, Cat. 2
<b>Further information</b>	Take notice of the directions of use on the label.
<b>Disclaimer</b>	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.