

SAFETY DATA SHEET

according to the Global Harmonized System

Chlorobenzene-d5

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 admin@armar.ch
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



WARNING!

Acute toxicity, inhal., Vapours, Cat. 4
Flammable liquids, Cat. 3
Hazardous to the aquatic environment, chronic, Cat. 2

3. Composition/information on ingredients

Components	Health hazards	CAS	REACH No.
Chlorobenzene-d5	TAInV4 NChr2 Fliq3	3114-55-4	

4. First aid measures

Inhalation	Move to fresh air. Consult a physician after significant exposure.
Skin contact	Wash with water and soap as a precaution.
Eye contact	Flush eyes with water as a precaution. If eye irritation persists, consult a specialist.
Ingestion	If conscious, drink plenty of water. Do not induce vomiting. Consult a physician if necessary.

5. Fire-fighting measures

Suitable extinguishing media	Use dry chemical, CO ₂ , water spray or alcohol foam.
Extinguishing media which must not be used for safety reasons	High volume water jet.
Specific hazards	Solvents may produce excessive pressure under fire-conditions. Sealed containers may rupture and ignite. Cool containers / tanks with water spray. Burning produces irritant fumes.
Special protective equipment for firefighters	Standard procedure for chemical fires.
Specific methods	Do not use a solid water stream as it may scatter and spread fire.

6. Accidental release measures

Environmental precautions	Do not flush into surface water or sanitary sewer system.
Methods for cleaning up	Clean up promptly by sweeping or vacuum. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. Handling and storage

Handling	Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.
Storage	Store at room temperature in the original container.

8. Exposure controls / personal protection

Exposure limit(s)	MAK (Maximale Arbeitsplatzkonzentration): 10 ppm.
Occupational exposure controls	Avoid contact with skin, eyes and clothing.
Personal protection equipment	
Respiratory protection	In the case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
Hand protection	Gloves made of VITON.
Eye protection	Safety glasses.
Skin and body protection	Wear as appropriate: Solvent-resistant apron and boots.

9. Physical and chemical properties

Form	Liquid.
Colour	Colourless.
Odour	Aromatic.
Physical and chemical properties	Flash point: 23 °C. Water solubility: 0.49 g/l. Fat solubility: completely soluble Melting point/range: -45 °C. Boiling point/range: 130 °C. Density: 1.16 g/ml. Vapour pressure: 1170 Pa (20 °C). Explosion limits (lower): 1.3 %. Explosion limits (upper): 11 %.

10. Stability and reactivity

Stability	No decomposition if used as directed.
Conditions to avoid	Heating in air.
Materials to avoid	Incompatible with strong bases and oxidizing agents.
Hazardous decomposition products	None under normal use.

11. Toxicological information

Acute toxicity	LD50/oral/rat = 2910 mg/kg.
Local effects	Eye irritation. Harmful by inhalation. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Harmful if swallowed.
Long term toxicity	Chronic exposure may cause permanent damage of health.
Sensitization	None.
Human experience	No data is available on the product itself.
Further information	Health injuries are not known or expected under normal use.

12. Ecological information

Ecotoxicity	EC50/48h/daphnia = 100 mg/l. LC50/96h/fish = 1 mg/l.
Persistence / degradability	Not readily biodegradable.
Bioaccumulative potential	Accumulation in aquatic organisms is unlikely.

13. Disposal considerations

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.
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14. Transport information

ADR/RID	Proper shipping name CHLOROBENZENE UN No 1134. Class 3. Packing group III. ADR/RID-Labels 3+ENV. Classification code F1. Risk No. 30. Limited quantity LQ7. Tunnel code D/E
IMO	Proper shipping name Chlorobenzene UN No 1134. Class 3. Packing group III. ADR/RID-Labels 3+ENV. Limited quantity 5 L. EmS F-E, S-D.
ICAO	Proper shipping name Chlorobenzene UN No 1134. Class 3. Packing group III. Packing instruction (passenger aircraft): 309 (60 L). Packing instruction (LQ): Y309 (10 L). Packing instruction (cargo aircraft): 310 (220 L).

15. Regulatory information

GHS-Classification	
Signal Word	WARNING!
Hazard Statements	Flammable liquid and vapour. Harmful if inhaled. Toxic to aquatic life with long lasting effects.
Precautionary Statements	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. Collect spillage.
GHS product identifier	Dispose of contents/container to an approved waste disposal plant. Chlorobenzene-d5, CAS-No. 3114-55-4, EC-No. 221-482-0

EC-Symbol(s)	Xn - Harmful. N - Dangerous for the environment.
R-phrases(s)	R10: Flammable. R20: Harmful by inhalation. R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	S24/25: Avoid contact with skin and eyes. S61: Avoid release to the environment. Refer to special instructions / safety data sheets.
Regulatory Information	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.

16. Other information

Recommended use	Solvent for NMR spectroscopy
GHS-Classification	TAInV4: Acute toxicity, inhal., Vapours, Cat. 4 NChr2: Hazardous to the aquatic environment, chronic, Cat. 2 Fliq3: Flammable liquids, Cat. 3
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.