

SAFETY DATA SHEET

according to the Global Harmonized System

Formic acid-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 admin@armar.ch
Emergency telephone number	Tox-Zentrum Zürich : 145 / +41 44 251 51 51 [24h/7d]
Revision Date	28.05.2010
Version	GHS 2

2. Hazards identification



DANGER!

Skin corrosion/irritation, Cat. 1A
Flammable liquids, Cat. 3

3. Composition/information on ingredients

Components		Health hazards	CAS	REACH No.
Formic acid-d2	> 90%	CSk1A Fliq3	920-42-3	

4. First aid measures

Inhalation	Move to fresh air.
Skin contact	Wash off immediately with plenty of water. Consult a physician for severe cases.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Protect unharmed eye.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Prevent vomiting if possible. Consult a physician for severe cases.

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.
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.

6. Accidental release measures

Environmental precautions	No special environmental precautions required.
Methods for cleaning up	Clean up promptly by sweeping or vacuum. After cleaning, flush away traces with water. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. Handling and storage

Handling	Plan first aid action before beginning work with this product. Wear personal protective equipment.
Storage	Store at room temperature in the original container.

8. Exposure controls / personal protection

Exposure limit(s)	Exposure limit(s): 5 ppm.
Occupational exposure controls	Avoid contact with skin, eyes and clothing.
Personal protection equipment	
Respiratory protection	In case of good ventilation no personal respiratory protective equipment required.
Hand protection	Gloves made of latex.
Eye protection	Safety glasses with side-shields conforming to EN 166.
Skin and body protection	Wear as appropriate: Impervious clothing.

9. Physical and chemical properties

Form	Liquid.
Colour	Colourless.
Odour	Pungent.
Physical and chemical properties	Flash point: 42 °C. Water solubility: completely soluble Melting point/range: 6 °C. Boiling point/range: 101 °C. Density: 1.27 g/ml. Vapour pressure: 4400 Pa (20 °C). Explosion limits (lower): 10 %. Explosion limits (upper): 45.5 %.

10. Stability and reactivity

Stability	No decomposition if used as directed.
Conditions to avoid	Burning produces obnoxious and toxic fumes.
Materials to avoid	Corrodes base metals.
Hazardous decomposition products	None under normal use.

11. Toxicological information

Acute toxicity	Formic Acid -D2 LD50/oral/rat = 730 mg/kg.
Local effects	Causes severe burns.
Long term toxicity	Negligible.
Sensitization	None.

12. Ecological information

Ecotoxicity	May change pH of waters. LC50/48h/golden orfe = 500 mg/l.
Persistence / degradability	Neutralization is normally necessary before waste water is discharged into water treatment plants. Biological degradability 70 %.
Bioaccumulative potential	Does not bioaccumulate.

13. Disposal considerations

Waste from residues / unused products	Taking into account local regulations the product may be disposed of as waste water after neutralisation.
Contaminated packaging	Offer rinsed packaging material to local recycling facilities.

14. Transport information

ADR/RID	Proper shipping name FORMIC ACID UN No 1779. Class 8. Packing group II. ADR/RID-Labels 8+3. Classification code C3. Risk No. 80. Limited quantity LQ22. Tunnel code D/E
IMO	Proper shipping name Formic acid UN No 1779. Class 8. Packing group II. ADR/RID-Labels 8+3. Limited quantity 1 L. EmS F-A, S-B.

ICAO	Proper shipping name Formic acid UN No 1779. Class 8. Packing group II. Packing instruction (passenger aircraft): 808 (1 L). Packing instruction (LQ): Y808 (0.5 L). Packing instruction (cargo aircraft): 812 (30 L).
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15. Regulatory information

GHS-Classification	
Signal Word	DANGER!
Hazard Statements	Flammable liquid and vapour. Causes severe skin burns and eye damage.
Precautionary Statements	Do not breathe dust/fume/gas/mist/vapours/spray. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Take precautionary measures against static discharge. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Wash skin thoroughly after handling. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Store in a well-ventilated place. Keep cool. Dispose of contents/container to an approved waste disposal plant. Keep container tightly closed.
GHS product identifier	Formic acid-d2, CAS-No. 920-42-3
EC-Symbol(s)	C - Corrosive.
R-phrases(s)	R10: Flammable. R35: Causes severe burns.
S-phrases(s)	S23: Do not breathe vapour S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
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	CSk1A: Skin corrosion/irritation, Cat. 1A 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.