

SAFETY DATA SHEET

according to the Global Harmonized System

Potassium deuterium oxide in D2O

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

Use of the Substance/Preparation	Chemical reaction medium
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]
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Version	GHS 1

2. Hazards identification



DANGER!

Skin corrosion/irritation, Cat. 1A
Acute toxicity, oral, Cat. 4
Serious eye damage/eye irritation, Cat. 1

3. Composition/information on ingredients

Components		Health hazards	CAS	REACH No.
Kaliumdeuteriumoxid	25% - 30%	TAOr4 CSk1A	24572-01-8	
Deuterium oxide	50% - 75%		7789-20-0	

4. First aid measures

Inhalation	Move to fresh air. Consult a physician after significant exposure.
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	Rinse mouth. If conscious, drink 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.
Specific hazards	The product is not flammable.
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.

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): 2 mg/m ³ .
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 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	Odorless
Physical and chemical properties	pH: > 14 . Water solubility: completely miscible

10. Stability and reactivity

Stability	No decomposition if used as directed.
Conditions to avoid	Heating in air.
Materials to avoid	Corrodes base metals.
Hazardous decomposition products	None under normal use.

11. Toxicological information

Acute toxicity	Deuterium oxide None.
Local effects	Harmful if swallowed. Causes severe burns. Extremely corrosive and destructive to tissue.
Long term toxicity	Negligible.
Sensitization	None.

12. Ecological information

Ecotoxicity	May change pH of waters. Deuterium oxide
Persistence / degradability	None. Neutralization is normally necessary before waste water is discharged into water treatment plants.
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 POTASSIUM HYDROXIDE SOLUTION UN No 1814. Class 8. Packing group II. ADR/RID-Labels 8. Classification code C5. Risk No. 80. Limited quantity LQ22. Tunnel code E
IMO	Proper shipping name Potassium hydroxide solution UN No 1814. Class 8. Packing group II. ADR/RID-Labels 8. Limited quantity 1 L. EmS F-A, S-B.
ICAO	Proper shipping name Potassium hydroxide solution UN No 1814. Class 8. Packing group II. Packing instruction (passenger aircraft): 809 (1 L). Packing instruction (LQ): Y809 (0.5 L). Packing instruction (cargo aircraft): 813 (30 L).

15. Regulatory information

GHS-Classification	
Signal Word	DANGER!
Hazard Statements	Harmful if swallowed. Causes severe skin burns and eye damage.
Precautionary Statements	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Do not breathe dust/fume/gas/mist/vapours/spray. Wash skin thoroughly after handling. 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. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Dispose of contents/container to an approved waste disposal plant. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Store locked up. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
GHS product identifier	Kaliumdeuteriumoxid, CAS-No. 24572-01-8, EC-No. 246-324-8 Deuterium oxide, CAS-No. 7789-20-0, EC-No. 232-148-9
EC-Symbol(s)	C - Corrosive.
R-phrase(s)	R22: Harmful if swallowed. R35: Causes severe burns.
S-phrase(s)	S7: Keep container tightly closed. 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). S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.
Hazardous components which must be listed on the label	Kaliumdeuteriumoxid, CAS-No. 24572-01-8, EC-No. 246-324-8
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	Chemical reaction medium. For industrial application only.
GHS-Classification	TAOr4: Acute toxicity, oral, Cat. 4 CSk1A: Skin corrosion/irritation, Cat. 1A
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.