

SAFETY DATA SHEET

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

Methanol-d4

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

Product name	Methanol-d4
CAS-No.	811-98-3
EC-No.	212-378-6
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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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. 3, H331
Acute toxicity, dermal, Cat. 3, H311
Acute toxicity, oral, Cat. 3, H301
Specific target organ toxicity (single exposure, inhalation), Cat. 1, H370
Specific target organ toxicity (single exposure, dermal), Cat. 1, H370
Specific target organ toxicity (single exposure, oral), Cat. 1, H370
Flammable liquids, Cat. 2, H225

Additional information

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

2.2. Label elements



Signal Word

Danger

Hazard Statements

H225: Highly flammable liquid and vapour.
H301+H311+H331: Toxic if swallowed, in contact with skin or if inhaled.
H370: Causes damage to organs in contact with skin.
H370: Causes damage to organs if inhaled.
H370: Causes damage to organs if swallowed.

Precautionary statements

P210b: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P243: Take precautionary measures against static discharge.
P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264b: Wash face, hands and any exposed skin thoroughly after handling.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P308+P311: IF exposed: Call a POISON CENTER or doctor/physician.
P403+P235: Store in a well-ventilated place. Keep cool.
P501: Dispose of contents/ container to an approved waste disposal plant.

Supplemental information

None.

Product identifier

Methanol-d4, CAS-No. 811-98-3, EC-No. 212-378-6

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.1. Substances

Components		Product identifier
Methanol-d4	> 90%	CAS-No.: 811-98-3 EC-No.: 212-378-6

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	Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
Ingestion	Immediately give plenty of water (if possible charcoal slurry). Consult a physician for severe cases.

4.2. Most important symptoms and effects, both acute and delayed Symptoms of poisoning may only appear several hours later. Anticipated acute effects Blurred vision.

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 Solvents may produce excessive pressure under fire-conditions. Sealed containers may rupture and ignite. Cool containers / tanks with water spray. Burning produces irritant fumes.

5.3. Advice for firefighters

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. 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 Remove all sources of ignition. Pay attention to flashback. 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 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. After cleaning, flush away traces with water.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. 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 Keep containers tightly closed in a dry, cool 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): 200 ppm.

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.

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.
<i>Hand protection</i>	Gloves made of Nitril.
<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: Solvent-resistant apron and boots. Impervious clothing.
<i>Thermal hazards</i>	No special measures required.
Environmental exposure controls	No special measures required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Alcoholic.
Odour Threshold	Not determined.
pH:	Not determined.
Melting point/range:	-98°C
Boiling point/range:	65°C
Flash point:	9°C
Evaporation Rate:	Not determined.
Flammability:	Not determined.
Explosion limits:	50 Vol% / 6 Vol%
Vapour pressure:	129 mbar/20°C
Vapor density:	1.10
Relative density:	Not determined.
Water solubility:	completely miscible
Partition coefficient (n-octanol/water):	-0.74
Autoignition temperature:	440°C
Decomposition temperature:	Not determined.
Viscosity:	Not determined.
Explosive properties:	not hazardous
Oxidising properties:	None

9.2. Other information

General Product Characteristics	No information available.
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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	Incompatible with oxidizing agents.
10.6. Hazardous decomposition products	None under normal use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	LD50/oral/rat = 5630 mg/kg. LD50/dermal/rabbit = 15800 mg/kg. LC50/inhalation/2h/rat = 83.9 mg/l.
Skin corrosion/irritation	No data available.
Serious eye damage/eye irritation	Moderate eye irritation.
Respiratory / Skin Sensitisation	None.
Carcinogenicity	Animal testing did not show any hazardous effects.
Germ cell mutagenicity	In vitro tests did not show mutagenic effects.
Reproductive toxicity	Damage to fetus unlikely if the occupational exposure limit values are not exceeded.
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	Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

SECTION 12: Ecological information

12.1. Toxicity	LC50/96h/fish >= 15000 mg/l.
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12.2. Persistence and degradability	Readily biodegradable.
12.3. Bioaccumulative potential	Does not bioaccumulate.
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. Dispose of wastes in an approved waste disposal facility.
Contaminated packaging	Offer rinsed packaging material to local recycling facilities.

SECTION 14: Transport information

ADR/RID	UN 1230. Proper shipping name: METHANOL. Class 3. Packing group II. ADR/RID-Labels 3+6.1. Classification code FT1. Hazard identification no. 336. Limited quantity 1 L. Excepted quantity E2. Tunnel restriction code D/E
IMDG	UN 1230. Proper shipping name: METHANOL. Class 3. Packing group II. IMDG-Labels 3+6.1. Limited quantity 1 L. Excepted quantity E2. EmS F-E, S-D. Marine pollutant: No.

IATA	UN 1230. Proper shipping name: Methanol. Class 3. Packing group II. IATA label 3+6.1. Packing instruction (passenger aircraft): 352 (1 L). Packing instruction (LQ): Y341 (1 L). Packing instruction (cargo aircraft): 364 (60 L).
Inland navigation ADN	UN 1230. Proper shipping name: METHANOL. Class 3. Packing group II. ADN labels 3+6.1. Classification code FT1. Limited quantity 1 L. Excepted quantity E2.
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.
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15.2. Chemical safety assessment	Not required.
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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.
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Full text of phrases referred to under sections 2 and 3	H225: Highly flammable liquid and vapour. H301: Toxic if swallowed. H311: Toxic in contact with skin. H331: Toxic if inhaled. H370: Causes damage to organs if inhaled. H370: Causes damage to organs if swallowed. H370: Causes damage to organs in contact with skin.
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Further information	Take notice of the directions of use on the label.
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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.
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