



ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name 1,2 Dimethoxyethane
 CAS No. 110-71-4
 EC No. 203-794-9
 REACH Registration No.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s) PC21 Laboratory chemicals.
 Uses Advised Against Not known.

1.3 Details of the supplier of the safety data sheet

Manufacturer
 Company Identification Rathburn Chemicals Ltd
 Address of Manufacturer 6 Caberston Road
 Walkerburn
 Peeblesshire
 Scotland
 Postal code EH43 6AU
 Telephone: 00 (44) (0) 1 896 870 651
 E-mail sales@rathburn.co.uk
 Office hours 09:00 – 17:00
 Supplier

Company Identification Rathburn Chemicals Ltd
 Address of Supplier 6 Caberston Road
 Walkerburn
 Peeblesshire
 Scotland
 Postal code EH43 6AU
 Telephone: 00 (44) (0) 1 896 870 651
 E-mail sales@rathburn.co.uk
 Office hours 09:00 – 17:00

1.4 Emergency telephone number

Emergency Phone No. 00 (44) (0) 1 896 870 651 or 00 (44) (0) 7807 520501
 Contact Roddy Stoddart.

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP) Flam. Liq. 2 :Highly flammable liquid and vapour.
 Skin Irrit. 2 :Causes skin irritation.
 Acute Tox. 4 :Harmful if inhaled.
 Repr. 1A :May damage fertility. Suspected of damaging the unborn child.

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)
 Product Name 1,2 Dimethoxyethane

Hazard Pictogram(s)



GHS02



GHS08



GHS07

Signal Word(s) Danger

Hazard Statement(s) H225: Highly flammable liquid and vapour.
 H315: Causes skin irritation.
 H332: Harmful if inhaled.
 H360Fd: May damage fertility. Suspected of damaging the unborn child.



Precautionary Statement(s)

P201: Obtain special instructions before use.
 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233: Keep container tightly closed.
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264: Wash hands and exposed skin thoroughly after handling.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352: IF ON SKIN: Wash with plenty of water.
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P308+P313: IF exposed or concerned: Get medical advice/attention.
 P332+P313: If skin irritation occurs: Get medical advice/attention.
 P370+P378: In case of fire: Use water spray, dry powder or carbon dioxide to extinguish.
 P501: Dispose of contents in accordance with local, state or national legislation.

2.3 Other hazards

None known.

2.4 Additional Information

For full text of H/P Statements see section 16.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
1,2-dimethoxyethane ethylene glycol dimethyl ether EGDME	110-71-4	203-794-9	100	Flam. Liq. 2 H225 Acute Tox. 4 H332 Repr. 1B H360FD	GHS02 GHS08 GHS07

3.2 Mixtures

Not applicable.

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation
 Skin Contact
 Eye Contact
 Ingestion

Call a POISON CENTER/doctor if you feel unwell.
 Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see Medical Advice on this label). Take off immediately all contaminated clothing. Rinse skin with water. IF exposed or concerned:
 IF exposed or concerned: Get medical advice/attention.
 IF exposed or concerned: Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns.

4.3 Indication of any immediate medical attention and special treatment needed

Specific treatment (see Medical Advice on this label). Call a POISON CENTER/doctor if you feel unwell. Treat symptomatically.

5. SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media Use water spray, dry powder or carbon dioxide to extinguish.
 Unsuitable extinguishing media Water jet spray

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. May decompose in a fire, giving off toxic and irritant vapours.

5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES



6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Ensure full personal protection (including respiratory protection) during removal of spillages.

6.2 Environmental precautions

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Absorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Containers must not be punctured or destroyed by burning, even when empty.

6.4 Reference to other sections

See Also Section 8, 13.

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting/equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep cool. Store locked up.

Storage temperature

Ambient.

Storage life

Stable under normal conditions.

Incompatible materials

None known.

7.3 Specific end use(s)

Not known.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

No Occupational Exposure Limit assigned.

8.2 Exposure controls

8.2.1. Appropriate engineering controls

Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Use with ventilation, local exhaust ventilation or breathing protection. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN166).



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN 374).



Respiratory protection

A suitable mask with filter type A (EN14387 or EN405) may be appropriate.



Thermal hazards

None known.



8.2.3. Environmental Exposure Controls Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
	Colour : Colourless
Odour	Ether-like
Odour threshold	Not known.
pH	Not known.
Melting point/freezing point	-58C
Initial boiling point and boiling range	85C
Flash Point	-2C
Evaporation rate	Not known.
Flammability (solid, gas)	Not known.
Upper/lower flammability or explosive limits	Upper 10.4% (V), Lower 1.6% (V).
Vapour pressure	Not known.
Vapour density	Not known.
Density (g/ml)	0.867
Relative density	Not known.
Solubility(ies)	Solubility (Water) : Completely soluble in water. Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not known.
Oxidising properties	Not known.

9.2 Other information

None.

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

None anticipated.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

Avoid friction, sparks, or other means of ignition.

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	Low acute toxicity
Acute toxicity - Skin Contact	Low acute toxicity
Acute toxicity - Inhalation	Harmful if inhaled.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Non-irritant
Skin sensitization data	Not classified
Respiratory sensitization data	Not classified
Germ cell mutagenicity	There is no evidence of mutagenic potential.
Carcinogenicity	No evidence of carcinogenicity.
Reproductive toxicity	May damage fertility. Suspected of damaging the unborn child.
Lactation	Not classified
STOT - single exposure	Not classified
STOT - repeated exposure	Not classified
Aspiration hazard	Not classified

**11.2 Other information**

Not known.

12. SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

12.2 Persistence and Degradation

Not known.

12.3 Bioaccumulative potential

Not known.

12.4 Mobility in soil

Not known.

12.5 Results of PBT and vPvB assessment

Not known.

12.6 Other adverse effects

Not known.

13. SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Do not allow to enter drains, sewers or watercourses. Do NOT landfill. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator. Dispose of this material and its container to hazardous or special waste collection point. Dispose at suitable refuse site.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION**14.1 UN number**

UN No. 2252

14.2 UN proper shipping name

UN proper shipping name 1,2-DIMETHOXYETHANE

14.3 Transport hazard class(es)

ADR/RID

ADR/RID Class 3

ADR Classification Code F1

Special Provisions

Limited Quantities 1 L

Excepted Quantities E2

Emergency Action Code •2YE

Mixed Packing Instructions for Packages P001 IBC02 R001

Special Packing Provisions for Packages

Mixed Packing Instructions for Packages MP19

Packing Instructions for Portable Tanks T4

Special Provisions for Portable Tanks TP1

Tank Code for Tanks LGBF

Special Provisions for Tanks

Vehicle for Tank Carriage FL

ADR Transport Category 2

Tunnel Restriction Code D/E

Special Provisions for Carriage - Packages

Special Provisions for Carriage - Bulk



Special Provisions for Carriage - Loading, Unloading and Handling	
Special Provisions for Carriage - Operation	S2 S20
ADR HIN	33
IMDG	
IMDG Class	3
Special Provisions	
Limited Quantities	1 L
Excepted Quantities	E2
Mixed Packing Instructions for Packages	P001 IBC02 R001
Special Packing Provisions for Packages	
Packing Instructions for Portable Tanks	T4
Special Provisions for Portable Tanks	TP1
IMDG EMS	F-E, S-D
Stowage and Handling	Category B
Segregation	
ICAO/IATA	
Excepted Quantities	E2
Passenger and Cargo Aircraft Limited Quantities Packing Instructions	Y341
Passenger and Cargo Aircraft Limited Quantities Max net Qty	1L
Passenger and Cargo Aircraft Packing Instructions	353
Passenger and Cargo Aircraft Max net Qty	5L
Cargo Aircraft Packing Instructions	364
Cargo Aircraft Max net Qty	60L
Special Provisions	
Emergency Response Guidebook (ERG) Code	3L
Labels	
Labels	3



14.4 Packing group

Packing group II

14.5 Environmental hazards

Environmental hazards Not classified as a Marine Pollutant.

14.6 Special precautions for user

Special precautions for user Not known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No information available

15. SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) (110-71-4)

REACH: ANNEX XIV list of substances Not listed

subject to authorisation
REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles 1,2-dimethoxyethane ethylene glycol dimethyl ether EGDME (110-71-4)

Community Rolling Action Plan (CoRAP) Not listed

Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Not listed

Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer Not listed

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Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals

Not listed

National regulations

Other

Not known.

15.2 Chemical Safety Assessment

A REACH chemical safety assessment has not been carried out.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Hazard Pictogram(s)



GHS02



GHS08



GHS07

Hazard classification

Flam. Liq. 2 : Flammable liquid, Category 2
 Skin Irrit. 2 : Skin corrosion/irritation, Category 2
 Acute Tox. 4 : Acute toxicity, Category 4
 Repr. 1B : Reproductive toxicity, Category 1B
 Repr. 1A : Reproductive toxicity, Category 1A

Hazard Statement(s)

H225: Highly flammable liquid and vapour.
 H315: Causes skin irritation.
 H332: Harmful if inhaled.
 H360FD: May damage fertility. Suspected of damaging the unborn child.
 H360Fd: May damage fertility. Suspected of damaging the unborn child.

Precautionary Statement(s)

P201: Obtain special instructions before use.
 P202: Do not handle until all safety precautions have been read and understood.
 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233: Keep container tightly closed.
 P240: Ground and bond container and receiving equipment.
 P241: Use explosion-proof electrical/ventilating/lighting/equipment.
 P242: Use non-sparking tools.
 P243: Take action to prevent static discharges.
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264: Wash hands and exposed skin thoroughly after handling.
 P271: Use only outdoors or in a well-ventilated area.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352: IF ON SKIN: Wash with plenty of water.
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P308+P313: IF exposed or concerned: Get medical advice/attention.
 P312: Call a POISON CENTER/doctor if you feel unwell.
 P321: Specific treatment (see Medical Advice on this label).
 P332+P313: If skin irritation occurs: Get medical advice/attention.
 P362+P364: Take off contaminated clothing and wash it before reuse.
 P370+P378: In case of fire: Use water spray, dry powder or carbon dioxide to extinguish.



	<p>P403+P235: Store in a well-ventilated place. Keep cool.</p> <p>P405: Store locked up.</p> <p>P501: Dispose of contents in accordance with local, state or national legislation.</p>
Acronyms	<p>ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways</p> <p>ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road</p> <p>CAS : Chemical Abstracts Service</p> <p>CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</p> <p>DNEL : Derived No Effect Level</p> <p>EC : European Community</p> <p>EINECS : European Inventory of Existing Commercial Chemical Substances</p> <p>IATA : International Air Transport Association</p> <p>IBC : Intermediate Bulk Container</p> <p>ICAO : International Civil Aviation Organization</p> <p>IMDG : International Maritime Dangerous Goods</p> <p>LTEL : Long term exposure limit</p> <p>PBT : Persistent, Bioaccumulative and Toxic</p> <p>PNEC : Predicted No Effect Concentration</p> <p>REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals</p> <p>RID : Regulations concerning the International Carriage of Dangerous Goods by Rail</p> <p>STEL : Short term exposure limit</p> <p>STOT : Specific Target Organ Toxicity</p> <p>UN : United Nations</p> <p>vPvB : very Persistent and very Bioaccumulative</p>
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