Scientific Laboratory Supplies - Safety Data Sheet CHE1912

(in accordance with regulation (EU) 2015/830 and regulation (EC) 1272/2008)

Revision: 1.1 Revision date: 16 April 2021
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Section 1. Identification

1.1 Product Identifier CHE1912

Product Name 2-ETHOXYETHANOL pure 500ml.

CAS Number 110-80-5
REACH Registration No 01-2119560582-38-XXXX

Molecular Formula $C_2H_5OCH_2CH_2OH$ =90.12

1.2 Relevent identified uses of the substance or mixure & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier Scientific Laboratory Supplies

Unit 6, Foresters Avenue
Fairham Business Park
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Nottingham
NG11 2AF
UNITED KINGDOM

Phone 0115 9821111
Fax 0115 9825275
Email sales@scientific-labs.com

1.4 Emergency Telephone (08:00-17:00) 0115 9821111
(24hr) 112
(Have this document to hand)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Flammable liquid, category 3	H226: Flammable liquid and vapour.
Acute toxicity, category 3 (inhalation)	H331: Toxic if inhaled.
Acute toxicity, category 4 (oral)	H302: Harmful if swallowed.
Reproductive toxicity, category 1B	H360: May damage fertility or the unborn child.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms

Hazard Statements Flammable liquid and vapour. May damage fertility or the unborn child. Toxic if inhaled. Harmful if swallowed.

Precautionary Statements	Keep away from heat / sparks/open flames/hot surfaces - No smoking. Wear protective gloves / protective clothing / eye protection / face protection. Avoid breathing dust / fume / gas / mist / vapours / spray. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician.

Section 3. Composition

3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
2-Ethoxyethanol	110-80-5	203-804-1	01-2119560582-38-XXXX	>99%	Flam. Liq. 3,Acute Tox. 3 (I),Acute Tox. 4 (O),Repr. 1B

Section 4. First Aid

4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION.
Skin	Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. If discomfort persists OBTAIN MEDICAL ATTENTION.
Inhalation	Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.
Ingestion	If conscious give plenty of water to drink. Do not induce vomiting. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.
Personal protection for first aiders	Wear protective gloves / eye protection.

4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

Extinguishing Media	Water spray, alcohol resistant foam, dry powder or carbon dioxide. Use water spray to keep fire exposed containers cool.
Unsuitable Media	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards	Vapour-air mixtures are explosive.

5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Protection	Ensure no sources of ignition. Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so. Beware : vapour is heavier than air and will tend to accumulate at low spots.

6.2 Environmental precautions

Enviromental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.

6.3 Methods and material for containment and cleaning up

Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.
Minor Spillage	Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. Wash area down with copious amounts of water.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

All transfer systems should be earthed to prevent accumulation of static electricity. Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Keep well separated from oxidising agents.

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits			
			Long Term (8hr TWA)		Short Term 15min period)	
2-Ethoxyethanol	110-80-5	>99%	2.0 ppm	8.0 mg/m-3	6.0 ppm	24.0 mg/m-3

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

Respiratory Protection	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.
Hand Protection	Use solvent resistant gloves.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards	No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	Clear colourless liquid.
Odour	Odourless.
pH	Not applicable
Boiling Point	135.1°C
Melting Point	-70°C
Flash Point	40°C (Open cup)
Upper Flammable Limit	15.7%
Lower Flammable Limit	2.6%
Auto Ignition	238°C
Explosive Properties	Moderate/severe in confined spaces.
Oxidising Properties	No.
Vapour Pressure	3.8mmHg @ 20°C
Relative Density	0.9320

Water Solubility	Completely miscible in water.

9.2 Other information

No data available.

Section 10. Stability & Reactivity

10.1	Reactivity	No data available.
10.2	Chemical Stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	Hot surfaces, naked flames or other sources of ignition.
10.5	Incompatable Materials	Strong oxidising agents. Hydrogen peroxide, chromium trioxide and potassium permanganate.
10.6	Hazardous Decomposition Products	None unusual. Burning will produce smoke, carbon monoxide and/or carbon dioxide.

Section 11. Toxicological Information

11.1 Information on toxicological effects

Eyes	The liquid or concentrated vapour will be irritating to the eyes.
Skin	The liquid may be absorbed across the skin in harmful amounts. Many of the effects typical of the vapour can result from absorbtion through the skin.
LD50 Skin	3300mg/kg Rabbit
Ingestion	Ingestion will cause gastrointestinal irritation. Ingestion of large amounts may cause liver and kidney damage.
LD50 Oral	2800mg/kg Rat
Inhalation	The vapour may produce irritation of the eyes, nose, throat and respiratory tract. Toxic effects to the blood, liver, kidneys, central nervous system and reproductive system have observed at levels above 300ppm, with adverse effects noted at levels as low as 10ppm.
LD50 Inhalation	4267ppm Rat (4 hours)
TCLo	Not available
Carcinogenicity	No information is available.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	Teratogen category 1. In laboratory animals and human exposures, a decrease in sperm count, sperm abnormalities, and a degeneration of the testes have been observed. Significant maternal toxicity, embryotoxic effects and teratogenic effects occur.
Other Information	It is regarded as posing a significant risk to exposed workers and hence low MEL's have been set.

Section 12. Ecological

12.1	Toxicity	Low toxicity to fish ;LC50 24 Hr (goldfish) >5000mg/l. Theoretical Oxygen demand (ThOD)= 1.96 g/g : BOD =1.27 g/g : COD =1.92 g/g.
	LC50 Algal	>1000mg/l Green algae (72 hours)
	LC50 Crustacea	>10000mg/l Daphnia magna (48 hours)
	LC50 Fish	>10000mg/l Bluegill (Lepomis macrochirus) (96 hours)
12.2	Persistence and degradability	Product is biodegradable.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
12.5	Results of PBT & vPvB assessment	Assessment not required.
12.6	Other adverse effects	None known at present.

Section 13. Disposal Considerations

13.1 Waste treatment methods

Disposal Methods	Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion.
Contaminated Packaging	Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion.

Section 14. Transport Information

14.1	**UN Number**	1171
14.2	**Proper Shipping Name**	Ethylene Glycol Monomethyl Ether
14.3	**Transport classes**	
	UN classification	3
	Subsidiary hazard(s)	None
	Transport category	3
	ADR Hazard ID	30
	Tunnel Restriction Code	D/E
14.4	**Packing Group**	III
14.5	**Environment hazards**	See section 12.
14.6	**Special precautions for user**	No special precautions required.
14.7	**Transport in bulk**	Not transported in bulk.

Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for subtance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification	Flammable liquid, category 3; Acute toxicity, category 3 (inhalation); Acute toxicity, category 4 (oral); Reproductive toxicity, category 1B
Signal word	Danger
Hazard Pictograms	
Hazard Statements	H226, H360, H331, H302 Flammable liquid and vapour. May damage fertility or the unborn child. Toxic if inhaled. Harmful if swallowed.
Precautionary Statements	P210, P280, P261, P304+P340, P301+P310, P331, P311 Keep away from heat / sparks/open flames/hot surfaces - No smoking. Wear protective gloves / protective clothing / eye protection / face protection. Avoid breathing dust / fume / gas / mist / vapours / spray. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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