

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name:	<b>2-Ethoxyethyl acetate</b>
Stock number:	A13639
CAS Number:	111-15-9
EC number:	203-839-2
Index number:	607-037-00-7

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

Identified use: SU24 Scientific research and development

### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:	Alfa Aesar GmbH & Co.KG A Johnson Matthey Company Zeppelinstr. 7b 76185 Karlsruhe / Germany Tel: +49 (0) 721 84007 280 Fax: +49 (0) 721 84007 300 Email: tech@alfa.com www.alfa.com
Informing department:	Product safety Tel + +049 (0) 7275 988687-0

### 1.4 Emergency telephone number:

Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)  
Poison Information Center Mainz  
www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240


## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

 GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

 GHS08 health hazard

Repr. 1B H360FD May damage fertility. May damage the unborn child.


 GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.


Acute Tox. 4 H332 Harmful if inhaled.

### Classification according to Directive 67/548/EEC or Directive 1999/45/EC

 T; Toxic

Repr. Cat. 2

R60-61: May impair fertility. May cause harm to the unborn child.

 Xn; Harmful

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R10: Flammable.

### Information concerning particular hazards for human and environment:

Not applicable

### Other hazards that do not result in classification

No information known.

### 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

The substance is classified and labelled according to the CLP regulation.

    
GHS02 GHS07 GHS08

Signal word

Danger

Hazard statements

H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H332 Harmful if inhaled.  
H360FD May damage fertility. May damage the unborn child.  
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Precautionary statements

### 2.3 Other hazards

Results of PBT and vPvB assessment

Not applicable.

PBT:

Not applicable.

vPvB:

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

CAS# Designation: 111-15-9 2-Ethoxyethyl acetate

Identification number(s):

203-839-2

EC number:

607-037-00-7

Index number:

Trade name **2-Ethoxyethyl acetate**

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#### SECTION 4: First aid measures

##### 4.1 Description of first aid measures

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.  
Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.  
Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

Seek medical treatment.

##### 4.2 Most important symptoms and effects, both acute and 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: Firefighting measures

##### 5.1 Extinguishing media

##### Suitable extinguishing agents

CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

##### 5.2 Special hazards arising from the substance or mixture

If this product is involved in a fire, the following can be released:  
Carbon monoxide and carbon dioxide

##### 5.3 Advice for firefighters

##### Protective equipment:

Wear self-contained breathing apparatus.  
Wear full protective suit.

#### SECTION 6: Accidental release measures

##### 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Keep away from ignition sources

##### 6.2 Environmental precautions:

Do not allow material to be released to the environment without proper governmental permits.  
Do not allow product to reach sewage system or water bodies.  
Do not allow to enter the ground/soil.

##### 6.3 Methods and material for containment and cleaning up:

Keep away from ignition sources.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.

##### Prevention of secondary hazards:

##### 6.4 Reference to other sections

Keep away from ignition sources.  
See Section 7 for information on safe handling  
See section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

#### SECTION 7: Handling and storage

##### 7.1 Precautions for safe handling

Keep containers tightly sealed.  
Store in cool, dry place in tightly closed containers.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle container with care.

##### Information about protection against explosions and fires:

Protect against electrostatic charges.  
Fumes can combine with air to form an explosive mixture.  
Keep ignition sources away - Do not smoke.

##### 7.2 Conditions for safe storage, including any incompatibilities

##### Storage Requirements to be met by storerooms and containers:

No special requirements.

##### Information about storage in one common storage facility:

Store away from oxidising agents.

##### Further information about storage conditions:

Keep container tightly sealed.  
Store in cool, dry conditions in well sealed containers.  
Store in a locked cabinet or with access restricted to technical experts or their assistants.  
No further relevant information available.

##### 7.3 Specific end use(s)

#### SECTION 8: Exposure controls/personal protection

##### Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

##### 8.1 Control parameters

##### Components with critical values that require monitoring at the workplace:

##### 111-15-9 2-Ethoxyethyl acetate (100,0%)

AGW (Germany)	Long-term value: 10,8 mg/m <sup>3</sup> , 2 ppm 8(II);EU, DFG, H, Z
PEL (USA)	Long-term value: 540 mg/m <sup>3</sup> , 100 ppm Skin
REL (USA)	Long-term value: 2,7 mg/m <sup>3</sup> , 0,5 ppm Skin
TLV (USA)	Long-term value: 27 mg/m <sup>3</sup> , 5 ppm Skin; BEI

##### Ingredients with biological limit values:

##### 111-15-9 2-Ethoxyethyl acetate (100,0%)

BGW (Germany)	50 mg/l Untersuchungsmaterial: Urin Probennahmezeitpunkt: bei Langzeitexposition: Nach mehreren vorangegangenen Schichten Parameter: Ethoxyessigsäure
BEI (USA)	100 mg/g creatinine Medium: urine Time: end of shift at end of workweek Parameter: 2-Ethoxyacetic acid

##### Additional information:

No data

##### 8.2 Exposure controls

##### Personal protective equipment

##### General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.

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<b>Breathing equipment:</b>	Keep away from foodstuffs, beverages and food.
<b>Protection of hands:</b>	Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Store protective clothing separately. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment. Use breathing protection with high concentrations.
<b>Material of gloves</b>	Check protective gloves prior to each use for their proper condition.
<b>Penetration time of glove material</b>	The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
<b>Eye protection:</b>	Impervious gloves
<b>Body protection:</b>	Not determined Safety glasses Face protection Protective work clothing.

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**General Information**

**Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Colourless
<b>Smell:</b>	Fruit-like
<b>Odour threshold:</b>	Not determined.

<b>pH-value:</b>	Not determined.
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**Change in condition**

<b>Melting point/Melting range:</b>	-62 °C
<b>Boiling point/Boiling range:</b>	155-157 °C
<b>Sublimation temperature / start:</b>	Not determined

<b>Flash point:</b>	52 °C
<b>Inflammability (solid, gaseous)</b>	Not applicable.
<b>Ignition temperature:</b>	380 °C
<b>Decomposition temperature:</b>	Not determined
<b>Self-inflammability:</b>	Not determined.

**Danger of explosion:** Product is not explosive. However, formation of explosive air/steam mixtures is possible.

**Critical values for explosion:**

<b>Lower:</b>	1,7 Vol %
<b>Upper:</b>	12,7 Vol %
<b>Steam pressure at 20 °C:</b>	2,07 hPa
<b>Density at 20 °C</b>	0,975 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

<b>Solubility in / Miscibility with</b>	
<b>Water at 20 °C:</b>	230 g/l
<b>Partition coefficient (n-octanol/water):</b>	Not determined.

<b>Viscosity:</b>	
<b>dynamic at 20 °C:</b>	1,4 mPas
<b>kinematic:</b>	Not determined.

**9.2 Other information** No further relevant information available.

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

**10.2 Chemical stability**

**Thermal decomposition / conditions to be avoided:**

No information known.  
Stable under recommended storage conditions.  
No decomposition if used and stored according to specifications.

**10.3 Possibility of hazardous reactions**

No dangerous reactions known

**10.5 Incompatible materials:**

Oxidising agents

**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

<b>Acute toxicity:</b>	Harmful if inhaled. Harmful in contact with skin. Harmful if swallowed. Danger by skin resorption. The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.
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**LD/LC50 values that are relevant for classification:**

Oral LD50 2700 mg/kg (rat)

<b>Skin irritation or corrosion:</b>	May cause irritation
<b>Eye irritation or corrosion:</b>	May cause irritation
<b>Sensitization:</b>	No sensitizing effect known.
<b>Germ cell mutagenicity:</b>	No effects known.
<b>Carcinogenicity:</b>	No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
<b>Reproductive toxicity:</b>	May damage fertility or the unborn child. The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.
<b>Specific target organ system toxicity - repeated exposure:</b>	No effects known.
<b>Specific target organ system toxicity - single exposure:</b>	No effects known.
<b>Aspiration hazard:</b>	No effects known.
<b>Subacute to chronic toxicity:</b>	No effects known.
<b>Additional toxicological information:</b>	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

**SECTION 12: Ecological information**

**12.1 Toxicity**

**Aquatic toxicity:** No further relevant information available.

**12.2 Persistence and degradability** No further relevant information available.

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

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**Additional ecological information:**

**General notes:**

Do not allow material to be released to the environment without proper governmental permits.  
Water hazard class 1 (Assessment by list): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.  
Avoid transfer into the environment.

**12.5 Results of PBT and vPvB assessment**

**PBT:**

Not applicable.

**vPvB:**

Not applicable.

**12.6 Other adverse effects**

No further relevant information available.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**Recommendation**

Hand over to disposers of hazardous waste.  
Must be specially treated under adherence to official regulations.  
Consult state, local or national regulations for proper disposal.

**Uncleaned packagings:**

**Recommendation:**

Disposal must be made according to official regulations.

**SECTION 14: Transport information**

**UN-Number**

**ADR, IMDG, IATA**

UN1172

**14.2 UN proper shipping name**

**ADR**

**IMDG, IATA**

1172 ETHYLENE GLYCOL MONOETHYL ETHER ACETATE  
ETHYLENE GLYCOL MONOETHYL ETHER ACETATE

**14.3 Transport hazard class(es)**

**ADR**



**Class**

**Label**

**IMDG, IATA**

3 (F1) Flammable liquids.

3



**Class**

**Label**

3 Flammable liquids.

3

**Packing group**

**ADR, IMDG, IATA**

III

**14.5 Environmental hazards:**

Not applicable.

**14.6 Special precautions for user**

**Kemler Number:**

**EMS Number:**

Warning: Flammable liquids.

30

F-E,S-D

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC**

**Code**

Not applicable.

**Transport/Additional information:**

**ADR**

**Excepted quantities (EQ):**

**Limited quantities (LQ)**

**Transport category**

**Tunnel restriction code**

E1

5L

3

D/E

**UN "Model Regulation":**

UN1172, ETHYLENE GLYCOL MONOETHYL ETHER ACETATE, 3, III

**SECTION 15: Regulatory information**

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

**Australian Inventory of Chemical**

**Substances**

Substance is listed.

**Standard for the Uniform Scheduling of**

**Medicines and Poisons**

**National regulations**

Substance is not listed.

**Information about limitation of use:**

Employment restrictions concerning young persons must be observed.  
Employment restrictions concerning women of child-bearing age must be observed.  
For use only by technically qualified individuals.

**Classification according to VbF:**

**Technical instructions (air):**

A II

Class	Share in %
NK	100,0

**Water hazard class:**

Water hazard class 1 (Assessment by list): slightly hazardous for water.

**Other regulations, limitations and prohibitive**

**regulations**

**ELINCS (European List of Notified Chemical**

**Substances)**

Substance is not listed.

**Substance of Very High Concern (SVHC)**

**according to the REACH Regulations (EC)**

**No. 1907/2006.**

This substance is included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH).

**REACH - Pre-registered substances**

Substance is listed.

**15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Department issuing SDS:**

Health, Safety and Environmental Department.

**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organization  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
vPvB: very Persistent and very Bioaccumulative  
ACGIH: American Conference of Governmental Industrial Hygienists (USA)  
OSHA: Occupational Safety and Health Administration (USA)  
NTP: National Toxicology Program (USA)  
IARC: International Agency for Research on Cancer  
EPA: Environmental Protection Agency (USA)  
Flam. Liq. 3: Flammable liquids, Hazard Category 3  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Repr. 1B: Reproductive toxicity, Hazard Category 1B

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