



SAFETY DATA SHEET

Ethanol 99,9%

SDS conform REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex II - EU

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

Date issued 20.08.2014

1.1. Product identifier

Product name Ethanol 99,9%
Chemical name Ethyl alcohol
Synonyms methyl carbinol
REACH Reg. No. 01-2119457610-43-xxxx
CAS no. 64-17-5
EC no. 200-578-6
Index no. 603-002-00-5
Article no. 12110000

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

Use of the substance/preparation For the preparation of paints and as a solvent. Disinfectant. Antiseptic. Antifreeze liquid. General purpose cleaner.

1.3. Details of the supplier of the safety data sheet

Company name Fred Holmberg & Co AB
Office address Geijersgatan 8
Postal address Box 60056
Postcode S-216 10
City Limhamn
Country Sweden
Tel +46 (0)40 15 79 20
Fax +46 (0)40 16 22 95
E-mail info@holmberg.se
Website <http://www.holmberg.se/en/>

1.4. Emergency telephone number

Emergency telephone 112 (Europe)

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to 67/548/EEC or 1999/45/EC F; R11
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] Flam. Liq. 2;H225;
Eye Irrit. 2;H319;
Additional information on classification Specific concentration limits: Ethanol \geq 50% -> Eye.Irrit.2 H319

2.2. Label elements

Hazard Pictograms (CLP)



Signal word	Danger
Hazard statements	H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation.
Precautionary statements	P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting/equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P264 Wash thoroughly after handling. 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. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/attention. P370 + P378 In case of fire: Use for extinction. P403 + P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to

2.3. Other hazards

Other hazards	Not known.
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SECTION 3: Composition/information on ingredients

3.1. Substances

Substance	Identification	Classification	Contents
Ethanol	CAS no.: 64-17-5 EC no.: 200-578-6 Index no.: 603-002-00-5 Synonyms: Ethanol	F; R11 Flam. Liq. 2; H225	99,8 %

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothes and rinse skin thoroughly with water.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention.
Ingestion	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Do not induce vomiting. Rinse mouth with water. Get medical attention if any discomfort continues.

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

Information for health personnel	Treat Symptomatically. Do not give victim anything to drink if he is unconscious.
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4.3. Indication of any immediate medical attention and special treatment needed

Specific details on antidotes	No recommendation given.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water
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fog.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards HIGHLY FLAMMABLE! Solvent vapours may form explosive mixtures with air.
 Hazardous combustion products Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

5.3. Advice for firefighters

Fire fighting procedures No specific fire fighting procedure given.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal protection measures Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Ventilate well. Stop leak if possible without risk. Avoid contact with skin and eyes. Do not breathe vapour. For personal protection, see section 8.

6.2. Environmental precautions

Environmental precautionary measures Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Cleaning method Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

6.4. Reference to other sections

Other instructions Information om exponering / personligt skydd och avfallshantering finns i avsnitt 8 och 13. (Information regarding exposure / personal protection and disposal, see section 8 and 13).

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Handling Keep away from heat, sparks and open flame. Take precautionary measures against static discharges. Mechanical ventilation may be required.

Protective Safety Measures

Advice on general occupational hygiene Provide easy access to water supply and eye wash facilities.

7.2. Conditions for safe storage, including any incompatibilities

Storage Keep away from heat, sparks and open flame. Ground container and transfer equipment to eliminate static electric sparks. Store in a cool and well-ventilated place.

7.3. Specific end use(s)

Specific use(s) Not entered.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational Exposure limit values**

Substance	Identification	Value	TWA Year
Ethanol	CAS no.: 64-17-5	8-hour TWA: 1000 ppm	2011
	EC no.: 200-578-6	8-hour TWA: 1920 mg/m ³	
	Index no.: 603-002-00-5		
	Synonyms: Ethanol		

Other Information about threshold limit values Norske grenseverdier; FOR-2011-12-06-1358 vedlegg 1.
 Etanol: 8 t.: 500ppm, 950 mg/m³ (2003)

8.2. Exposure controls

Occupational exposure limits Provide adequate ventilation. Observe Occupational Exposure Limits and

minimise the risk of inhalation of vapours. Protective gloves and goggles are recommended. Provide eyewash, quick drench.

Safety signs



Respiratory protection

Respiratory protection

Respiratory protection must be used if air contamination exceeds acceptable level. Use respiratory equipment with gas filter, type A2.

Hand protection

Hand protection

Use protective gloves. Chemical resistant gloves required for prolonged or repeated contact. Gloves of nitrile rubber, PVA or Viton are recommended.

Eye / face protection

Eye protection

Use safety goggles or face shield in case of splash risk.

Skin protection

Skin protection (except hands)

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene / Environmental

Specific hygiene measures

Wash hands after contact.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Fluid.
Colour	Colourless.
Odour	Odour of alcohol.
Comments, pH (as supplied)	Not relevant.
Melting point/melting range	Value: -115 °C
Boiling point / boiling range	Value: 78 °C
Flash point	Value: ≤ 23 °C
Explosion limit	Value: 2,5-13,5 %
Vapour pressure	Value: 5,7 kPa Test temperature: 20 °C
Vapour density	Value: 1,6
Specific gravity	Value: 789 kg/m ³ Test temperature: 20 °C
Solubility description	Completely soluble in water. Soluble in: Organic solvents.
Partition coefficient: n-octanol/water	Value: -0,35
Spontaneous combustability	Value: 425 °C
Viscosity	Value: 1,2 mPas Test temperature: 20 °C

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity

Heating may cause a fire.

10.2. Chemical stability

Stability

Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions

Not known.

10.4. Conditions to avoid

Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Avoid contact with oxidising agents (e.g. nitric acid, peroxides and chromates). Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological Information:

Other toxicological data Acute Toxicity (Oral LD50): mg/kg (oral rat) 7060
Acute Toxicity (Inhalation LC50): mg/l (vapours) (4h) 124,7
Acute Toxicity (Dermal LD50): mg/kg (ipr-rat) > 20 000

Potential acute effects

Inhalation In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea. Icke klassificerad som aspirationstoxisk (Not classified as asp. tox.)

Skin contact Prolonged or frequent contact may cause redness, itching, eczema and skin cracking. Defats the skin.

Eye contact Causes serious eye irritation. The level of response is not sufficient to trigger a classification under Directive 67/548, but sufficient to require classification according to Regulation 1272/2008.

Ingestion Ingestion of large amounts may cause unconsciousness. However, ingestion may cause nausea, headache, dizziness and intoxication. Ingestion may cause irritation of the gastrointestinal tract, vomiting and diarrhoea. May cause irritation to the mouth and throat.

Delayed effects / repeated exposure

Sensitisation Not known.
Chronic effects None known.

Carcinogenic, Mutagenic or Reprotoxic

Carcinogenicity None.
Mutagenicity Not known.
Teratogenic properties Excessive consumption of alcohol during pregnancy can cause fetal alcohol syndrome in childhood, which may induce a decrease in birth weight, birth defects and developmental disabilities. There is no evidence that such effects can be caused by exposure other than direct ingestion of alcoholic beverages. According to these data it can be concluded that such doses of ethanol that cause adverse effects on reproduction cannot be taken any other way than by the repeated consumption of a large amount of alcoholic drinks in conjunction with alcohol problems.

Reproductive toxicity Not known.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic, fish Value: 13500 mg/l
Method of testing: LC50
Fish, species: Pimephales promelas
Duration: 96h

Acute aquatic, algae Value: 5000 mg/l
Method of testing: IC50
Algae, species: Scenedesmus subspicatus
Duration: 7d

Acute aquatic, Daphnia Value: 5400 mg/l
Method of testing: EC50

Daphnia, species: D. magna
Duration: 72h

12.2. Persistence and degradability

Degradation half life Easily biodegradable. 85% in 28 d, OECD 301D
Chemical oxygen demand (COD) Value: 0,4-0,8
Method of testing: COD
Biological oxygen demand (BOD) Value: 0,4-0,8
Method of testing: BOD

12.3. Bioaccumulative potential

Bioaccumulative potential Will not bio-accumulate.
Bioconcentration factor (BCF) Value: 0,66
Method of testing: BCF

12.4. Mobility in soil

Mobility The product is water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

PBT assessment results This substance is not classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects / Remarks None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal Confirm disposal procedures with environmental engineer and local regulations. Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point. Liquid components can be disposed of by incineration.
Product classified as hazardous waste Yes
Packaging classified as hazardous waste No

SECTION 14: Transport information

14.1. UN number

ADR 1170
RID 1170
IMDG 1170
ICAO/IATA 1170

14.2. UN proper shipping name

ADR ETHANOL
RID ETHANOL
IMDG ETHANOL
ICAO/IATA ETHANOL

14.3. Transport hazard class(es)

ADR 3
Hazard no. 33
RID 3
ADN 33
IMDG 3
ICAO/IATA 3

14.4. Packing group

ADR II
RID II
IMDG II

ICAO/IATA II

14.5. Environmental hazards

Comments Not relevant.

14.6. Special precautions for user

EmS F-E, S-D

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**SECTION 15: Regulatory information**

EC no. 200-578-6

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

Other Label Information Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Legislation and regulations Dangerous Substance Directive 67/548/EEC.
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).
The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895). Avfallsförordningen (2011:927).

15.2. Chemical safety assessment**SECTION 16: Other information****Hazard symbol**

Highly flammable

R-phrases

R11 Highly flammable.

S-phrases

S2 Keep out of the reach of children.

S7 Keep container tightly closed.

S16 Keep away from sources of ignition - No smoking.

Classification according to
Regulation (EC) No 1272/2008
[CLP/GHS]

Flam. Liq. 2; H225;

Eye Irrit. 2; H319;

List of relevant R-phrases (under headings 2 and 3).

R11 Highly flammable.

List of relevant H-phrases (Section 2 and 3).

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Version

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Responsible for safety data sheet

Fred Holmberg & Co AB