ETHYL CHLORIDE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Reference number: 101302900
Revision date: 2/28/2023 Supersedes version of: 2/17/2020 Version: 13.0

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

1.1. Product identifier

Product form	:	Substance
Name	:	ETHYL CHLORIDE
EC Index-No.	:	602-009-00-0
EC-No.	:	200-830-5
CAS-No.	:	75-00-3
REACH registration No	:	01-2119487479-17
Product code	:	101302900

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

1.2.1. Relevant identified uses

Use of the substance/mixture	:	Synthesis intermediate Medical applications. Formulation or re-packing

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier
Dehon Service SAS
26 Avenue du Petit Parc
94683 VINCENNES Cedex
France
T 01 43 98 75 00 - F 01 43 98 21 51
ContactFDS@climalife.dehon.com

Other
Climalife Kft Budepesta sucurcala Bucuresti Romania
Bulevardul Hristo Botev, Nr. 28, Biroul NR 4, Modulul I
Bucuresti Sectorul 3
Romania
ContactFDS@climalife.dehon.com

Other
Dehon Kälte-Fachvertriebs GmbH
Robert-Bosch-Strasse 14
40668 MEERBUSCH
Germany
T 00 49 2150 7073 0 - F 00 49 2150 7073 17
ContactFDS@climalife.dehon.com

Other
Dehon Service Belgium s.a/n.v.
Avenue Carton de Wiart, 79
1090 Bruxelles
Belgium
T 00 32 2 421 01 70 - F 00 32 2 426 96 62
ContactFDS@climalife.dehon.com

Other
Friogas sa
Poligono Industrial SEPES Parcela 10
46500 SAGUNTO (Valencia)
Spain
T 00 34 9 6 266 36 32 - F 00 34 9 6 266 50 25
ContactFDS@climalife.dehon.com

Other

Other
Climalife Hongrie Kft
Villányi út 47
1118 Budaörs
Hungary
T (36) 23 431 660 - F (36) 23 431 661
ContactFDS@climalife.dehon.com

Other
Climalife Supplied by Inventec Performance Chemicals Italia SRL
Via del Lavoro, 10/G
20874 Busnago MB
Italia
T +39 39-5973480 - F +39 39-5973490
ContactFDS@climalife.dehon.com

Other
Dehon nordic service
Östra Hamngatan 50B 3tr
41109 GÖTEBORG
Sweden
T 00 46 735 01 90 50
ContactFDS@climalife.dehon.com

Other
Dehon Service Nerderland B.V.
Van Konijnenburgweg 84
NL-4612 PL Bergen Op Zoom
Netherlands
T 00 31 164 212 830 - F 00 31 164 212 831
ContactFDS@climalife.dehon.com

Other
Galco s.a/n.v.
Avenue Carton de Wiart, 79
1090 BRUSSELS
Belgium
T 00 32 2 421 01 84 - F 00 32 2 421 01 84 / 00 32 2 425 38 12
ContactFDS@climalife.dehon.com

Other

IDS Refrigeration Limited
22 Apex Court, Woodlands, Bradley Stoke
BS32 4JT Bristol
United Kingdom
T 00 44 1179 802520 - F 00 44 1179 802521
ContactFDS@climalife.dehon.com

Prochimac SA
ZI Petits Champs 15
CH-1400 Yverdon-les-Bains
Switzerland
T 00 41 32 727 36 00 - F 00 41 32 727 36 19
ContactFDS@climalife.dehon.com

1.4. Emergency telephone number

Emergency number : +33 (0) 1 72 11 00 03

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flam. Gas 1A	H220
Press. Gas (Liq.)	H280
Carc. 2	H351
Repr. 1A	H360FD
Aquatic Chronic 3	H412

Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS02 GHS08

Signal word (CLP) : Danger

Hazard statements (CLP) : H220 - Extremely flammable gas.
H280 - Contains gas under pressure; may explode if heated.
H351 - Suspected of causing cancer (oral, in contact with skin, if swallowed, if inhaled, inhalation).
H360FD - May damage fertility. May damage the unborn child.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P308+P313 - IF exposed or concerned: Get medical advice.
P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 - In case of leakage, eliminate all ignition sources.
P410+P403 - Protect from sunlight. Store in a well-ventilated place.
P405 - Store locked up.

2.3. Other hazards

Other hazards which do not result in classification : Contact with the liquid the may cause cold burns/frostbite. Asphyxiant in high concentrations. Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level. Flammable or explosive vapour/air mixtures may be formed.

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
chloroethane (75-00-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : ETHYL CHLORIDE
CAS-No. : 75-00-3
EC-No. : 200-830-5
EC Index-No. : 602-009-00-0

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
chloroethane	CAS-No.: 75-00-3 EC-No.: 200-830-5 EC Index-No.: 602-009-00-0 REACH-no: 01-2119487479-17	100	Flam. Gas 1A, H220 Press. Gas (Liq.), H280 Carc. 2, H351 Repr. 1B, H360FD Aquatic Chronic 3, H412

Full text of H- and EUH-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air. Call a physician immediately.

First-aid measures after skin contact : In the event of contact with the liquid: treat resulting frostbite as a burn. On frostbite: rinse with plenty of water, do NOT remove clothes. If skin burns appear, call a doctor immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist immediately, even if there are no immediate symptoms.

First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

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

Symptoms/effects : In the event of exposure to high concentrations : Disturbances of consciousness, CNS depression, Nausea, GCM – Vietnam sequence, Disturbances of heart rate, Vomiting, Headache, Drunkenness.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Powders.
Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : May form hazardous gas/vapour mixtures. Vapour/air mixtures are explosive and extremely flammable.
Hazardous decomposition products in case of fire : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases. See Section 10.

5.3. Advice for firefighters

Precautionary measures fire : Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
Firefighting instructions : Evacuate the danger area. Use water spray or fog for cooling exposed containers. Prolonged exposure to fire may cause containers to rupture/explode.
Protection during firefighting : Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate the danger area. Only qualified personnel equipped with suitable protective equipment may intervene. Keep away from ignition sources.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

If possible, stop flow of product. Eliminate ignition sources. Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Ensure adequate air ventilation. Let evaporate.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use only in well-ventilated areas. Use in contained systems. Prevent the build-up of electrostatic charge. Earth the equipment. Use non-sparking tools. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures : Do not drink, eat or smoke in the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep the container hermetically sealed. Store : away from any source of ignition, at temperature not exceeding 50°C, in a well-ventilated area.
Incompatible materials : Oxidizing materials. Oxidizing materials.
Packaging materials : Carbon steel. Stainless steel. Brass. Copper and its alloys. Do not use : Zinc, Aluminium and its alloys.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

chloroethane (75-00-3)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	134 mg/m³
WEL TWA (OEL TWA) [2]	50 ppm

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

ETHYL CHLORIDE (75-00-3)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	38.3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	268 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0.058 mg/l
PNEC aqua (marine water)	0.006 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.307 mg/kg dwt
PNEC sediment (marine water)	0.031 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.031 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	140 mg/l

chloroethane (75-00-3)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	38.3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	268 mg/m³ (100 ppm)
PNEC (Water)	
PNEC aqua (freshwater)	0.058 mg/l
PNEC aqua (marine water)	0.0058 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.3098 mg/kg dwt
PNEC sediment (marine water)	0.031 mg/kg dwt

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:
Safety glasses with side shields

8.2.2.2. Skin protection

Skin and body protection:
safety foot-wear. Protective non-flammable and resistant to chemical penetration clothing

Hand protection:
Chemically resistant protective gloves. Leather protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:
Gas mask with filter type AX. In the event of exposure to high concentrations : Self-contained breathing apparatus

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Gas
Colour	:	Colourless.
Molecular mass	:	64.5 g/mol
Odour	:	Pungent. Ethereal.
Odour threshold	:	10 – 12 mg/m³
Melting point	:	-138.4 °C
Freezing point	:	(1,013 bar)
Boiling point	:	12.3 °C
Flammability	:	Extremely flammable gas.
Explosive limits	:	Not available
Lower explosion limit	:	3.6 vol %
Upper explosion limit	:	14.8 vol %
Flash point	:	-43 °C
Auto-ignition temperature	:	510 °C
Decomposition temperature	:	Not available
pH	:	Not applicable
Viscosity, kinematic	:	0.3 mm²/s
Viscosity, dynamic	:	0.27 mPa.s (20°C)
Solubility	:	Water: 5.8 g/l (20°C)
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Partition coefficient n-octanol/water (Log Pow)	:	1.52
Vapour pressure	:	1342 hPa (20°C)
Vapour pressure at 50°C	:	Not available
Critical pressure	:	52.7 bar
Density	:	901 kg/m³ (20°C)
Relative density	:	0.92 (1°C)
Relative vapour density at 20°C	:	2.3
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Critical temperature : 187.2 °C

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

React in contact of alkali metals.

10.4. Conditions to avoid

Gas/air mixtures are explosive. Contains gas under pressure; may explode if heated. Keep away from heat and direct sunlight.

10.5. Incompatible materials

alkali metals. Oxidizing agent. zinc. Water, humidity. Aluminium. Aluminium alloys. Alkaline earth metals.

10.6. Hazardous decomposition products

Hydrogen chloride. Phosgene. Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

chloroethane (75-00-3)	
LC50 Inhalation - Rat [ppm]	> 19000 ppm/4h

Skin corrosion/irritation : Not classified
Additional information : Contact with the liquid the may cause cold burns/frostbite
Serious eye damage/irritation : Not classified
Additional information : Contact with the liquefied gas may cause severe ocular lesions
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer (oral, in contact with skin, if swallowed, if inhaled, inhalation).
Reproductive toxicity : May damage fertility. May damage the unborn child.
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

ETHYL CHLORIDE (75-00-3)	
Viscosity, kinematic	0.3 mm²/s

chloroethane (75-00-3)	
Viscosity, kinematic	0.3 mm²/s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified
Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

chloroethane (75-00-3)	
LC50 - Fish [1]	322.74 mg/l (96 Hours)
EC50 - Crustacea [1]	58 mg/l 48 Hours (Daphnia magna)
EC50 72h - Algae [1]	118 mg/l

12.2. Persistence and degradability

chloroethane (75-00-3)	
Persistence and degradability	53-91 % biodegradation after 28 days. Not readily biodegradable.

12.3. Bioaccumulative potential

ETHYL CHLORIDE (75-00-3)	
Partition coefficient n-octanol/water (Log Pow)	1.52

chloroethane (75-00-3)	
Partition coefficient n-octanol/water (Log Pow)	1.52
Bioaccumulative potential	Bioaccumulation unlikely.

12.4. Mobility in soil

chloroethane (75-00-3)	
Ecology - soil	Soil, adsorption : unlikely.

12.5. Results of PBT and vPvB assessment

Component	
chloroethane (75-00-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of at a licensed waste collection centre.
Product/Packaging disposal recommendations : Refer to manufacturer or supplier for information on recovery or recycling.

Additional information : The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal.

SECTION 14: Transport information

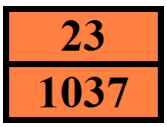
In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
UN 1037	UN 1037	UN 1037	UN 1037
14.2. UN proper shipping name			
ETHYL CHLORIDE	ETHYL CHLORIDE	Ethyl chloride	ETHYL CHLORIDE
Transport document description			
UN 1037 ETHYL CHLORIDE, 2.1, (B/D)	UN 1037 ETHYL CHLORIDE, 2.1	UN 1037 Ethyl chloride, 2.1	UN 1037 ETHYL CHLORIDE, 2.1
14.3. Transport hazard class(es)			
2.1	2.1	2.1	2.1
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

Overland transport

Classification code (ADR) : 2F
Special provisions (ADR) : 662
Limited quantities (ADR) : 0
Tank code (ADR) : PxBN(M)
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 23
Orange plates :



Tunnel restriction code (ADR) : B/D
EAC code : 2YE

Transport by sea

Limited quantities (IMDG) : 0
EmS-No. (Fire) : F-D
EmS-No. (Spillage) : S-U

Air transport

PCA Limited quantities (IATA) : Forbidden
PCA limited quantity max net quantity (IATA) : Forbidden

PCA packing instructions (IATA)	:	Forbidden
PCA max net quantity (IATA)	:	Forbidden
CAO packing instructions (IATA)	:	200
CAO max net quantity (IATA)	:	150kg
Special provisions (IATA)	:	A1

Rail transport

Special provisions (RID)	:	662
Limited quantities (RID)	:	0
Tank codes for RID tanks (RID)	:	PxBN(M)
Transport category (RID)	:	2
Colis express (express parcels) (RID)	:	CE3
Hazard identification number (RID)	:	23

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
All chapters have been modified since the previous version.

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
2	Classification and labelling	Modified	

Full text of H- and EUH-statements:	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 2	Carcinogenicity, Category 2
Flam. Gas 1A	Flammable gases, Category 1A
H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.
H351	Suspected of causing cancer.
H360FD	May damage fertility. May damage the unborn child.
H412	Harmful to aquatic life with long lasting effects.
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
Repr. 1A	Reproductive toxicity, Category 1A
Repr. 1B	Reproductive toxicity, Category 1B

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.