SAFETY DATA SHEET

Based upon Regulation (EC) No. 1907/2006, as amended by Regulation (EC) No. 453/2010

chloroethane, liquefied, under pressure

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

1.1 Product identifier:

Product name : chloroethane, liquefied, under pressure

Synonyms : AI3-24474; anodynon; chelene; chlorene; chlorethyl; chloroethane; chloroethyl; chloryl; chloryl anesthetic; DUBLOFIX; ethane, chloro-; ether chloridum; ether hydrochloric; ether muriatic; ethyl chloride; hydrochloric ether; kelene; monochlorethane; monochloroethane; muriatic ether; NARCOTILE

Registration number REACH : 01-2119487479-17

Product type REACH : Substance/mono-constituent

CAS number : 75-00-3

EC index number : 602-009-00-0

EC number : 200-830-5

RTECS number : KH7525000

Molecular mass : 64.52 g/mol

Formula : C2H5Cl

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

1.2.1 Relevant identified uses

Industrial use

Chemical raw material

1.2.2 Uses advised against

No uses advised against known

1.3 Details of the supplier of the safety data sheet:

Supplier of the safety data sheet

BALCHEM NV
Westvaartdijk 85
B-1850 Grimbergen Belgium
☎ +32 2 251 60 87
+32 2 252 17 51
info.grimbergen@balchem.com

Distributor of the product

BALCHEM NV
Westvaartdijk 85
B-1850 Grimbergen Belgium
☎ +32 2 251 60 87
+32 2 252 17 51
info.grimbergen@balchem.com

1.4 Emergency telephone number:

24h/24h (Telephone advice: English, French, German, Dutch):

+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

2.1.1 Classification according to Regulation EC No 1272/2008

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Flam. Gas	category 1	H220: Extremely flammable gas.
Press. Gas	Liquefied gas	H280: Contains gas under pressure; may explode if heated.
Carc.	category 2	H351: Suspected of causing cancer.
Aquatic Chronic	category 3	H412: Harmful to aquatic life with long lasting effects.

2.1.2 Classification according to Directive 67/548/EEC-1999/45/EC

Classified as dangerous in accordance with the criteria of Directives 67/548/EEC and 1999/45/EC

F+; R12 - Extremely flammable.

Carc. Cat. 3; R40 - Limited evidence of a carcinogenic effect

R52-53 - Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

2.2 Label elements:

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

Signal word Danger

H-statements

H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.
H351	Suspected of causing cancer.
H412	Harmful to aquatic life with long lasting effects.

P-statements

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.
P273	Avoid release to the environment.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P381	Eliminate all ignition sources if safe to do so.
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P403	Store in a well-ventilated place.

2.3 Other hazards:

CLP

May build up electrostatic charges: risk of ignition
May be ignited by sparks
Gas/vapour spreads at floor level: ignition hazard
Heat may cause pressure rise in tanks/drums: explosion risk
May cause frostbites
May be narcotic if inhaled
Caution! Substance is absorbed through the skin
Produces effects on the nervous system
Not readily biodegradable in water

SECTION 3: Composition/information on ingredients

3.1 Substances:

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to DSD/DPD	Classification according to CLP	Note	Remark
chloroethane 01-2119487479-17	75-00-3 200-830-5	C=100 %	F+; R12 Carc. Cat. 3; R40 R52-53	Flam. Gas 1; H220 Press. Gas - Liquefied gas; H280 Carc. 2; H351 Aquatic Chronic 3; H412	(1)(2)(10)	

(1) For R-phrases and H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

3.2 Mixtures:

Not applicable

SECTION 4: First aid measures

4.1 Description of first aid measures:

General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

In case of frostbites: Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

After eye contact:

Rinse immediately with plenty of water for 15 minutes. Take victim to an ophthalmologist. Do not apply neutralizing agents.

After ingestion:

Not applicable.

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

4.2.1 Acute symptoms

After inhalation:

Central nervous system depression. Headache. Nausea. Gastrointestinal complaints. Dizziness. Coordination disorders. Narcosis. Drunkenness. Disturbances of consciousness.

After skin contact:

Frostbites.

After eye contact:

Frostbites.

After ingestion:

Not applicable.

4.2.2 Delayed symptoms

No effects known.

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

Adrenaline and similar sympathomimetic drugs should be avoided.

SECTION 5: Firefighting measures

5.1 Extinguishing media:

5.1.1 Suitable extinguishing media:

Preferably: BC powder. Water spray. Polyvalent foam. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

Solid water jet ineffective as extinguishing medium.

5.2 Special hazards arising from the substance or mixture:

On burning: release of toxic and corrosive gases/vapours (phosgene, hydrogen chloride, carbon monoxide - carbon dioxide). Reacts on exposure to water (moisture) with (some) metals. Decomposes slowly on exposure to water (moisture): release of corrosive gases/vapours (hydrogen chloride).

5.3 Advice for firefighters:

5.3.1 Instructions:

If no hazard for/from the surroundings: controlled burning. If hazardous substances are nearby: consider extinguishment. Extinguish only if gas supply/leak can be shut afterwards. Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistant risk of physical explosion. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Protective clothing. Compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Keep upwind. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Avoid ingress of water in the containers.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Protective clothing.

Suitable protective clothing

See heading 8.2

6.2 Environmental precautions:

Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Tip the container on one side to stop the leakage. Try to reduce evaporation. Prevent soil and water pollution. Prevent spreading in sewers.

6.3 Methods and material for containment and cleaning up:

Prevent evaporation by covering with: foam. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Carefully collect the spill/leftovers. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4 Reference to other sections:

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1 Precautions for safe handling:

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Avoid contact of substance with water. Gas/vapour heavier than air at 20°C. Observe strict hygiene. Do not discharge the waste into the drain.

7.2 Conditions for safe storage, including any incompatibilities:

7.2.1 Safe storage requirements:

Storage temperature: <50 °C. Store in a cool area. Store in a dry area. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. Under a shelter/in the open. Aboveground. Meet the legal requirements. Max. storage time: < 180 day(s).

7.2.2 Keep away from:

Heat sources, ignition sources, combustible materials, oxidizing agents, (strong) acids, (strong) bases, water/moisture.

7.2.3 Suitable packaging material:

Stainless steel, monel steel, nickel, glass.

7.2.4 Non suitable packaging material:

Aluminium, zinc, polypropylene.

7.3 Specific end use(s):

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

The Netherlands

Chloorethaan	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	100 ppm	
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	268 mg/m³	

EU

Chloroethane	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	100 ppm	
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	268 mg/m³	

Belgium

Chlorure d'éthyle	Time-weighted average exposure limit 8 h	100 ppm	
	Time-weighted average exposure limit 8 h	268 mg/m³	

USA (TLV-ACGIH)

Ethyl chloride	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	100 ppm	

Germany

Chlorethan	Time-weighted average exposure limit 8 h (TRGS 900)	40 ppm	
	Time-weighted average exposure limit 8 h (TRGS 900)	110 mg/m³	

France

Chloroéthane	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	100 ppm	
	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	268 mg/m³	

UK

Chloroethane	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	50 ppm	
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	134 mg/m³	

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

Product name	Test	Number
Ethyl Chloride	NIOSH	2519

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL - Workers

chloroethane, liquefied, under pressure

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	268 mg/m³	
	Long-term systemic effects dermal	38.3 mg/kg bw/day	

PNEC

chloroethane, liquefied, under pressure

Compartments	Value	Remark
Fresh water	0.058 mg/l	
Salt water	0.0058 mg/l	
Aqua (intermittent releases)	0.58 mg/l	
STP	140 mg/l	
Fresh water sediment	0.3098 mg/kg sediment dw	
Marine water sediment	0.031 mg/kg sediment dw	
Soil	28.2849 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2 Exposure controls:

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Avoid contact of substance with water. Measure the concentration in the air regularly. Work under local exhaust/ventilation.

8.2.2 Individual protection measures, such as personal protective equipment

Observe strict hygiene. Do not eat, drink or smoke during work.

a) Respiratory protection:

Airborne concentration > exposure limit: Gas mask with filter type AX.

b) Hand protection:

Insulated gloves.

- materials (good resistance)

Tetrafluoroethylene.

- materials (less resistance)

Butyl rubber, chlorinated polyethylene, neoprene, nitrile rubber, polyethylene, PVC, nitrile rubber/PVC.

- materials (poor resistance)

Chloroprene rubber, natural rubber.

c) Eye protection:

Protective goggles.

d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Physical form	Liquefied gas
Odour	Irritating/pungent odour

Odour	Ether-like odour
Odour threshold	4.0 - 680 ppm
Colour	Colourless
Particle size	Not applicable (gas)
Explosion limits	3.15 - 15 vol %
	84 - 400 g/m³
Flammability	Extremely flammable gas.
Log Kow	1.43 ; Experimental value ; Other
Dynamic viscosity	0,279 mPa.s ; 10 °C
	0.21 mPa.s ; 50 °C
Kinematic viscosity	No data available
Melting point	-139 °C
Boiling point	12.3 °C ; 1013 hPa
Flash point	- 43 °C
Evaporation rate	No data available
Relative vapour density	2.2
Vapour pressure	1342 hPa ; 20 °C
	3200 hPa ; 50 °C
Solubility	water ; 0.574 g/100 ml ; 20 °C
	ethanol ; 48 g/100 ml
Relative density	0.88 ; 12 °C
	0.92 ; 1 °C
Decomposition temperature	No data available
Auto-ignition temperature	519 °C
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

9.2 Other information:

Specific conductivity	< 0.3 µS/m
Critical temperature	187 °C
Critical pressure	52689 hPa
Surface tension	0.021 N/m ; 5 °C
Absolute density	878 kg/m³ ; 12 °C

SECTION 10: Stability and reactivity

10.1 Reactivity:

May build up electrostatic charges: risk of ignition. May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.

10.2 Chemical stability:

Unstable on exposure to moisture.

10.3 Possibility of hazardous reactions:

Reacts on exposure to water (moisture) with (some) metals. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts violently with (some) metal powders.

10.4 Conditions to avoid:

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Avoid contact of substance with water.

10.5 Incompatible materials:

Combustible materials, oxidizing agents, (strong) acids, (strong) bases, water/moisture.

10.6 Hazardous decomposition products:

On burning: release of toxic and corrosive gases/vapours (phosgene, hydrogen chloride, carbon monoxide - carbon dioxide). Decomposes slowly on exposure to water (moisture): release of corrosive gases/vapours (hydrogen chloride).

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

11.1.1 Test results

Acute toxicity

chloroethane, liquefied, under pressure

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral						Data waiving	
Dermal						Data waiving	
Inhalation	LC50		107 mg/l	4 h	Rat	Literature study	
Inhalation	LC50		40700 ppm	4 h	Rat	Literature study	

Conclusion

Low acute toxicity by the inhalation route

Not classified for acute toxicity

Corrosion/irritation

chloroethane, liquefied, under pressure

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye						Data waiving	
Skin						Data waiving	

Conclusion

Not classified as irritating to the eyes

Not classified as irritating to the skin

Respiratory or skin sensitisation

chloroethane, liquefied, under pressure

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin						Data waiving	

Conclusion

Not classified as sensitizing for skin

Specific target organ toxicity

chloroethane, liquefied, under pressure

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral								Data waiving
Dermal								Data waiving
Inhalation	LOEC	Equivalent to OECD 413	50310 mg/m³ air		Loss of weight	13 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

Conclusion

Low sub-chronic toxicity by inhalation route

Not classified for subchronic toxicity

Mutagenicity (in vitro)

chloroethane, liquefied, under pressure

Result	Method	Test substrate	Effect	Value determination
Ambiguous	OECD 476	Chinese hamster ovary (CHO)		Experimental value

Mutagenicity (in vivo)

chloroethane, liquefied, under pressure

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474	3 days (6h/day)	Mouse (male/female)		Experimental value

Carcinogenicity

chloroethane, liquefied, under pressure

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Organ	Effect
Inhalation	Dose level	Equivalent to OECD 451	15000 ppm	102 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value	Brain	Tumor formation

Reproductive toxicity

chloroethane, liquefied, under pressure

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination

Developmental toxicity	NOAEC	Equivalent to OECD 414	13192 mg/m³ day	10 days (gestation, daily)	Mouse	No effect		Experimental value
Maternal toxicity	NOAEC	Equivalent to OECD 414	13192 mg/m³ air	10 days (gestation, daily)	Mouse (female)	No effect		Experimental value
Effects on fertility	NOAEC (P)	OECD 413	50130 mg/m³ air	13 weeks (6h/day, 5 days/week)	Rat (male/female)	No effect		Weight of evidence

Conclusion CMR

Suspected of causing cancer.

Not classified for mutagenic or genotoxic toxicity

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

chloroethane, liquefied, under pressure

No (test)data available

Chronic effects from short and long-term exposure

chloroethane, liquefied, under pressure

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Feeling of weakness. Gastrointestinal complaints. Tremor. Slurred speech. Coordination disorders. Disturbed motor response. Delusions. Enlargement/affection of the liver. Affection of the renal tissue. Respiratory difficulties.

SECTION 12: Ecological information

12.1 Toxicity:

chloroethane, liquefied, under pressure

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		36 mg/l	96 h	Salmo gairdneri			Literature study
Acute toxicity invertebrates	EC50	EU Method C.2	58 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; GLP
Toxicity algae and other aquatic plants	ErC50	OECD 201	118 mg/l	72 h	Scenedesmus subspicatus	Static system	Fresh water	Experimental value; GLP
Toxicity aquatic micro-organisms	EC10	DIN 38412-8	> 140 mg/l	17 h	Pseudomonas putida	Static system	Fresh water	Experimental value; GLP

Conclusion

Harmful to fishes

Harmful to invertebrates (Daphnia)

Slightly harmful to algae (EC50 (72h): 100 - 1000 mg/l)

Slightly harmful to bacteria

Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability:

chloroethane, liquefied, under pressure

Biodegradation water

Method	Value	Duration	Value determination
OECD 301D: Closed Bottle Test	0 %	28 day(s)	Experimental value
EU Method C.4	3 %	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	39.725 day(s)	0.5E6 /cm³	QSAR

Half-life water (t1/2 water)

Method	Value	Primary degradation/mineralisation	Value determination
	2.6 year(s)	Primary degradation	Weight of evidence

Half-life soil (t1/2 soil)

Method	Value	Primary degradation/mineralisation	Value determination
			Not applicable (gas)

Conclusion

Not readily biodegradable in water

No significant hydrolysis

12.3 Bioaccumulative potential:

chloroethane, liquefied, under pressure

BCF other aquatic organisms

Parameter	Method	Value	Duration	Species	Value determination
BCF		7.6 ppb		Ostreidae	Literature study

Log Kow

Method	Remark	Value	Temperature	Value determination
Other		1.43		Experimental value

Conclusion

Low potential for bioaccumulation (BCF < 500)

12.4 Mobility in soil:

chloroethane, liquefied, under pressure

Volatility (Henry's Law constant H)

Value	Method	Temperature	Remark	Value determination
0.00651 - 0.0155 atm m^3/mol	Other	10.3 - 34.6 °C		Experimental value

Conclusion

Not applicable (gas)

12.5 Results of PBT and vPvB assessment:

Substance does not meet the criteria of PBT, nor the criteria of vPvB according to Annex XIII of Regulation (EC) No 1907/2006, so is neither PBT nor vPvB.

12.6 Other adverse effects:

chloroethane, liquefied, under pressure

Global warming potential (GWP)

Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1 Waste treatment methods:

13.1.1 Provisions relating to waste

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
16 05 04* (gases in pressure containers and discarded chemicals: gases in pressure containers (including halons) containing dangerous substances).
Depending on branch of industry and production process, also other waste codes may be applicable. Hazardous waste according to Directive 2008/98/EC.

13.1.2 Disposal methods

Refer to manufacturer/supplier for information on recovery/ recycling. Remove waste in accordance with local and/or national regulations. Refer to supplier/manufacturer. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into surface water.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1 UN number:

UN number	1037

14.2 UN proper shipping name:

Proper shipping name	Ethyl chloride

14.3 Transport hazard class(es):

Hazard identification number	23
Class	2

Classification code	2F

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Limited quantities	none.

Rail (RID)

14.1 UN number:

UN number	1037

14.2 UN proper shipping name:

Proper shipping name	Ethyl chloride

14.3 Transport hazard class(es):

Hazard identification number	23
Class	2
Classification code	2F

14.4 Packing group:

Packing group	
Labels	2.1 (+13)

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Limited quantities	none.

Inland waterways (ADN)

14.1 UN number:

UN number	1037

14.2 UN proper shipping name:

Proper shipping name	Ethyl chloride

14.3 Transport hazard class(es):

Class	2
Classification code	2F

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Limited quantities	none.

Sea (IMDG/IMSBC)

14.1 UN number:

UN number	1037

14.2 UN proper shipping name:

Proper shipping name	Ethyl chloride

14.3 Transport hazard class(es):

Class	2.1

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	
Limited quantities	none.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Annex II of MARPOL 73/78	Not applicable

Air (ICAO-TI/IATA-DGR)

14.1 UN number:

UN number	1037

14.2 UN proper shipping name:

Proper shipping name	Ethyl chloride

14.3 Transport hazard class(es):

Class	2.1

14.4 Packing group:

Packing group	
Labels	2.1

14.5 Environmental hazards:

Environmentally hazardous substance mark	no

14.6 Special precautions for user:

Special provisions	A1
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
100 %	

REACH Annex XVII - Restriction

Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· chloroethane	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.	1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following: — metallic glitter intended mainly for decoration, — artificial snow and frost, — “whoopee” cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs.2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with: “For professional users only”.3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

National legislation The Netherlands

Waste identification (the Netherlands)	LWCA (the Netherlands): KGA category 06
Waterbezwaarlijkheid	8

National legislation Germany

MAK - Krebserzeugend Kategorie	3B
WGK	2; Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)
TA-Luft	5.2.5; I
	5.2.5

National legislation France

Catégorie cancérogène	C2

National legislation Belgium

No data available

Other relevant data

TLV - Carcinogen	Ethyl chloride; A3
IARC - classification	3; Chloroethane

15.2 Chemical safety assessment:

A chemical safety assessment has been performed.

SECTION 16: Other information

Labelling according to Directive 67/548/EEC-1999/45/EC (DSD/DPD)

Enumerated in substance list Annex I of Directive 67/548/EEC et sequens

Labels

Extremely flammable

R-phrases

12	Extremely flammable
40	Limited evidence of a carcinogenic effect
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S-phrases

(02)	(Keep out of the reach of children)
09	Keep container in a well-ventilated place
16	Keep away from sources of ignition - No smoking
33	Take precautionary measures against static discharges
36/37	Wear suitable protective clothing and gloves
61	Avoid release to the environment. Refer to special instructions/safety data sheets.

Full text of any R-phrases referred to under headings 2 and 3:

R12 Extremely flammable
R40 Limited evidence of a carcinogenic effect
R52 Harmful to aquatic organisms
R53 May cause long-term adverse effects in the aquatic environment

Full text of any H-statements referred to under headings 2 and 3:

H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.
H351 Suspected of causing cancer.
H412 Harmful to aquatic life with long lasting effects.

(*) = INTERNAL CLASSIFICATION BY BIG

PBT-substances = persistent, bioaccumulative and toxic substances

DSD Dangerous Substance Directive
DPD Dangerous Preparation Directive
CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

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