

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: **T869**
Version: **6.0 en**
Replaces version of: 2023-06-16
Version: (5)

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

1.1 Product identifier

Identification of the substance	1,2-Dichloroethane $\geq 99\%$, for synthesis
Article number	T869
Index No (GB CLP)	602-012-00-7
EC number	203-458-1
CAS number	107-06-2
Alternative name(s)	Ethylene dichloride

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

Relevant identified uses:	Isolated intermediate
Uses advised against:	Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). Food, drink and animal feeding-stuffs.

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co. KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

Telephone: +49 (0) 721 - 56 06 0

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e-mail: sicherheit@carlroth.de

Website: www.carlroth.de

Competent person responsible for the safety data sheet: Department Health, Safety and Environment

e-mail (competent person): sicherheit@carlroth.de

1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: T869

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
2.6	Flammable liquid	2	Flam. Liq. 2	H225
3.10	Acute toxicity (oral)	4	Acute Tox. 4	H302
3.1I	Acute toxicity (inhal.)	3	Acute Tox. 3	H331
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.6	Carcinogenicity	1B	Carc. 1B	H350
3.8R	Specific target organ toxicity - single exposure (respiratory tract irritation)	3	STOT SE 3	H335
3.10	Aspiration hazard	1	Asp. Tox. 1	H304

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

Labelling

Signal word

Danger

Pictograms

GHS02, GHS06,
GHS08



Hazard statements

H225 Highly flammable liquid and vapour
H302 Harmful if swallowed
H304 May be fatal if swallowed and enters airways
H315 Causes skin irritation
H319 Causes serious eye irritation
H331 Toxic if inhaled
H335 May cause respiratory irritation
H350 May cause cancer

Precautionary statements

Precautionary statements - prevention

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

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane ≥99 %, for synthesis

article number: **T869**

Precautionary statements - response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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
P308+P313	IF exposed or concerned: Get medical advice/attention

For professional users only

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance	1,2-Dichloroethane
Molecular formula	C ₂ H ₄ Cl ₂
Molar mass	98,97 g/mol
CAS No	107-06-2
EC No	203-458-1
Index No (GB CLP)	602-012-00-7

Substance of Very High Concern (SVHC)

Name of substance	CAS No	EC No	Listed in	Remarks
1,2-Dichloroethane	107-06-2	203-458-1	Annex XIV	Carc. 1B

Legend

Annex XIV List of substances subject to authorisation
Carc. 1B Carcinogenic (category 1B)

Substance, Specific Conc. Limits, M-factors, ATE

Specific Conc. Limits	M-Factors	ATE	Exposure route
-	-	670 mg/kg 7,758 mg/l/4h	oral inhalation: vapour

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: T869

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Self-protection of the first aider.

Following inhalation

Call a physician immediately. If breathing is irregular or stopped, administer artificial respiration.

Following skin contact

Rinse skin with water/shower. In case of skin irritation, consult a physician.

Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

Following ingestion

Rinse mouth with water (only if the person is conscious). In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Observe aspiration hazard if vomiting occurs.

4.2 Most important symptoms and effects, both acute and delayed

Aspiration hazard, Vomiting, Irritation, Cough, Dyspnoea

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings!
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: **T869**

Hazardous combustion products

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO₂), Hydrogen chloride (HCl), Hydrogen halides (HX)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provision of sufficient ventilation. Use extractor hood (laboratory). Avoid exposure.

Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane ≥99 %, for synthesis

article number: **T869**

Advice on general occupational hygiene

Wash hands before breaks and after work. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Incompatible substances or mixtures

Observe hints for combined storage.

Protect against external exposure, such as

light, humidity, contact with air/oxygen

Consideration of other advice:

Store locked up. Ground/bond container and receiving equipment.

Ventilation requirements

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted. Use local and general ventilation.

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
EU	ethylene dichloride	107-06-2	IOELV	2	8,2					H	2019/130/EU
GB	1,2-dichloroethane (ethylene dichloride)	107-06-2	WEL	5	21						EH40/2005

Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

H Absorbed through the skin

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Environmental values

Relevant PNECs and other threshold levels				
Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
PNEC	1,1 mg/l	aquatic organisms	freshwater	short-term (single instance)
PNEC	0,11 mg/l	aquatic organisms	marine water	short-term (single instance)

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: **T869**

Relevant PNECs and other threshold levels				
End-point	Threshold level	Organism	Environmental compartment	Exposure time
PNEC	27,8 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	11,1 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	1,11 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
PNEC	1,8 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection.

Skin protection



• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

• type of material

FKM (fluoro rubber)

• material thickness

0,4 mm

• breakthrough times of the glove material

>480 minutes (permeation: level 6)

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Flame-retardant protective clothing.

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: **T869**

Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of $> 65\text{ }^{\circ}\text{C}$, colour code: Brown).

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	schwach Lösungsmittel
Odour threshold	3 ppm
Melting point/freezing point	$-36\text{ }^{\circ}\text{C}$
Boiling point or initial boiling point and boiling range	$83,6\text{ }^{\circ}\text{C}$ at 1.013 hPa (ECHA)
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	250 g/m^3 (LEL) - 660 g/m^3 (UEL) / $6\text{ vol}\%$ (LEL) - $15,9\text{ vol}\%$ (UEL)
Flash point	$13\text{ }^{\circ}\text{C}$ at 1.013 hPa (ECHA)
Auto-ignition temperature	$440\text{ }^{\circ}\text{C}$ at 1.013 hPa (ECHA)
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	$0,6632\text{ mm}^2/\text{s}$ at $20\text{ }^{\circ}\text{C}$
Dynamic viscosity	$0,829\text{ mPa s}$ at $20\text{ }^{\circ}\text{C}$
<u>Solubility(ies)</u>	
Water solubility	$7,9\text{ g/l}$ at $25\text{ }^{\circ}\text{C}$ (ECHA)
<u>Partition coefficient</u>	
Partition coefficient n-octanol/water (log value):	1,45 (pH value: $\sim 7,4$, $20\text{ }^{\circ}\text{C}$) (ECHA)
<u>Vapour pressure</u>	
	102 hPa at $25\text{ }^{\circ}\text{C}$ 87 hPa at $20\text{ }^{\circ}\text{C}$
<u>Density and/or relative density</u>	
Density	$1,25\text{ g/cm}^3$ at $20\text{ }^{\circ}\text{C}$
Relative vapour density	3,4 (air = 1)

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: **T869**

Particle characteristics not relevant (liquid)

Other safety parameters

Oxidising properties none

9.2 Other information

Information with regard to physical hazard classes: There is no additional information.

Other safety characteristics:

Surface tension 32,45 dyn/cm (20 °C) (ECHA)

SECTION 10: Stability and reactivity

10.1 Reactivity

It's a reactive substance. Risk of ignition. Vapours may form explosive mixtures with air.

If heated

Risk of ignition.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Violent reaction with: strong oxidiser, Alkali metals, Alkaline earth metal, Metal powder, Nitric acid, Nitrogen oxides (NO_x)

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from moisture. Direct light irradiation. Contact with air/oxygen.

10.5 Incompatible materials

aluminium, iron, Light metals, different plastics

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification acc. to GHS

Acute toxicity

Harmful if swallowed. Toxic if inhaled.

GHS of the United Nations, annex 4. May be harmful in contact with skin.

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: T869

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
inhalation: vapour	LC50	7.758 mg/m ³ /4h	rat		ECHA
oral	LD50	670 mg/kg	rat		TOXNET
dermal	LD50	2.800 mg/kg	rabbit		TOXNET

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

May cause cancer.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

vomiting, aspiration hazard

• If in eyes

Causes serious eye irritation

• If inhaled

vertigo, headache, Irritation to respiratory tract, cough, Dyspnoea

• If on skin

causes skin irritation

• Other information

Other adverse effects: Liver and kidney damage, Cardiovascular system, Central nervous system

11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

11.3 Information on other hazards

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: T869

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)				
Endpoint	Value	Species	Source	Exposure time
LC50	136 mg/l	fish	ECHA	96 h
EC50	160 mg/l	aquatic invertebrates	ECHA	48 h

12.2 Persistence and degradability

Theoretical Oxygen Demand: 0,8083 mg/mg
Theoretical Carbon Dioxide: 0,8893 mg/mg

12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	1,45 (pH value: $\sim 7,4$, 20 °C) (ECHA)
BCF	2 (ECHA)

12.4 Mobility in soil

Henry's law constant	149 Pa m ³ /mol
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12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains.

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane ≥99 %, for synthesis

article number: **T869**

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Properties of waste which render it hazardous

- HP 3** flammable
- HP 4** irritant - skin irritation and eye damage
- HP 5** specific target organ toxicity (STOT)/aspiration toxicity
- HP 6** acute toxicity
- HP 7** carcinogenic

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

SECTION 14: Transport information

14.1 UN number or ID number

ADRRID	UN 1184
IMDG-Code	UN 1184
ICAO-TI	UN 1184

14.2 UN proper shipping name

ADRRID	ETHYLENE DICHLORIDE
IMDG-Code	ETHYLENE DICHLORIDE
ICAO-TI	Ethylene dichloride

14.3 Transport hazard class(es)

ADRRID	3 (6.1)
IMDG-Code	3 (6.1)
ICAO-TI	3 (6.1)

14.4 Packing group

ADRRID	II
IMDG-Code	II
ICAO-TI	II

14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)




1,2-Dichloroethane $\geq 99\%$, for synthesis


article number: T869

14.8 Information for each of the UN Model Regulations


Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) Additional information

Proper shipping name	ETHYLENE DICHLORIDE
Particulars in the transport document	UN1184, ETHYLENE DICHLORIDE, 3 (6.1), II, (D/E)
Classification code	FT1
Danger label(s)	3+6.1
	
Special provisions (SP)	802(ADN)
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
Transport category (TC)	2
Tunnel restriction code (TRC)	D/E
Hazard identification No	336
Emergency Action Code	2YE

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) Additional information

Classification code	FT1
Danger label(s)	3+6.1
	
Special provisions (SP)	802(ADN)
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
Transport category (TC)	2
Hazard identification No	336

International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name	ETHYLENE DICHLORIDE
Particulars in the shipper's declaration	UN1184, ETHYLENE DICHLORIDE, 3 (6.1), II, 13°C C.C.
Marine pollutant	-
Danger label(s)	3+6.1
	
Special provisions (SP)	-
Excepted quantities (EQ)	E2



Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane ≥99 %, for synthesis

article number: **T869**

Limited quantities (LQ)	1 L
EmS	F-E, S-D
Stowage category	B
Segregation group	10 - Liquid halogenated hydrocarbons
International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information	
Proper shipping name	Ethylene dichloride
Particulars in the shipper's declaration	UN1184, Ethylene dichloride, 3 (6.1), II
Danger label(s)	3+6.1
 	
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
H2	acute toxic (cat. 2 + cat. 3, inhal.)	50 200	41)

Notation

- 41) - Category 2, all exposure routes
- category 3, inhalation exposure route

Deco-Paint Directive

VOC content	100 %
VOC content	1.250 g/l

Industrial Emissions Directive (IED)

VOC content	100 %
VOC content	1.250 g/l

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane ≥99 %, for synthesis

article number: T869

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

Pollutant release and transfer registers (PRTR)			
Name of substance	CAS No	Remarks	Threshold for releases to air (kg/year)
1,2-Dichloroethane	107-06-2		1 000

Water Framework Directive (WFD)

List of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
1,2-Dichloroethane	1,2-dichloroethane	107-06-2	b)	
1,2-Dichloroethane	1,2-dichloroethane	107-06-2	c)	
1,2-Dichloroethane	Organohalogen compounds and substances which may form such compounds in the aquatic environment		a)	
1,2-Dichloroethane	Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment		a)	

Legend

- a) Indicative list of the main pollutants
- b) List of priority substances in the field of water policy
- c) Environmental Quality Standards for Priority Substances and certain other pollutants

Regulation on the marketing and use of explosives precursors

not listed

Regulation on drug precursors

not listed

Regulation on substances that deplete the ozone layer (ODS)

not listed

Regulation concerning the export and import of hazardous chemicals (PIC)

chemicals subject to the international prior informed consent (PIC) procedure (the 'PIC procedure').

Name of substance	Name acc. to inventory	CAS No	Wt%	Category / subcategory	Use limitation
1,2-Dichloroethane	1,2-dichloroethane (ethylene dichloride)	107-06-2	100	p(1) p(2) i(2)	b b b
1,2-Dichloroethane	ethylene dichloride (EDC)	107-06-2	100	p	

Legend

- b Use limitation: ban (for the sub-category or sub-categories concerned) according to Union legislation
- i(2) Sub-category: i(2) - industrial chemical for public use
- p Category: p - pesticides
- p(1) Sub-category: p(1) - pesticide in the group of plant protection products
- p(2) Sub-category: p(2) - other pesticide including biocides

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane ≥99 %, for synthesis

article number: **T869**

Regulation on persistent organic pollutants (POP)

not listed

National regulations(GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

Substance of Very High Concern (SVHC) acc. to GB REACH and HSE			
Name of substance	CAS No	Listed in	Remarks
1,2-Dichloroethane	107-06-2	Annex XIV	Carc. A57a

Legend

Annex XIV List of substances subject to authorisation
Carc. A57a Carcinogenic (Article 57a)

Restrictions according to GB REACH, Annex 17

Dangerous substances with restrictions (GB REACH, Annex 17)			
Name of substance	Name acc. to inventory	CAS No	No
1,2-Dichloroethane	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		3
1,2-Dichloroethane	carcinogenic		28
1,2-Dichloroethane	flammable / pyrophoric		40

Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

National inventories

Country	Inventory	Status
AU	AIIC	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
JP	CSCL-ENCS	substance is listed
JP	ISHA-ENCS	substance is listed
KR	KECI	substance is listed
MX	INSQ	substance is listed
NZ	NZIoC	substance is listed
PH	PICCS	substance is listed
TR	CICR	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed (ACTIVE)

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: **T869**

Country	Inventory	Status
VN	NCI	substance is listed

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NCI	National Chemical Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.3	Endocrine disrupting properties: Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.	Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.	yes
15.1		National inventories: change in the listing (table)	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2019/130/EU	Directive of the European Parliament and of the Council amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane ≥99 %, for synthesis

article number: **T869**

Abbr.	Descriptions of used abbreviations
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
GB CLP	The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/720 (as amended)
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
HSE	Health and Safety Executive
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LEL	Lower explosion limit (LEL)
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
TWA	Time-weighted average
UEL	Upper explosion limit (UEL)
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



1,2-Dichloroethane $\geq 99\%$, for synthesis

article number: **T869**

Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H350	May cause cancer.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.