



Propionyl Chloride

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

1.1 Product identifier

Product name:	Propionyl Chloride
CAS Number:	79-03-8
EC Number:	201-170-0
REACH Registration Number:	01-2119931027-45-0001

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

Product use: Laboratory chemicals, Industrial & for professional use only

1.3 Details of the supplier of the safety data sheet

Company name:	East Harbour Group Ltd Miranda House, The Quay Harwich, Essex, CO12 3HH United Kingdom
Telephone:	+44 (0) 333 242 0100
Email:	info@eastharbourgroup.com

1.4 Emergency telephone number

Emergency telephone:	0800 246 1274
----------------------	---------------

Section 2: Hazardous identification

2.1 Classification of the substance or mixture

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

Flam. Liq. 2; H225, Acute Tox. 4: H302, Acute Tox. 3; H331, Skin Corr. 1B; H314, Eye Dam. 1; H318

2.2 Label elements

Hazard pictogram



GHS02



GHS06



GHS05

Signal word:

Hazardous component(s) to be indicated on label:

Danger

Propionyl chloride



Propionyl Chloride

H-statement(s)

H225:

H302:

H331:

H314:

H318:

Highly flammable liquid and vapour.

Harmful if swallowed.

Toxic if inhaled.

Causes severe skin burns and eye damage.

Causes serious eye damage.

EUH014: Reacts violently with water.

P-statement(s)

P210:

P280:

P301+P330+P331:

P303+P361+P353:

P305+P351+P338:

P310:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water / shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

2.3 Other hazards

Hazard precautions

Reacts violently with water. Contact with water liberates toxic gas.

Section 3: Composition/information on ingredients

Hazardous ingredients

Ingredient		Classification (EC) 1272/2008	Concentration
Propionyl chloride	CAS No.: 79-03-8 EC-No.: 201-170-0 Index-No.: 607-093-00-2	Flam. Liq. 2; H225 Skin Corr. 1B; H314	100.0 % by weight

* Other data Classification according to Regulation (EC) No 1272/2008 [CLP]

Section 4: First aid measures

4.1 Description of first aid measures

General advice

If inhaled

Obtain medical attention.

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Consult a physician after significant exposure.

In case of skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.



Propionyl Chloride

If swallowed

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician immediately.

Notes to physician

Hazards:

Lung oedema

Symptoms:

Inhalation of vapours is irritating to the respiratory system, may cause throat pain and cough.

Treatment:

Treat symptomatically.

Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:

Suitable extinguishing media:

Dry powder

Carbon dioxide (CO₂)

Foam In the event of fire, cool tanks with water spray.

Extinguishing media which must not be used for safety reasons: Do not use a solid water stream as it may scatter and spread fire

5.2 Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases:

In case of fire hazardous decomposition products may be produced such as: Gaseous hydrogen chloride (HCl). Carbon monoxide

5.3 Advice for firefighters

Special protective equipment: Personal protection through wearing a tightly closed chemical protection suit and a self-contained breathing apparatus

Additional information on firefighting: Keep containers and surroundings cool with water spray.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Personal precautions:

Use personal protective equipment.

Do not breathe vapours, mist, or gas.

Avoid contact with skin, eyes, and clothing.

Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Environmental precautions

Prevent spreading over a wide area (e.g., by containment or oil barriers).

Do not let product enter drains.

Suppress (knock down) gases/vapours/mists with a water spray jet.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up



Propionyl Chloride

Contain spillage, and then collect with non-combustible absorbent material, (e.g., sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Residues

Neutralize with lime milk or soda and flush with plenty of water. Suppress (knock down) gases/vapours/mists with a water spray jet.

Section 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Keep containers dry and tightly closed to avoid moisture absorption and contamination. Provide sufficient air exchange and/or exhaust in work rooms. For personal protection see section 8.

Advice on protection against fire and explosion

Use only in an area containing explosion proof equipment. Keep away from heat and sources of ignition. Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Storage space and container requirements

Keep tightly closed.

Storage specifications

Keep away from direct sunlight.

Keep containers tightly closed in a dry, cool and well-ventilated place.

German storage class

Flammable liquid

Corrosive effects

TRGS 510

3

Section 8: Exposure controls/personal protection

8.1 Control parameters

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

8.2 Exposure controls

Respiratory protection

Remarks

Respirator with a gas filter
B2

Hand Protection

Suitable material

Material thickness:

Break through time:

butyl-rubber
0.7 mm
> 60 min



Propionyl Chloride

Eye Protection**Skin and body protection****General protective and hygiene measures****Other information (chapter 8.)**

Tightly fitting safety goggles

Wear suitable protective equipment. Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

Avoid contact with the skin and the eyes.

Shower or bathe at the end of working.

When using do not eat or drink.

Use protective skin cream before handling the product.

The substance/product is registered with strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH Regulation) and must therefore be handled as such.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Colour	Colourless – light yellow
Odour	Stinging
pH	Strong acidic
Melting Point/Freezing Point	-94°C
Boiling Point (°C)	80
Pressure	1013 mbar
Flash Point (°C)	6
Explosion Limits [Vol-%]	
Lower Limit	3.6%
Upper Limit	11.9%
Vapour Pressure [kPa]	10.6
Temperature	20°C
	390 mbar
Temperature	50°C
Density [g/cm ³]	1.059 g/cm ³
Temperature	20°C
Relative density of vapour/air mixture (saturated)	3.2
Water solubility [g/l]	Reacts violently with water
Viscosity, dynamic [kg/(m*s)]	0.48 mPa s
Temperature	20°C
Other Information	
Ignition temperature [°C]	270°C

Section 10: Stability and Reactivity

10.1 Reactivity

In use, may form flammable / explosive vapour-air mixture

10.2 Thermal decomposition

Keep away from heat. Avoid moisture.



Propionyl Chloride

10.3 Possibility of hazardous reactions

Exothermic reaction: Amines, Bases, Alcohol, Oxidizer

Explosive properties: Alkali metals, Alkaline earth metals, Powdered metals

Violent chemical reaction; water reactive

Warming. Moisture

No data available

In the event of fire: see section 5

10.4 Conditions to avoid

10.5 Incompatible materials

10.6 Hazardous decomposition products

Section 11: Toxicological Information

11.1 Toxicological effects:

Oral toxicity [mg/kg]

Value	Test criterion
	LD50/oral/rat = 823 mg/kg

Irritant effect on skin

Value	Test species
Corrosive	Rabbit

Irritant effect on eyes

Risk of serious damage to eyes. May cause blindness

Mutagenicity

Ames test: negative

Section 12: Ecological Information

12.1 Toxicity

Toxicity to fish [mg/l]

Value	Test criterion
	LC50/96h/Brachy danio rerio = 215 - 464 mg/l

12.2 Persistence and degradability

Biodegradability >70%

Section 13: Disposal considerations

13.1 Waste treatment methods

Waste disposal of substance:

Disposal considerations

Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.

Uncleaned empty packaging

Dispose of as unused product.







Suitable cleaning agents

Sodium hydroxide solution 10%

Propionyl Chloride

Section 14: Transport Information

	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
14.1 UN-No	1815	1815	1815
14.2 UN proper shipping name	PROPIONYL CHLORIDE	PROPIONYLCHLORIDE	Propionyl chloride
14.3 Transport hazard class(es)	3 (8)	3 (8)	3 (8)
14.4 Packaging group	II	II	II
14.5 Environmental hazards	No	No	No
14.6 Special precautions for user	No data available	No data available	No data available

	Land transport ADR/RID	Marine transport IMDG	Air Transport ICAO / IATA
Labels	3, 8  	3, 8  	3-Flammable Liquid; 8-Corrosive  
Risk No.	338		
Category	2		
Classification Code	FC		
Tunnel Restriction Code	D/E		
EmS		F-E; S-C	
Stowage category		B	

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

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

Water Hazard Class (Ger.)	1
Water hazard class (self-classification)	1
Additional regulations tariff:	2915.9090

Propionyl Chloride



Section 16: Other Information

Relevant H-phrases

H225:	Highly flammable liquid and vapour.
H302:	Harmful if swallowed.
H314:	Causes severe skin burns and eye damage.
H318:	Causes serious eye damage.
H331:	Toxic if inhaled.

Wording of the hazard classes Flam. Liq.:

Flammable liquid
Acute Tox.: Acute toxicity
Skin Corr.: Skin corrosion
Eye Dam.: Serious eye damage
PROC

Abbreviations and acronyms

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features, or qualities.

