

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

| | |
|--------------|--|
| Product form | : Substance |
| | : |
| EC no | : 201-170-0 |
| CAS No | : 79-03-8 |
| Product code | : 5472P |
| Formula | : CH ₃ CH ₂ COCl |
| Synonyms | : Propionic Acid Chloride |

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 : Industrial;For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.
107 Wode House Road, Jehangir Villa, Colaba
400005 Mumbai - INDIA
T +91 22 6663 6663 - F +91 22 6663 6699
info@lobachemie.com - www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

| | |
|--|------|
| Flammable liquids, Category 2 | H225 |
| Acute toxicity (oral), Category 4 | H302 |
| Acute toxicity (inhal.), Category 3 | H331 |
| Skin corrosion/irritation, Category 1 | H314 |

Full text of classification categories and H statements : see section 16

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Classification according to Directive 67/548/EEC or 1999/45/EC

F; R11
Xn; R20
C; R34
R14

Full text of R-phrases: 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

GHS05

GHS06

Signal word (CLP) :

Danger

Hazard statements (CLP) :

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

Precautionary statements (CLP) :

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P301+P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P403+P233 - Store in a well-ventilated place. Keep container tightly closed

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

| Name | Product identifier | % |
|-----------------------------------|---------------------------------------|-----|
| PROPIONYL CHLORIDE 98% EXTRA PURE | (CAS No) 79-03-8 (EC no) 201-170-0 | 100 |

Full text of R- and H-phrases: see section 16

3.2. Mixture

Not applicable

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Call a physician immediately.
- First-aid measures after skin contact : Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Get immediate medical advice/attention.
- First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after ingestion : Rinse mouth out with water. Do not induce vomiting because of corrosive effects. If you feel unwell, seek medical advice.

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

- Symptoms/injuries : Causes severe skin burns and eye damage.
- Symptoms/injuries after inhalation : Toxic if inhaled.
- Symptoms/injuries after ingestion : Harmful if swallowed.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin, eyes and clothing.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage temperature : 15 - 25 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection : protective gloves

Eye protection : Chemical goggles or safety glasses

Skin and body protection : Wear suitable protective clothing

Respiratory protection : Wear respiratory protection

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Molecular mass : 92.52 g/mol

Colour : Colourless.

Odour : No data available

Odour threshold : No data available

pH : < 7

Relative evaporation rate (butylacetate=1) : No data available

Melting point : -94 °C

Freezing point : No data available

Boiling point : 77 - 79 °C

Flash point : 6 °C

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : No data available

Relative vapour density at 20 °C : 3.19

Relative density : No data available

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| | |
|----------------------|---------------------------|
| Density | : 1.059 g/cm ³ |
| Solubility | : No data available |
| Log Pow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : 0.48 mPa.s at 20°C |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

May cause fire or explosion; strong oxidiser.

10.2. Chemical stability

Heating may cause a fire.

10.3. Possibility of hazardous reactions

Reacts violently with water.

10.4. Conditions to avoid

Open flame. Overheating. Heat. Sparks. Direct sunlight.

10.5. Incompatible materials

Metals.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Inhalation: Toxic if inhaled.

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: < 7

Serious eye damage/irritation : Serious eye damage, category 1, implicit
pH: < 7

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

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Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

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| | |
|----------------------|-------------------------------|
| Viscosity, kinematic | 0.45325779 mm ² /s |
|----------------------|-------------------------------|

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No additional information available

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

| | |
|---------------|-----------------|
| UN-No. (ADR) | : 1815 |
| UN-No. (IMDG) | : 1815 |
| UN-No.(IATA) | : 1815 |
| UN-No.(ADN) | : Not regulated |
| UN-No. (RID) | : Not regulated |

14.2. UN proper shipping name

| | |
|-----------------------------|----------------------|
| Proper Shipping Name (ADR) | : PROPIONYL CHLORIDE |
| Proper Shipping Name (IMDG) | : PROPIONYL CHLORIDE |
| Proper Shipping Name (IATA) | : PROPIONYL CHLORIDE |

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| | |
|---------------------------------------|---|
| Proper Shipping Name (ADN) | : Not regulated |
| Proper Shipping Name (RID) | : Not regulated |
| Transport document description (ADR) | : UN 1815 PROPIONYL CHLORIDE, 3 (8), II, (D/E) |
| Transport document description (IMDG) | : UN 1815 PROPIONYL CHLORIDE, 3 (8), II (12°C c.c.) |
| Transport document description (IATA) | : UN 1815 PROPIONYL CHLORIDE, 3 (8), II |

14.3. Transport hazard class(es)

ADR

| | |
|----------------------------------|---------|
| Transport hazard class(es) (ADR) | : 3 (8) |
| Danger labels (ADR) | : 3, 8 |



IMDG

| | |
|-----------------------------------|---------|
| Transport hazard class(es) (IMDG) | : 3 (8) |
| Danger labels (IMDG) | : 3, 8 |



IATA

| | |
|-----------------------------------|---------|
| Transport hazard class(es) (IATA) | : 3 (8) |
| Hazard labels (IATA) | : 3, 8 |



ADN

| | |
|----------------------------------|-----------------|
| Transport hazard class(es) (ADN) | : Not regulated |
|----------------------------------|-----------------|

RID

| | |
|----------------------------------|-----------------|
| Transport hazard class(es) (RID) | : Not regulated |
|----------------------------------|-----------------|

14.4. Packing group

| | |
|----------------------|-----------------|
| Packing group (ADR) | : II |
| Packing group (IMDG) | : II |
| Packing group (IATA) | : II |
| Packing group (ADN) | : Not regulated |
| Packing group (RID) | : Not regulated |

14.5. Environmental hazards


| | |
|-------------------------------|--|
| Dangerous for the environment | : No |
| Marine pollutant | : No |
| Other information | : No supplementary information available |

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14.6. Special precautions for user

- Overland transport

| | |
|---|---|
| Classification code (ADR) | : FC |
| Limited quantities (ADR) | : 1L |
| Excepted quantities (ADR) | : E2 |
| Packing instructions (ADR) | : P001, IBC02 |
| Mixed packing provisions (ADR) | : MP19 |
| Portable tank and bulk container instructions (ADR) | : T7 |
| Portable tank and bulk container special provisions (ADR) | : TP1 |
| Tank code (ADR) | : L4BH |
| Vehicle for tank carriage | : FL |
| Transport category (ADR) | : 2 |
| Special provisions for carriage - Operation (ADR) | : S2, S20 |
| Hazard identification number (Kemler No.) | : 338 |
| Orange plates | :  |
| Tunnel restriction code (ADR) | : D/E |
| EAC code | : •3WE |
| APP code | : A(fl) |

- Transport by sea

| | |
|---------------------------------|-------------|
| Limited quantities (IMDG) | : 1 L |
| Excepted quantities (IMDG) | : E2 |
| Packing instructions (IMDG) | : P001 |
| IBC packing instructions (IMDG) | : IBC02 |
| Tank instructions (IMDG) | : T7 |
| Tank special provisions (IMDG) | : TP1 |
| EmS-No. (Fire) | : F-E |
| EmS-No. (Spillage) | : S-C |
| Stowage category (IMDG) | : B |
| Stowage and handling (IMDG) | : SW2 |
| Flash point (IMDG) | : 12°C c.c. |

- Air transport

| | |
|--|--------|
| PCA Excepted quantities (IATA) | : E2 |
| PCA Limited quantities (IATA) | : Y340 |
| PCA limited quantity max net quantity (IATA) | : 0.5L |
| PCA packing instructions (IATA) | : 352 |
| PCA max net quantity (IATA) | : 1L |
| CAO packing instructions (IATA) | : 363 |
| CAO max net quantity (IATA) | : 5L |
| ERG code (IATA) | : 3C |

- Inland waterway transport

Not regulated

- Rail transport

Not regulated

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

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

No REACH Annex XVII restrictions

PROPIONYL CHLORIDE 98% EXTRA PURE is not on the REACH Candidate List

PROPIONYL CHLORIDE 98% EXTRA PURE is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 3; WGK No 8503)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Denmark

Class for fire hazard : Class I-1

Store unit : 1 liter

Classification remarks : F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

| | |
|---------------------------|---|
| Acute Tox. 3 (Inhalation) | Acute toxicity (inhal.), Category 3 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Skin Corr. 1 | Skin corrosion/irritation, Category 1 |
| H225 | Highly flammable liquid and vapour |
| H302 | Harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H331 | Toxic if inhaled |
| R11 | Highly flammable |

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| | |
|-----|-----------------------------|
| R14 | Reacts violently with water |
| R20 | Harmful by inhalation |
| R34 | Causes burns |
| C | Corrosive |
| F | Highly flammable |
| Xn | Harmful |

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