



MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification

1.1 Product identifiers

Product Name : 2-Chloropropionyl chloride
Cat No.: AC295160000; AC295160250; AC295161000;
AC295165000
CAS No. : 7623-09-8

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

Recommended uses : Laboratory chemicals
Uses advised against: Food, drug, pesticide or biocidal product use.

1.3 Details of the supplier of the safety data sheet

Company : Krishna Solvechem Limited.
B/503, Sahayog, S. V. Road,
Kandivali (West), Mumbai – 400067. India.
Telephone : +91-22-6123 0222
Email : exports@kscl.co.in

1.4 Emergency telephone number

Emergency Phone : +91-8657457330

SECTION 2: Hazards identification

2.1 Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 3
Acute oral toxicity	Category 4
Skin Corrosion/Irritation.	Category 1B
Serious Eye Damage/Eye Irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system.	

2.2 Label elements

Pictogram :



Signal word

Danger

Hazard statement (s)

Flammable liquid and vapor
Harmful if swallowed.



Causes severe skin burns and eye damage. May cause respiratory irritation.

Precautionary statement (s)

Prevention

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Keep away from heat/sparks/open flames/hot surfaces - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep cool.

Inhalation :

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF ON SKIN (or hair):

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

Eyes:

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

Storage:

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal:

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

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



SECTION 3: Composition / information on ingredients

3.1

Component	CAS-No	Weight %
2-Chloropropionyl chloride	7623-09-8	>94

SECTION 4: First aid measures

4.1 Description of first aid measures

General Advice:	Show this safety data sheet to the doctor in attendance. Immediate medical attention required.
If inhalation :	If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.
In case of skin contact :	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.
In case of eye contact :	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Ingestion :	Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately.

4.2 Most important symptoms	Causes burns by all exposure routes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.
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4.3 Notes to Physician :	Treat symptomatically
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SECTION 5: Firefighting effects

5.1 Extinguishing media

Suitable extinguishing media : Carbon dioxide (CO₂). Dry chemical. Chemical foam. Water mist may be used to cool closed containers. CO₂, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media: No information available

5.2 Flash Point :	34 °C / 93.2 °F
Method :	No information available



Autoignition Temperature:	510 °C / 950 °F
Explosion Limits:	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge:	No information available
Specific Hazards Arising from the Chemical:	Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Contact with water liberates toxic gas. Reacts violently with water. Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.
Hazardous Combustion Products :	Carbon monoxide (CO). Carbon dioxide (CO ₂). Phosgene. Hydrogen chloride gas.

5.4 Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA:

Health	Flammability	Instability	Physical hazards
3	3	2	W

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges

6.2 Environmental precautions

Should not be released into the environment.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Do not expose spill to water. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Do not allow contact with water. Handle under an inert atmosphere. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools.



Take precautionary measures against static discharges.

7.2 Conditions for safe storage

Keep away from heat, sparks and flame. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from water or moist air. Protect from moisture. Corrosives area. Incompatible Materials. Strong bases. Alcohols. Amines. Metals. Oxidizing agent.

SECTION 8: Exposure controls/personal protection

8.1 Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure Limits established by the region specific regulatory bodies.

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

8.2 Exposure controls

Personal protective equipment -

Eye / Face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical State	Liquid
b) Appearance	Light Yellow
c) Odour	Stench
d) Odour Threshold	No information available
e) pH	No information available
f) Melting point / freezing point	-71 °C / -95.8 °F
g) Initial boiling point and	109 - 111 °C / 228.2 - 231.8 °F @ 760 mmHg



boiling range	
h) Flash point	34 °C / 93.2 °F
i) Evaporation rate	No information available
j) Flammability (solid, gas)	Not applicable
k) Upper/lower flammability or explosive limits	No data available No data available
l) Vapour pressure	28 mbar @ 20 °C
m) Vapour density	Reacts violently with water
n) Specific Gravity	1.300
o) Solubility	No information available
p) Partition coefficient: n octanol/water	No data available
q) Auto-ignition temperature	510 °C / 950 °F
r) Decomposition temperature	No information available.
s) Viscosity	No information available
t) Molecular formula	C3 H4 Cl2 O
u) Molecular Weight	126.97

SECTION 10: Stability and Reactivity

10.1 Reactive Hazard :	Yes
10.2 Chemical stability :	Reacts violently with water. Contact with water liberates toxic gas.
10.3 Possibility of hazardous reactions :	Reacts violently with water.
10.4 Conditions to avoid :	Keep away from open flames, hot surfaces and sources of ignition. Incompatible products. Exposure to moist air or water. Exposure to moisture.
10.5 Incompatible materials:	Strong bases, Alcohols, Amines, Metals, Oxidizing agent.
10.6 Hazardous decomposition products :	Carbon monoxide (CO), Carbon dioxide (CO ₂), Phosgene, Hydrogen chloride gas
10.7 Hazardous Polymerization	Hazardous polymerization does not occur.



SECTION 11: Toxicological information

11.1

Information on toxicological effects

Acute toxicity:

Product Information:

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
2-Chloropropionyl chloride	642 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation : No information available

Sensitization: No information available

Carcinogenicity : The table below indicates whether each agency has any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
2-Chloropropionyl chloride	7623-09-8	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects: No information available.

Reproductive Effects: No information available.

Developmental Effects : No information available.

Teratogenicity: No information available.

STOT - single exposure : Respiratory system

STOT - repeated exposure: None known

Aspiration hazard : No information available.

Symptoms/effects, both acute and delayed Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

Endocrine Disruptor Information : No information available

Other Adverse Effects : The toxicological properties have not been fully investigated.



SECTION 12: Ecological information

12.1 Ecotoxicity:	Do not empty into drains. Do not flush into surface water or sanitary sewer system. Reacts with water so no ecotoxicity data for the substance is available.
12.2 Persistence and degradability:	Persistence is unlikely based on information available
Bioaccumulation/ Accumulation	No information available
12.3 Mobility:	Is not likely mobile in the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

14.1 UN number :	DOT: 2920 TDG: 2920 IMDG/IMO: 2920 IATA: 2920
14.2 UN proper shipping name	
DOT :	Corrosive liquid, flammable, n.o.s.
IMDG/IMO :	Corrosive liquid, flammable, n.o.s.
IATA :	Corrosive liquid, flammable, n.o.s.
TDG :	Corrosive liquid, flammable, n.o.s.
14.3 Transport hazard class(es)	DOT: 8 IMDG/IMO: 8 IATA: 8 TDG: 8
14.4 Subsidiary Hazard Class(es)	DOT: 3 IMDG/IMO: 3 IATA: 3 TDG: 3
14.5 Packaging group:	DOT: II IMDG/IMO: II IATA: II TDG:II

SECTION 15: Regulatory information

15.1 United states of America Inventory:

Component	CAS No	TSCA	TSCA Inventory notification -Active-Inactive	TSCA – EPA RegulatoryFlags
2-Chloropropionyl chloride	7623-09-8	X	ACTIVE	-

Legend:



TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories:

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
2-Chloropropionyl chloride	7623-09-8	-	X	231-540-7	X	X	X	X	KE-05885

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

15.2 U.S. State Right-to-Know Regulations: Not Applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N



U.S. Department of Homeland Security - This product does not contain the any DHS Chemicals.

Other International Regulations

Mexico – Grade No information available

Authorisation/Restrictions according to EU REACH

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
2-Chloropropionyl chloride	7623-09-8	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
2-Chloropropionyl chloride	7623-09-8	Not applicable	Not applicable	Not applicable	Not applicable

SECTION 16: Other information

16.1 Prepared By: Regulatory affairs
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Limited

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Revision Summary: This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 C FR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

16.2 Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.