

## SIGMA-ALDRICH

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## Material Safety Data Sheet

Version 5.0  
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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 2-Chloropropane

Product Number : C68563  
Brand : Aldrich

Supplier : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +1 800-325-5832  
Fax : +1 800-325-5052  
Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation  
Product Safety - Americas Region  
1-800-521-8956

## 2. HAZARDS IDENTIFICATION

## Emergency Overview

## OSHA Hazards

Flammable liquid, Target Organ Effect

## Target Organs

Liver, Nerves.

## GHS Classification

Flammable liquids (Category 1)

Acute toxicity, Oral (Category 5)

Acute toxicity, Inhalation (Category 4)

## GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H224 Extremely flammable liquid and vapour.

H303 May be harmful if swallowed.

H332 Harmful if inhaled.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

## HMIS Classification

Health hazard: 1

Chronic Health Hazard: \*

Flammability: 4

Physical hazards: 0

## NFPA Rating

Health hazard: 1

Fire: 4  
Reactivity Hazard: 0

## Potential Health Effects

Inhalation : May be harmful if inhaled. May cause respiratory tract irritation.

Skin : May be harmful if absorbed through skin. May cause skin irritation.

Eyes : May cause eye irritation.

Ingestion : May be harmful if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Isopropyl chloride

Formula : C<sub>3</sub>H<sub>7</sub>Cl

Molecular Weight : 78.54 g/mol

Component	Concentration
<b>2-Chloropropane</b>	
CAS-No.	75-29-6
EC-No.	200-858-8
Index-No.	602-018-00-X

## 4. FIRST AID MEASURES

## General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

## If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

## In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

## In case of eye contact

Flush eyes with water as a precaution.

## If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5. FIREFIGHTING MEASURES

## Conditions of flammability

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

## Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

## Further information

Use water spray to cool unopened containers.

## 6. ACCIDENTAL RELEASE MEASURES

## Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

#### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

#### Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### 7. HANDLING AND STORAGE

#### Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

#### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and open container with care.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
2-Chloropropane	75-29-6	TWA	50 ppm	USA. Workplace Environmental Exposure Levels (WEEL)

#### Personal protective equipment

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Full contact

Material: Fluorinated rubber  
Minimum layer thickness: 0.7 mm  
Break through time: 480 min  
Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

##### Splash contact

Material: Fluorinated rubber  
Minimum layer thickness: 0.7 mm  
Break through time: 480 min  
Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 if used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

##### Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin and body protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective

equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

Form liquid  
Colour no data available

#### Safety data

pH no data available  
Melting point/freezing point Melting point/range: -118 °C (-180 °F) - lit.  
Boiling point 34 - 36 °C (93 - 97 °F) - lit.  
Flash point -21 °C (-6 °F) - closed cup  
Ignition temperature no data available  
Auto-ignition temperature no data available  
Lower explosion limit 2.4 %(V)  
Vapour pressure 592.1 hPa (444.1 mmHg) at 20 °C (68 °F)  
1,937.6 hPa (1,453.3 mmHg) at 55 °C (131 °F)  
Density 0.859 g/cm3 at 25 °C (77 °F)  
Water solubility no data available  
Partition coefficient: n-octanol/water no data available  
Relative vapor density no data available  
Odour no data available  
Odour Threshold no data available  
Evaporation rate no data available

### 10. STABILITY AND REACTIVITY

#### Chemical stability

Stable under recommended storage conditions.

#### Possibility of hazardous reactions

Vapours may form explosive mixture with air.

#### Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

#### Materials to avoid

Strong oxidizing agents, Strong bases, Metals

#### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas  
Other decomposition products - no data available

### 11. TOXICOLOGICAL INFORMATION

**Acute toxicity****Oral LD50**

LD50 Oral - rat - 5,000 mg/kg

Remarks: Autonomic Nervous System:Other (direct) parasymphomimetic. Behavioral:Somnolence (general depressed activity). Cyanosis

**Inhalation LC50**

LC50 Inhalation - rat - 120,000 mg/m3

Remarks: Blood:Changes in leukocyte (WBC) count. Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:True cholinesterase. Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels: Transaminases.

**Dermal LD50**

no data available

**Other information on acute toxicity**

no data available

**Skin corrosion/irritation**

no data available

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

Genotoxicity in vitro - Histidine reversion (Ames)

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

no data available

**Teratogenicity**

no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.

**Signs and Symptoms of Exposure**

Cough, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Synergistic effects**

no data available

**Additional information**

RTECS: TX4410000

**12. ECOLOGICAL INFORMATION****Toxicity**

no data available

**Persistence and degradability**

no data available

**Bioaccumulative potential**

no data available

**Mobility in soil**

no data available

**PBT and vPvB assessment**

no data available

**Other adverse effects**

no data available

**13. DISPOSAL CONSIDERATIONS****Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

**Contaminated packaging**

Dispose of as unused product.

**14. TRANSPORT INFORMATION****DOT (US)**

UN number: 2356	Class: 3	Packing group: I
Proper shipping name: 2-Chloropropane		
Reportable Quantity (RQ):		
Marine Pollutant: No		
Poison Inhalation Hazard: No		

**IMDG**

UN number: 2356	Class: 3	Packing group: I	EMS-No: F-E, S-D
Proper shipping name: 2-CHLOROPROPANE			
Marine Pollutant: No			

**IATA**

UN number: 2356	Class: 3	Packing group: I
Proper shipping name: 2-Chloropropane		

**15. REGULATORY INFORMATION****OSHA Hazards**

Flammable liquid, Target Organ Effect

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Fire Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

	CAS-No.	Revision Date
2-Chloropropane	75-29-6	1993-04-24

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
2-Chloropropane	75-29-6	1993-04-24

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
2-Chloropropane	75-29-6	1993-04-24

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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**16. OTHER INFORMATION****Further Information**

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