

## Material Safety Data Sheet

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Version 1.3

According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

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1 - Product and Company Information

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Product Name	2-CHLOROPROPANE, 99%
Product Number	C68563
Company	Sigma-Aldrich Pty. Ltd. 12 Anella Avenue Castle Hill NSW 2154 Australia
Technical Phone #	+61 2 9841 0555 (1800 800 097)
Fax	+61 2 9841 0500 (1800 800 096)
Emergency Phone #	+44 8701906777 (1800 448 465)

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2 - Composition/Information on Ingredients

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Product Name	CAS #	EC no	Annex I Index Number
2-CHLOROPROPANE	75-29-6	200-858-8	602-018-00-X
Formula	C3H7Cl		
Molecular Weight	78.54 AMU		
Synonyms	Chlorodimethylmethane * Isoprid * Isopropylchloride * Narcosop * sec-Propyl chloride * 2-Propyl chloride		

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3 - Hazards Identification

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## SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Highly flammable. Harmful by inhalation, in contact with skin and if swallowed.

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4 - First Aid Measures

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## AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

## AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

## AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

## AFTER INGESTION

If swallowed, wash out mouth with water provided person is

conscious. Call a physician.

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## 5 - Fire Fighting Measures

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### EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

Unsuitable: Carbon Dioxide, dry chemical powder, or appropriate foam. Water can be applied as a spray or fog and if properly applied is capable of extinguishing the fire by sweeping the flames off the surface of the burning liquid.

### SPECIAL RISKS

Specific Hazard(s): Extremely flammable. Vapor may travel considerable distance to source of ignition and flash back.

Emits toxic fumes under fire conditions.

Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion can occur under fire conditions. In advanced or massive fires the area should be evacuated and the fire should be fought from a remote explosion-resistant location.

### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

### SPECIFIC METHOD(S) OF FIRE FIGHTING

Use water spray to cool fire-exposed containers.

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## 6 - Accidental Release Measures

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### PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

### METHODS FOR CLEANING UP

Ventilate area and wash spill site after material pickup is complete. Cover with an activated carbon adsorbent, take up and place in closed containers. Transport outdoors.

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## 7 - Handling and Storage

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### HANDLING

Directions for Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

### STORAGE

Conditions of Storage: Keep container closed. Keep away from heat, sparks, and open flame.

SPECIAL REQUIREMENTS: May develop pressure. Open carefully.

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## 8 - Exposure Controls / Personal Protection

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### ENGINEERING CONTROLS

Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

## GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

## PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

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## 9 - Physical and Chemical Properties

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Appearance	Physical State: Liquid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	35 °C	
MP/MP Range	-118 °C	
Flash Point	-21 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	Lower: 2.4 %	
Vapor Pressure	444.103 mmHg	20 °C
SG/Density	0.86 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

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## 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents, Strong bases.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen chloride gas.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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## 11 - Toxicological Information

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RTECS NUMBER: TX4410000

### ACUTE TOXICITY

LD50

Oral

Rat  
5000 mg/kg  
Remarks: Autonomic Nervous System:Other (direct)  
parasympathomimetic. Behavioral:Somnolence (general depressed  
activity). Lungs, Thorax, or Respiration:Cyanosis.

LC50  
Inhalation  
Rat  
120,000 mg/m3  
Remarks: Blood:Changes in leukocyte (WBC) count.  
Biochemical:Enzyme inhibition, induction, or change in blood or  
tissue levelsTrue cholinesterase. Biochemical:Enzyme inhibition,  
induction, or change in blood or tissue levels: Transaminases.

LD50  
Oral  
Mouse  
1300 mg/kg  
Remarks: Autonomic Nervous System:Other (direct)  
parasympathomimetic. Behavioral:Somnolence (general depressed  
activity). Lungs, Thorax, or Respiration:Cyanosis.

LC50  
Inhalation  
Mouse  
119,000 mg/m3

#### SIGNS AND SYMPTOMS OF EXPOSURE

Symptoms of exposure may include burning sensation, coughing,  
wheezing, laryngitis, shortness of breath, headache, nausea, and  
vomiting. To the best of our knowledge, the chemical, physical,  
and toxicological properties have not been thoroughly  
investigated.

#### ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.  
Skin Absorption: Harmful if absorbed through skin.  
Eye Contact: Causes eye irritation.  
Inhalation: Harmful if inhaled. Vapor or mist is irritating to  
the mucous membranes and upper respiratory tract.  
Ingestion: Harmful if swallowed.

#### TARGET ORGAN INFORMATION

Liver. Nerves.

#### CHRONIC EXPOSURE - MUTAGEN

ZPOS  
Histidine reversion (Ames)

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#### 12 - Ecological Information

No data available.

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#### 13 - Disposal Considerations

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#### SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose  
of this material. Burn in a chemical incinerator equipped with an  
afterburner and scrubber but exert extra care in igniting as this  
material is highly flammable. Observe all federal, state, and

local environmental regulations.

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## 14 - Transport Information

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### RID/ADR

UN#: 2356  
Class: 3  
PG: I  
Proper Shipping Name: 2-Chloropropane

### IMDG

UN#: 2356  
Class: 3  
PG: I  
Proper Shipping Name: 2-Chloropropane  
Marine Pollutant: No  
Severe Marine Pollutant: No

### IATA

UN#: 2356  
Class: 3  
PG: I  
Proper Shipping Name: 2-Chloropropane  
Inhalation Packing Group I: No

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## 15 - Regulatory Information

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### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 602-018-00-X  
NOTA: C  
INDICATION OF DANGER: F Xn  
Highly Flammable. Harmful.  
R-PHRASES: 11 20/21/22  
Highly flammable. Harmful by inhalation, in contact with skin  
and if swallowed.  
S-PHRASES: 9 29  
Keep container in a well-ventilated place. Do not empty into  
drains.

### COUNTRY SPECIFIC INFORMATION

#### Germany

WGK: 2 (self-classification)

#### SWITZERLAND

SWISS POISON CLASS: 3

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## 16 - Other Information

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### WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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