

Material Safety Data Sheet

Version 3.0
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 1,2-Dichlorobenzene

Product Number : 242764
Brand : Sigma-Aldrich

Company : Sigma-Aldrich Canada, Ltd
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CANADA

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : $C_6H_4Cl_2$
Molecular Weight : 147.00 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
1,2-Dichlorobenzene			
95-50-1	202-425-9	602-034-00-7	-

3. HAZARDS IDENTIFICATION**Emergency Overview****Target Organs**

Liver, Kidney, Central nervous system

WHMIS Classification

B3 Combustible Liquid
D1B
D2B

Combustible Liquid
Toxic by ingestion
Moderate skin irritant
Moderate respiratory irritant
Moderate eye irritant

HMIS Classification

Health Hazard: 2
Chronic Health Hazard: *
Flammability: 2
Physical hazards: 1

Potential Health Effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Skin May be harmful if absorbed through skin. Causes skin irritation.

Eyes
Ingestion

Causes eye irritation.
Toxic if swallowed.

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

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

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point 66.0 °C (150.8 °F) - closed cup

Ignition temperature 648 °C (1,198 °F)

Suitable extinguishing media

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

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

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.

Light sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
1,2-Dichlorobenzene	95-50-1	TWA	25 ppm	2006-11-29	Canada. British Columbia OEL
		STEL	50 ppm	2006-11-29	Canada. British Columbia OEL
		TWAE V	25 ppm	2005-12-17	Canada. Ontario OELs
		STEV	50 ppm	2005-12-17	Canada. Ontario OELs
		TWA	25 ppm 150 mg/m3	2007-01-01	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	50 ppm 301 mg/m3	2007-01-01	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		C	50 ppm 301 mg/m3	2006-12-29	Canada. Quebec OELs
Remarks	A substance which may not be recirculated in accordance with section 108				

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 ABEK (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.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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, clear

Colour colourless

Safety data

pH no data available

Melting point -18 - -17 °C (0 - 1 °F) - lit.

Boiling point 178 - 180 °C (352 - 356 °F) - lit.

Flash point	66.0 °C (150.8 °F) - closed cup
Ignition temperature	648 °C (1,198 °F)
Lower explosion limit	2.2 %(V)
Upper explosion limit	9.2 %(V)
Vapour pressure	2.1 hPa (1.6 mmHg) at 35.0 °C (95.0 °F) 1.6 hPa (1.2 mmHg) at 20.0 °C (68.0 °F)
Density	1.306 g/mL at 25 °C (77 °F)
Water solubility	no data available

10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents

Hazardous decomposition products

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

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - 500.0 mg/kg

LD50 Dermal - rabbit - > 10,000 mg/kg

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (1,2-Dichlorobenzene)

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Toxic if swallowed.
Target Organs	Liver, Kidney, Central nervous system,

Additional Information

RTECS: CZ4500000

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Bioaccumulation Lepomis macrochirus (Bluegill) - 14 d
Bioconcentration factor (BCF): 89

Ecotoxicity effects

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 1.58 mg/l - 96 h
 NOEC - Cyprinodon variegatus (sheepshead minnow) - 9.7 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates. Immobilization EC50 - Daphnia magna (Water flea) - 0.74 mg/l - 48 h

Toxicity to algae Growth inhibition LOEC - Scenedesmus subspicatus - 50 mg/l - 72 h

Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. 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: 1591 Class: 6.1 Packing group: III
Proper shipping name: o-Dichlorobenzene
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN-Number: 1591 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: ortho-DICHLOROBENZENE
Marine pollutant: No

IATA

UN-Number: 1591 Class: 6.1 Packing group: III
Proper shipping name: o-Dichlorobenzene

15. REGULATORY INFORMATION

DSL Status

All components of this product are on the Canadian DSL list.

WHMIS Classification

B3	Combustible Liquid	Combustible Liquid
D1B		Toxic by ingestion
D2B		Moderate skin irritant
		Moderate respiratory irritant
		Moderate eye irritant

16. OTHER INFORMATION

Further information

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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 Co., 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.