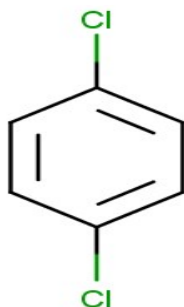


1. General Statement

1,4-Dichlorobenzene is an organic compound that is colorless solid and has a strong odor. The molecule consists of a benzene ring with two chlorine atoms

2. Chemical identity

Name : 1,4-dichlorobenzene
CAS number(s) : 106-46-7
EC number : 203-400-5
Molecular formula : C₆H₄Cl₂
Structure :



3. Uses and Benefits

1,4-Dichlorobenzene, or para-dichlorobenzene (p-DCB), is commonly used to control moths, molds, and mildew and as a bathroom deodorizer. It is also used as an intermediate in the synthesis of polyphenylene sulfide resin.

4. Physical / chemical properties

Property	Value
Physical state :	Solid
Colour :	colorless solid
Odour :	Irritating/pungent odour.
pH :	NA
Melting point	53 °C
Boiling point :	174 °C
Flash point :	66 °C

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Density :	1250 kg/m ³
Solubility in Water:	0.0083 g/100ml (25 °C)

5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	NA
Irritation / corrosion Skin / eye/ respiratory tract	Causes serious eye irritation.
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure Oral / inhalation / dermal	NA
Genotoxicity / Mutagenicity	NA
Carcinogenicity	Suspected of causing cancer.
Toxicity for reproduction	NA

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	Yes
Fate and behavior	Result
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Bioaccumulative potential	Potential for bioaccumulation ($500 \leq BCF \leq 5000$).

7. Exposure

Human health

The primary route of potential human exposure to this compound is inhalation. Acute inhalation exposure to 1,4-dichlorobenzene can result in coughing and breathing difficulties. Breathing high levels of this chemical can cause headaches, dizziness and liver damage. Contact with 1,4-dichlorobenzene can irritate the eyes, leading to burning and tearing. It is reasonably anticipated to be a human carcinogen.

The probability of exposure to workers is expected to be low because this product is manufactured in an enclosed controlled environment and is transported in well sealed containers.

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Workers may be exposed during (un)loading, mixing, sampling, analysis or maintenance operations and particularly in case of batch processes. The exposure must be kept as minimum as possible by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

Careless handling or accidental spillage of the chemical could result in exposure to potentially hazardous levels of chemicals.

Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

Environment

Substance is very toxic to aquatic life with long lasting effects. Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. Spillage shall be quickly collected in the event of an accidental release. 1,4-Dichlorobenzene is poorly soluble in water and is not easily broken down by soil organisms. Like many hydrocarbons, 1,4-Dichlorobenzene is lipophilic and will accumulate in fatty tissues if consumed by a person or animal. More information about release measures and accidental release measures are available in the extended safety data sheet.

8. Risk Management Recommendations

Human health measures

Organizational	A basic standard of occupational hygiene is recommended. Ensure operatives are well informed of the hazards and trained to minimise exposures. Ensure regular inspection and maintenance of equipment and machines. Handle and store according to the indications of the Safety Data Sheet.	
Protection	Eye protection:	Safety glasses
	Skin and body protection:	Wear suitable protective clothing
	Respiratory protection:	Combined gas/dust mask with filter type A/P2. Dust production: dust mask with filter type P3
Engineering controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.	
Environment protective measures		
Product must not be released into water without pre-treatment. Neutralize wastewater before release.		

9. First-aid measures

First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air. If you feel unwell, seek medical advice.

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First-aid measures after skin contact : After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Wash skin with plenty of water. Take off contaminated clothing and wash it before reuse.

First-aid measures after eye contact : Rinse eyes with water as a precaution. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

First-aid measures after ingestion :Get medical advice/attention if you feel unwell. Rinse the mouth out with water. If swallowed,seek medical advice immediately and show this container or label.

10. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Dry powder. Carbon dioxide. Foam.

Unsuitable extinguishing media : NA

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : On burning: release of toxic and corrosive gases/vapours (hydrogen chloride).

Advice for firefighters

Precautionary measures fire : Evacuate area. Eliminate all ignition sources if safe to do so. Keep the container closed when not in use.Stop leak if safe to do so. Eliminate all ignition sources if safe to do so. Keep away from combustible materials. Keep the container tightly closed and away from heat, sparks and flame.

Firefighting instructions : Do not enter a fire area without proper protective equipment, including respiratory protection.Prevent fire fighting water from entering the environment. Fight fire from a safe distance and protected location.

11. Accidental release measures

Protective equipment :Wear recommended personal protective equipment. Use self-contained breathing apparatus and chemically protective clothing

Environmental precautions: Avoid discharge to atmosphere. Do not allow entering drains or water courses. Do not allow products to spread into the environment. Prevent entry to sewers and public waters.

For containment : Collect spillage. This material and its container must be disposed of in a safe way, and as per local legislation.

12. Disposal consideration

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

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Sewage disposal recommendations : Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Hazardous waste shall not be mixed together with other waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.

13. Handling and storage

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Keep away from sources of ignition - No smoking. No open flames. No smoking. Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing. Handle and open the container with care. Handle carefully. Floors,walls and other surfaces in the hazard area must be cleaned regularly.

Hygiene measures : Always wash hands after handling the product. Remove contaminated clothes. Wear personal protective equipment.

14. Classification and Labeling

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

Hazard pictograms (CLP)



GHS07

GHS08

GHS09

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H319 - Causes serious eye irritation.

H351 - Suspected of causing cancer.

H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P264 - Wash hands thoroughly after handling.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

15. Conclusion

1,4-Dichlorobenzene is colorless solid and has a strong odor. The primary route of potential human exposure to this compound is inhalation. It is reasonably anticipated to be a human carcinogen. Substance is very toxic to

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aquatic life with long lasting effects. Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies. Spillage shall be quickly collected in the event of an accidental release.

16. Contact Information within company

Manufacturer

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This GPS safety summary is intended to give general information about the health, safety and environmental and not intended to provide in-depth details. To obtain the most accurate and current information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.