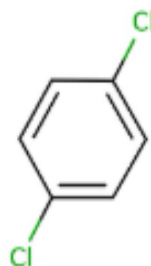


### 1. General Statement

1,4-Dichlorobenzene is an organic compound that is colorless solid and has a strong odour. The molecule consists of a benzene ring with two chlorine atoms. It is a combustible substance, poorly flammable (flash point > 60 up to 93 °C). Practically insoluble in water. Considerable sublimation at room temperature. Acute or chronic health hazards result from the substance. The substance is hazardous to the aquatic environment.

### 2. Chemical identity

Name : 1,4-dichlorobenzene  
 CAS number(s) : 106-46-7  
 EC number : 203-400-5  
 Molecular formula : C<sub>6</sub>H<sub>4</sub>Cl<sub>2</sub>  
 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 :	Colourless-white.
Odour :	Irritating/pungent odour. Camphor odour. Aromatic odour..
pH :	NA
Melting point	53 °C

## GPS Safety Summary

### 1,4-Dichlorobenzene

CL-4: PUBLIC

Boiling point :	174 °C
Flash point :	66 °C
Density :	1460 kg/m3 (20 °C)
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 ( $500 \leq \text{BCF} \leq 5000$ ).

### 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.

# GPS Safety Summary

## 1,4-Dichlorobenzene

**CL-4: PUBLIC**

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.

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		
Products must not be released into water without pre-treatment. Neutralize wastewater before release.		

## 9. First-aid measures

**First-aid measures after inhalation** : Remove the person to fresh air and keep comfortable for breathing. First-aid measures after skin contact : Wash skin with plenty of water.

# GPS Safety Summary

## 1,4-Dichlorobenzene

CL-4: PUBLIC

**First-aid measures after skin contact** : Wash skin with plenty of water.

**First-aid measures after eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**First-aid measures after ingestion** : Call a poison center or a doctor if you feel unwell.

### 10. Fire-fighting measures

#### **Extinguishing media**

**Suitable extinguishing media** : Water spray. Dry powder. Foam.

**Unsuitable extinguishing media** : Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

#### **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** : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.

**Firefighting instructions** : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.

### 11. Accidental release measures

**Protective equipment** : Do not attempt to take action without suitable protective equipment. Safety glasses. Self-contained breathing apparatus. Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product. Wear recommended personal protective equipment.

**Environmental precautions**: Avoid release to the environment.

**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.

**Sewage disposal recommendations** : Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of an authorized waste collection point. Hazardous waste shall not be mixed together with other waste. Hazardous waste shall be managed responsibly. All

# GPS Safety Summary

## 1,4-Dichlorobenzene

CL-4: PUBLIC

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** :Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle it until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes.

**Hygiene measures** : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 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.

### 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 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**

Aarti Industries Limited

Udyog Kshetra, 2nd Floor, Mulund Goregaon Link Road, Mulund (West)

400080 Mumbai - India

## **GPS Safety Summary**

### **1,4-Dichlorobenzene**

**CL-4: PUBLIC**

---

T +91-22-6797-6666 - F +91-22-2565 3234  
info@aarti-industries.com - www.aarti-industries.com

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.