GPS Safety Summary
1,3-Dichlorobenzene

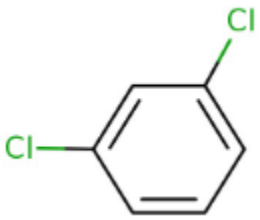
Reference number: AIL-GPS-060 Issue date: 03/04/2025 Version: 1.0 **CL-4: PUBLIC**

1. General Statement

1,3-Dichlorobenzene is a colorless to tinted liquid, pleasant aromatic odour. Practically insoluble in water. Miscible with alcohol and ether.combustible substances are poorly flammable (flash point > 60 up to 93 °C).Vapours may form explosive mixtures with air when the substance is heated above its flash point.Very slightly soluble in water.Heavier than water.Low or very low-volatile.Acute or chronic health hazards result from the substance.The substance is hazardous to the aquatic environment.

2. Chemical identity

Name :1,3-Dichlorobenzene
CAS number(s) :541-73-1
EC number :208-792-1
Molecular formula :C6H4Cl2
Structure :



3. Uses and Benefits

1,3-Dichlorobenzene is used as an intermediate step in further manufacturing of another substance.This substance is used in the following products such as laboratory chemicals.It is also Used as a fumigant and insecticide.

4. Physical / chemical properties

Property	Value
Physical state :	Liquid
Colour :	Colourless
Odour :	Irritating/pungent odour Aromatic odour
pH :	No data available
Melting point :	-22 °C (1013 hPa)
Boiling point :	173 °C (1013 hPa)

GPS Safety Summary

1,3-Dichlorobenzene

CL-4:PUBLIC

Flash point :	63 °C (closed cup)
Density :	1.29 g/cm3
Solubility in Water:	103 mg/kg at 10 °C,120 mg/kg at 25 °C,141 mg/kg at 45 °C

5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Toxic if swallowed
Irritation / corrosion Skin / eye/ respiratory tract	NA
Respiratory or skin sensitisation	NA
Toxicity after repeated exposure Oral / inhalation / dermal	NA
Genotoxicity / Mutagenicity	NA
Carcinogenicity	NA
Toxicity for reproduction	NA

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	Yes
Fate and behavior	**Result**
Persistence and degradability	Persistence in Water/Soil is HIGH (Half-life = 360 days) and in Air is LOW (Half-life = 37.13 days)Non degradable in the soil. Not readily biodegradable in water.
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

7. Exposure

Human health

1,3-Dichlorobenzene is Toxic if swallowed.may be hepatotoxic and nephrotoxic effects by m-DCB should be expected.Chronic inhalation exposure to dichlorobenzenes (DCBs) may cause changes to liver and kidney and haematological (blood) disorders. There is some evidence to suggest a link between leukaemia and exposure to dichlorobenzenes. [NIOSHTIC].Workers who were chronically exposed to 1,4-DCB vapor experienced

irritation of the nose and eyes and case reports of people who inhaled or ingested 1,4-DCB suggest that the liver, nervous system, and haematopoietic system are systemic targets in humans.The exposure must be kept as minimum as possible by the use of appropriate risk management measures a 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

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. 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 with side shields,Chemical goggles, Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.
	Skin and body protection:	Protective clothing (EN 14605 or EN 13034)
	Respiratory protection:	Full face mask with filter type A at conc. in air > exposure limit
Engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.The basic types of engineering controls are:Process controls which involve changing the way a job activity or process is done to reduce the risk.Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.	
Environment protective measures		
Avoid release to the environment.		

9. First-aid measures

First-aid measures after inhalation: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact: Rinse with water. Soap may be used. Do not apply (chemical) neutralizing agents without medical advice. Take the victim to a doctor if irritation persists.

First-aid measures after eye contact: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply (chemical) neutralizing agents without medical advice.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Do not apply (chemical) neutralizing agents without medical advice. Call Poison Information Centre (www.big.be/antigif.html). Consult a doctor/medical service if you feel unwell.Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital.

10. Fire-fighting measures

Extinguishing media
Suitable extinguishing media**:**Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (not alcohol-resistant).

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 heating/burning: release of toxic and corrosive gases/vapours (chlorine, hydrogen chloride, phosgene, carbon monoxide - carbon dioxide).

Advice for firefighters
Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.

Firefighting instructions : Cool tanks/drums with water spray/remove them into safety. Dilute toxic gases with water spray.Take account of toxic/corrosive precipitation water. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

11. Accidental release measures

Protective equipment : Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).

Environmental precautions : Prevent soil and water pollution. Prevent spreading in sewers.

For containment : Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply.Dam up the liquid spill.

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 : Disposal must be done according to official regulations.

13. Handling and storage

Precautions for safe handling: Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. In a finely divided state: use spark-/explosionproof appliances. Finely divided: keepaway from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep the container tightly closed.

Hygiene measures: Observe normal hygiene standards..

14. Classification and Labeling

Hazard pictograms (GHS US)	:	
Signal word (GHS US)	:	Warning
Hazard statements (GHS US)	:	H302 - Harmful if swallowed
Precautionary statements (GHS US)	:	P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell. P330 - Rinse mouth. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

15. Conclusion

1,3-Dichlorobenzene is a colorless to tinted liquid, pleasant aromatic odour. Practically insoluble in water. Miscible with alcohol and ether.combustible substances are poorly flammable (flash point > 60 up to 93 °C).Vapours may form explosive mixtures with air when the substance is heated above its flash point.Very slightly soluble in water.Heavier than water.Low or very low-volatile.Acute or chronic health hazards result from the substance.The substance is hazardous to the aquatic environment.It is toxic if swallowed.may be hepatotoxic and nephrotoxic effects by m-DCB should be expected.Chronic inhalation exposure to

dichlorobenzenes (DCBs) may cause changes to liver and kidney and haematological (blood) disorders. .Care should be taken to avoid releases of these products to sewage, drainage systems and water bodies.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.

16. Contact Information within company

Manufacturer
Aarti Industries Limited
Udyog Kshetra, 2nd Floor, Mulund Goregaon Link Road, Mulund (West)
400080 Mumbai - India
T +91-22-6797-6666 - F +91-22-2565 3234
info@aarti-industries.com - www.aarti-industries.com