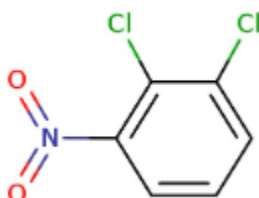


1. General Statement

2,3-Dichloronitrobenzene is a yellow solid. It is a combustible substance, poorly flammable. Practically insoluble in water. Acute or chronic health hazards result from the substance. The substance is hazardous to the aquatic environment.

2. Chemical identity

Name : 2,3-Dichloronitrobenzene
 CAS number(s) : 3209-22-1
 EC number : 221-717-7
 Molecular formula : C₆H₃Cl₂NO₂
 Structure :



3. Uses and Benefits

2,3-Dichloronitrobenzene is used as an industrial use resulting in manufacture of another substance (use of intermediates). This substance is used for the manufacture of: chemicals. Release to the environment of this substance can occur from industrial use: as an intermediate step in further manufacturing of another substance (use of intermediates).

4. Physical / chemical properties

Property	Value
Physical state :	Solid
Colour :	Colourless to light yellow
Odour :	Mild odour Aromatic odour
pH :	NA
Melting point :	62 °C
Boiling point :	258 °C (1013 hPa)
Flash point :	123 °C
Density :	1449 kg/m ³

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Solubility in Water:	0.0067 g/100ml
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5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Toxic if swallowed or if inhaled
Irritation / corrosion Skin / eye/ respiratory tract	May cause an allergic skin reaction
Respiratory or skin sensitisation	Harmful in contact with skin
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	No
Fate and behavior	Result
Persistence and degradability	Non degradable in the soil. Not readily biodegradable in water.
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

7. Exposure

Human health

Under occupational conditions, the main intake pathways for 1,2-dichloro-3-nitrobenzene (D.) are assumed to be in particular via inhalation or by absorption through the skin. Symptomatic patients with methaemoglobin levels over 30% should receive methylene blue. (Cyanosis alone, is not an indication for treatment). The usual dose is 1-2 mg/kg of a 1% solution (10 mg/ml) IV over 5 minutes; repeat, using the same dose if symptoms of hypoxia fail to subside within 1 hour. 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

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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:	Face shield (EN 166). In case of dust production: protective goggles (EN 166)
	Skin and body protection:	Protective clothing (EN 14605 or EN 13034). In case of dust production: head/neck protection. In case of dust production: dustproof clothing (EN13982)
	Respiratory protection:	Dust production: dust mask with filter type P2
Engineering controls	No Additional Information Available	
Environment protective measures		
Avoid release to the environment.		

9. First-aid measures

First-aid measures after inhalation Assure fresh air breathing. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact: If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.

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First-aid measures after eye contact :Rinse immediately with (lukewarm) water. Remove contact lenses, if present and easy to do.Continue rinsing. If irritation persists, consult a doctor/medical service.

First-aid measures after ingestion :Rinse mouth with water. Immediately consult a doctor/medical service. Do not wait for symptoms to occur to consult the Poison Center.

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 burning: release of toxic and corrosive gases/vapours (nitrous vapours, hydrogen chloride,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: have neighbourhood close doors and windows.

Firefighting instructions :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

11. Accidental release measures

Protective equipment :Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Dust cloud production: self-contained breathing apparatus (EN 136 + EN 137). Dust cloud production: dust-tight suit (EN 13982).

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 solid spill. Knock down/dilute dust clouds with water spray. Powdered form: no compressed air for pumping over spills..

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 : Disposal must be done according to official regulations.

13. Handling and storage

Precautions for safe handling: Avoid raising dust. Keep away from naked flames/heat. In a finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. 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. Keep the container tightly closed. Do not discharge the waste into the drain. Powdered form: no compressed air for pumping over.

Hygiene measures: Observe very strict hygiene - avoid contact.

14. Classification and Labeling

Hazard pictograms (GHS US)

:



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H301+H331 - Toxic if swallowed or if inhaled

H312 - Harmful in contact with skin

H317 - May cause an allergic skin reaction

Precautionary statements (GHS US)

: P261 - Avoid breathing dust, fume, gas, mist, spray, vapors.

P264 - Wash hands, forearms and face thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P272 - Contaminated work clothing must not be allowed out of the workplace.

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

P301+P310 - If swallowed: Immediately call a POISON CENTER, a doctor.

P302+P352 - If on skin: Wash with plenty of water.

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.

P311 - Call a POISON CENTER, a doctor.

P312 - Call a POISON CENTER, a doctor if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P322 - Specific treatment (see Label, supplemental first aid instruction on this label)

P330 - Rinse mouth.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P363 - Wash contaminated clothing before reuse.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

15. Conclusion

2,3-Dichloronitrobenzene can react dangerously with: Bases amines oxidizing agents dimethylacetamide + acetic acid + potassium fluoride + heat. The hot molten mass forms vapours that may be explosive with

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air. Symptoms of vasodilation and reflex tachycardia may present following organic nitrate overdose; most organic nitrates are extensively metabolised by hydrolysis to inorganic nitrites. Organic nitrates and nitrites are readily absorbed through the skin, lungs, mucosa and gastro-intestinal tract. The toxicity of nitrates and nitrites result from their vasodilating properties and their propensity to form methaemoglobin. 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

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.