

GPS Safety Summary 3.4-Dichloronitrobenzene

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1. General Statements

3,4-Dichloronitrobenzene is a crystalline yellow solid which is Characteristic odour. It is a Combustible substance, poorly flammable. Very slightly soluble in water. Acute or chronic health hazards result from the substance. The substance is hazardous to the aquatic environment.

2. Chemical identification.

Name :3,4-Dichloronitrobenzene

CAS number(s) :99-54-7
EC number :202-764-2
Molecular formula :C6H3Cl2NO2

Structure :

3. Uses and Benefits

This substance has an industrial use resulting in manufacture of another substance (use of intermediates).

4. Physical / chemical properties

Property	Value	
Physical state :	Solid	
Colour :	Colourless to yellow-brown	
Odour :	Characteristic odour	
pH:	6.9 (0.01 %)	
Melting point :	195 °C	
Boiling point :	255.5 °C	
Flash point :	124 °C (Closed cup, 1013 hPa)	
Density:	1,48 g/cm³ at 55°C	
Solubility in Water:	140 mg/L	

5. Health Effects

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Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Toxic if swallowed or if inhaled
Irritation / corrosion Skin / eye/ respiratory tract	Harmful in contact with skin, May cause an allergic skin reaction
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	Non degradable in the soil. Biodegradable in the soil under anaerobic conditions. Not readily biodegradable in water. Readily biodegradable in water in anaerobic conditions.
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

7. Exposure

Human health

3,4-Dichloronitrobenzene isToxic if swallowed or if inhaled.Harmful in contact with skin,May cause an allergic skin reaction. The exposure must be kept as minimum as possible by the use of appropriate risk management measures 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.

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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:	[In case of inadequate ventilation] wear respiratory protection.		
Engineering controls	Ensure good ventilation of the work station.			
Environment protective measures				
Avoid release to the environment				

9. First-aid measures

First-aid measures after inhalation:Remove the person to fresh air and keep them comfortable for breathing. Take medical advice.

First-aid measures after skin contact: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs:

First-aid measures after eye contact: Rinse eyes with water as a precaution.

First-aid measures after ingestion: Rinse mouth. Call a physician immediately.

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 (nitrous vapours, hydrogen chloride, carbon monoxide - carbon dioxide).

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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: 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: Avoid release to the environment.

For containment: Collect spillage.

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: Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray Do not get in eyes, on skin, or on clothing. Wear personal protective equipment.

Hygiene measures:Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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14. Classification and Labeling

Hazard pictograms (GHS US)







Signal word (GHS US)

Precautionary statements (GHS US)

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

H410 - Very toxic to aquatic life with long lasting effects P261 - Avoid breathing dust, fume, gas, mist, vapours, spray.

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.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing

protection.

P301+P310 - If swallowed: Immediately call a poison center or 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 or doctor.

P312 - Call a poison center or doctor if you feel unwell.

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

P330 - Rinse mouth.

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

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

P391 - Collect spillage.

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

P405 - Store locked up.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulations.

15. Conclusion

3,4-Dichloronitrobenzene is a crystalline yellow solid which is Characteristic odour. It is a Combustible substance, poorly flammable. Very slightly soluble in water. Acute or chronic health hazards result from the substance. The substance is hazardous to the aquatic environment. There is a risk of a dust explosion if the following conditions are met: The substance is given in very finely distributed form (powder, dust). The substance is whirled up in sufficient quantities in the air. An ignition source is present (flame, spark, electrostatic discharge, etc.) The substance 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 air. 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)

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This GPS safety summary is intended to give general information about the health, safety and environment 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.