

GPS Safety Summary 2-Chloro-4-nitroaniline

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1. General Statement

2-Chloro-4-nitroaniline is a yellow crystalline solid.faint aromatic odour.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 identity

Name : 2-Chloro-4-nitroaniline

CAS number(s) :121-87-9 EC number : 204-502-2 Molecular formula :C6H5CIN2O2

Structure :

3. Uses and Benefits

2-Chloro-4-nitroaniline has an industrial use resulting in manufacture of another substance (use of intermediates). in the synthesis of dyes and pigments, particularly azo dyes.

4. Physical / chemical properties

Property	Value
Physical state :	Solid
Colour :	Yellow
Odour :	Characteristic odour
рН:	7 (0.023 g/100 ml, 20 °C)
Melting point	108 °C (1013 hPa)
Boiling point :	298 °C (1013 hPa)
Flash point :	205 °C (1013 hPa)
Density:	1.38 g/cm³
Solubility in Water:	at 20 °C

5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Harmful 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	No
Fate and behavior	Result
Persistence and degradability	Not readily biodegradable in water.
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

7. Exposure

Human health

The substance is harmful if swallowed. Slight irritative potential; disturbances to the blood function. 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).

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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 (EN 166). In case of dust production: protective goggles (EN 166)
	Skin and body protection:	Protective clothing (EN 14605 or EN 13034)
	Respiratory protection:	Dust production: dust mask with filter type P2.
Engineering controls	No additional information available	
Environment protective measures		
Products must not be released into water without pre-treatment.		

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. Do not apply (chemical) neutralizing agents without medical advice. Soap may be used. 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. 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. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.

Unsuitable extinguishing media: Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.

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: 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). Dust cloud production: self-contained breathing apparatus (EN 136 + EN 137). Reactivity hazard: self-contained breathing apparatus (EN 136 + EN 137). Reactivity hazard: gas-tight suit (EN 943).

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. If reacting: dilute toxic gas/vapour with water spray. Take account of toxic/corrosive precipitation water.

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

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Precautions for safe handling: Avoid raising dust. Take precautions against electrostatic charges. 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. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Powdered form: no compressed air for pumping over. Keep the container tightly closed.

Hygiene measures: Observe normal hygiene standards.

14. Classification and Labeling

Hazard pictograms (GHS US)

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Signal word (GHS US)

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

2-Chloro-4-nitroaniline is a yellow crystalline solid.faint aromatic odour.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.Substances predicted as likely to meet criteria for category 1A or 1B carcinogenicity, mutagenicity, or reproductive toxicity, or with dispersive or diffuse use(s) where predicted likely to meet any classification criterion for health or environmental hazards, or where there is a nanoform soluble in biological and environmental media.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

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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.