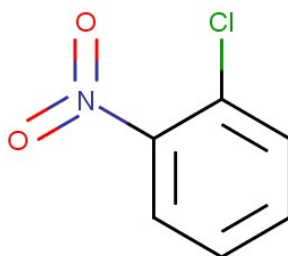


1. General Statement

2-Nitrochlorobenzene is an organic compound. It is a yellow crystalline solid which is mainly used as a precursor to other compounds due to its two functional groups.

2. Chemical identity

Name : 2-nitrochlorobenzene
 CAS number(s) : 88-73-3
 EC number : 201-854-9
 Molecular formula : C₆H₄ClNO₂
 Structure :



3. Uses and Benefits

The compound is particularly useful because both of its reactive sites can be utilized to create further compounds that are mutually ortho. It is used as an intermediate in the manufacture of o-aminophenol. 2-Nitrochlorobenzene derivatives find many outlets in the synthesis of colorants and effect chemicals.

4. Physical / chemical properties

Property	Value
Physical state :	Solid
Colour :	Yellow-green.
Odour :	Aromatic odour. Characteristic odour.
pH :	No data available
Melting point	33 °C
Boiling point :	246 °C (1000 hPa)
Flash point :	123 °C (Closed cup, 1013 hPa)
Density :	1370 kg/m ³ (22 °C)
Solubility Water:	0.0441 g/100ml (20 °C)

GPS Safety Summary

2-Nitrochlorobenzene

CL-4: PUBLIC

5. Health Effects

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Toxic if swallowed, contact with skin & if inhaled.
Irritation / corrosion Skin / eye/ respiratory tract	NO
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Toxicity after repeated exposure Oral / inhalation / dermal	Causes damage to organs through prolonged or repeated exposure.
Genotoxicity / Mutagenicity	NO
Carcinogenicity	Suspected of causing cancer.
Toxicity for reproduction	Suspected of damaging fertility or the unborn child.

6. Environmental Effects

Effect Assessment	Result
Aquatic toxicity	Yes
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

The substance is suspected of causing cancer , suspected of damaging fertility or the unborn child and also causes damage to organs through prolonged or repeated exposure.

The most likely route of human exposure (workers) is through skin. In industrial settings, ingestion is not an anticipated route of exposure.

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).

GPS Safety Summary

2-Nitrochlorobenzene

CL-4: PUBLIC

Environment

Substance is 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. 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:	Wear an appropriate mask. Self-contained breathing apparatus
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		
Product must not be released into water without pre-treatment.		

9. First-aid measures

First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air. If you feel unwell, seek medical advice.

First-aid measures after skin contact : After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Get medical advice/attention if you feel unwell.

First-aid measures after ingestion : If you feel unwell, seek medical advice. If swallowed, seek medical advice immediately and show this container or label. Rinse the mouth out with water.

10. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Dry chemical, CO₂, or water spray or regular foam.

GPS Safety Summary

2-Nitrochlorobenzene

CL-4: PUBLIC

Unsuitable extinguishing media : NA

Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : On burning: release of toxic and corrosive gases/vapours.

Advice for firefighters

Precautionary measures fire : Keep away from combustible materials. Keep the container tightly closed and away from heat, sparks and flame.

Firefighting instructions : Do not enter a fire area without proper protective equipment, including respiratory protection. Prevent fire fighting water from entering the environment. Fight fire from a safe distance and protected location.

11. Accidental release measures

Protective equipment :Wear recommended personal protective equipment. Use self-contained breathing apparatus and chemically protective clothing.

Environmental precautions: Avoid release to the environment. Prevent entry to sewers and public waters. Do not allow entering drains or water courses.

For containment : Clean contaminated surfaces with an excess of 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 : Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Hazardous waste shall not be mixed together with other waste. Hazardous waste shall be managed responsibly. All 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 : Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Use personal protective equipment as required. Handle and open the container with care. Keep away from sources of ignition - No smoking. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Handle carefully. Handle and open the container with care.

GPS Safety Summary

2-Nitrochlorobenzene

CL-4: PUBLIC

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product. Wear personal protective equipment. Remove contaminated clothes.

14. Classification and Labeling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS06

GHS08

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled.
H317 - May cause an allergic skin reaction.
H351 - Suspected of causing cancer.
H361 - Suspected of damaging fertility or the unborn child.
H372 - Causes damage to organs through prolonged or repeated exposure.
H412 - Harmful 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.
P260 - Do not breathe dust.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.

15. Conclusion

O-nitrochlorobenzene appears as yellow crystals with an aromatic odor. The substance is suspected to cause cancer and suspected of damaging fertility or the unborn child. 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

GPS Safety Summary

2-Nitrochlorobenzene

CL-4: PUBLIC

information, consult the appropriate Safety Data Sheet (SDS) prior to use of the material named herein.