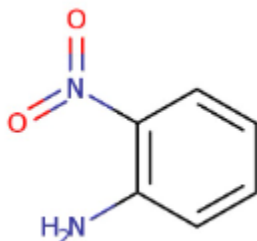


1. General Statements

2- Nitroaniline is crystalline, orange colour solid. It is a Mild odour Aromatic odour Almond odour. It is a Combustible substance, poorly flammable. Nitroaniline can self ignite when affected by moisture while in contact with organic substances. 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 : 2- Nitroaniline
CAS number(s) : 88-74-4
EC number : 201-855-4
Molecular formula : C₆H₆N₂O₂
Structure :



3. Uses and Benefits

It is used in the manufacture of dyes, intermediate for antioxidants, gum inhibitors, corrosion inhibitors.

4. Physical / chemical properties

Property	Value
Physical state :	Liquid.
Colour :	Yellow
Odour :	Mild odour Aromatic odour Almond odour
pH :	6 – 8
Melting point :	-9 °C
Boiling point :	222 °C (1013 hPa)
Flash point :	95 °C (Closed cup, 1013 hPa)
Density :	1163 kg/m ³
Solubility in Water:	0.044 g/100ml

GPS Safety Summary

2- Nitroaniline

CL-4:PUBLIC

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	May cause genetic defects
Carcinogenicity	May cause cancer
Toxicity for reproduction	Suspected of damaging fertility or the unborn child

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

2- Nitroaniline is toxic if swallowed, is toxic in contact with skin, is toxic if inhaled, may cause damage to organs through prolonged or repeated exposure and is harmful to aquatic life with long lasting effects. It may cause genetic defects and cancer. Suspected of damaging fertility or the unborn child. 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).

GPS Safety Summary

2- Nitroaniline

CL-4:PUBLIC

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)
	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. High vapour/gas concentration: self-contained breathing apparatus (EN 136 + EN 137)
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 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. 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. Doctor: gastric lavage.

GPS Safety Summary

2- Nitroaniline

CL-4:PUBLIC

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, 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 toxic fire-fighting 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.

GPS Safety Summary

2- Nitroaniline

CL-4:PUBLIC

13. Handling and storage

Precautions for safe handling:Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosion proof appliances. 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. Clean contaminated clothing. Do not discharge the waste into the drain. Keep the container tightly closed.

Hygiene measures :Observe strict hygiene.

14. Classification and Labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H302 - Harmful if swallowed

H340 - May cause genetic defects

H350 - May cause cancer

H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS US)

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

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

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

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

P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P330 - Rinse mouth.

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- Nitroaniline is crystalline, orange colour solid. It is a Mild odour Aromatic odour Almond odour. It is Combustible substance, poorly flammable. Nitroaniline can self ignite when affected by moisture while in contact with organic substances. 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 quantity in the air. An ignition source is present (flame, spark, electrostatic discharge, etc.). 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.

GPS Safety Summary

2- Nitroaniline

CL-4:PUBLIC

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 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.