GPS Safety Summary
3-Nitrotoluene

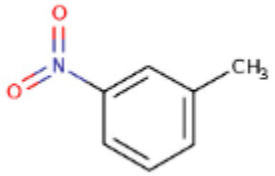
Reference number: AIL-GPS-097 Issue date: 24/04/2025 Version: 1.0 **CL-4: PUBLIC**

1. General Statements

3-Nitrotoluene is a yellow liquid which is a Mild / Aromatic odour. Combustible substance, poorly flammable.Very slightly soluble in water.Heavier than water.Low or very low-volatile.Acute or chronic health hazards result from the substance.The substance is hazardous to the aquatic environment.

2. Chemical identification.

Name :3-Nitrotoluene
CAS number(s) :99-08-1
EC number :202-728-6
Molecular formula :C7H7NO2
Structure :



3. Uses and Benefits

This substance is used for the manufacture of: chemicals and Organic syntheses. [~Intermediate ~]

4. Physical / chemical properties

Property	Value
Physical state :	Liquid
Colour :	Yellow
Odour :	Mild odour Aromatic odour
pH :	NA
Melting point :	16 °C
Boiling point :	232 °C (1013 hPa)
Flash point :	106 °C (Closed cup, 1013 hPa)
Density :	1157 kg/m3
Solubility in Water:	0.0419 g/100ml

5. Health Effects

GPS Safety Summary

3-Nitrotoluene

CL-4:PUBLIC

Effect Assessment	Result
Acute toxicity (Oral / inhalation / dermal)	Toxic if swallowed, in contact with skin or if inhaled
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	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

3-Nitrotoluene isToxic if swallowed, in contact with skin or if inhaled.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.

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)
	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.
Engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.	
Environment protective measures		
Avoid release to the environment		

9. First-aid measures

First-aid measures after inhalation: Remove the victim into fresh air. Immediately consult a doctor/medical service.

First-aid measures after skin contact::Wash immediately with lots of water. Do not apply (chemical) neutralizing agents without medical advice. Consult a doctor/medical service.

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. Victim is fully conscious: immediately induce vomiting. Do not apply (chemical) neutralizing agents without medical advice. Immediately consult a doctor/medical service. Call Poison Information Centre (www.big.be/antigif.html). 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. 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). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). Large spills/in enclosed spaces: self-contained breathing apparatus (EN 136 + EN 137). Large spills/in enclosed spaces: 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 liquid spill. Heat exposure: 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

Precautions for safe handling: Keep away from naked flames/heat. In a finely divided state: use spark-/explosionproof appliances. Finely divided: keep away 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.Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep the container tightly closed.

Hygiene measures: Observe strict hygiene

GPS Safety Summary
3-Nitrotoluene
CL-4:PUBLIC

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14. Classification and Labeling

Hazard pictograms (GHS US)	:	
Signal word (GHS US)	:	Danger
Hazard statements (GHS US)	:	H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
Precautionary statements (GHS US)	:	P261 - Avoid breathing dust/fume/gas/mist/vapors/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. P280 - Wear protective gloves/protective clothing/eye protection/face 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). P322 - Specific treatment (see supplemental first aid instruction on this label) P330 - Rinse mouth. P361+P364 - Take off immediately all contaminated clothing and wash it 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

3-Nitrotoluene is a yellow liquid which is a Mild / Aromatic odour. Combustible substance, poorly flammable.Very slightly soluble in water.Heavier than water.Low or very low-volatile.Acute or chronic health hazards result from the substance.Thermal decomposition Decomposition when heated. Explosion possible.Risk of explosion in contact with:bases,reducing agents,distillation,dibenzoyl peroxide,sulfuric acid (heat),sulfur trioxide.The substance can react dangerously with:ammonia,sodium,sodium hydroxide,strong oxidizing agents,strong acids.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

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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.