

GPS Safety Summary 3-nitrotoluene (MNT 96 % + ONT 3 % + PNT 1%)

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1. General Statements

3-nitrotoluene (MNT 96 % + ONT 3 % + PNT 1%) is a yellow liquid characteristic 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 (MNT 96 % + ONT 3 % + PNT 1%)

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

Structure :

3. Uses and Benefits

MNT is a key precursor in the production of azo dyes and pigments. Its derivatives are used in the synthesis of herbicides and pesticides. It is also used to produce antioxidants and vulcanization accelerators in rubber processing

4. Physical / chemical properties

Property	Value	
Physical state :	Liquid	
Colour :	yellow	
Odour :	Mild odour Aromatic odour	
pH:	NA	
Melting point :	16 °C (considering MNT)	
Boiling point :	232 °C (1013 hPa) , (considering MNT)	
Flash point :	106 °C (Closed cup, 1013 hPa), (considering MNT)	
Density:	1157 kg/m3 , (considering MNT)	
Solubility in Water:	Insoluble in water.	

5. Health Effects

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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	May cause damage to organs through prolonged or repeated exposure
Genotoxicity / Mutagenicity	May cause genetic defects.
Carcinogenicity	It 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

3-nitrotoluene (MNT 96 % + ONT 3 % + PNT 1%) is Toxic if swallowed, in contact with skin or if inhaled.May cause damage to organs through prolonged or repeated exposure. It may cause genetic defects. It may cause cancer. It suspected of damaging fertility or the unborn childThe 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 insufficient ventilation, wear suitable respiratory equipment.	
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. Remove/Take off immediately all contaminated clothing..

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. Carbon dioxide.

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 - 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.

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Firefighting instructions : Fight fire from safe distance and protected location. Do not enter a 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). 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: Avoid release to the environment. Notify authorities if a product enters sewers or public waters.

For containment: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leaks without risks if possible.

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: Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle it until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product in the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

Hygiene measures: Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. 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)

Hazard statements (GHS US)

Precautionary statements (GHS US)

: Danger

: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled

H340 - May cause genetic defects.

H350 - May cause cancer.

H361 - Suspected of damaging fertility or the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

: P201 - Obtain special instructions before use.

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

P260 - Do not breathe dust, fume, gas, mist, spray, vapors.

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 clothing, eye and face protection, protective gloves. P301+P310 - If swallowed: Immediately call a POISON CENTER, a 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.

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

P311 - Call a POISON CENTER, a doctor.

P312 - Call a POISON CENTER, a doctor if you feel unwell. P314 - Get medical advice or attention if you feel unwell.

P321 - 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 hazardous or special waste collection point, in accordance with local, regional,

national and/or international regulation to hazardous or special waste collection point, in

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

15. Conclusion

3-nitrotoluene (MNT 96 % + ONT 3 % + PNT 1%) is a hazardous chemical with significant health and environmental risks. It is toxic if swallowed, inhaled, or in contact with skin, and may cause serious long-term effects including organ damage, genetic defects, cancer, and reproductive harm. It is poorly soluble in water but poses a threat to aquatic environments due to its toxicity and persistence. Proper handling, storage, and disposal are critical to minimize exposure and environmental release. Use of personal protective equipment, adequate ventilation, and strict hygiene practices are essential to ensure safety. In case of accidental release or exposure, immediate and appropriate first aid and containment measures must be followed. 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.