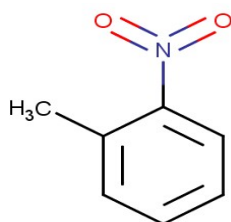


### 1. General Statement

2-Nitrotoluene or ortho-nitrotoluene is an organic compound. It is a pale yellow liquid. Mainly use a precursor to o-toluidine, which is an intermediate in the production of various dyes.

### 2. Chemical identity

Name : 2-nitrotoluene  
 CAS number(s) : 88-72-2  
 EC number : 201-853-3  
 Molecular formula : C<sub>7</sub>H<sub>7</sub>NO<sub>2</sub>  
 Structure :



### 3. Uses and Benefits

2-nitrotoluene used for the intermediates of dyes and pesticides, and also for the production of coatings, plastics and pharmaceuticals. 2-nitrotoluene is mainly used in the production of o-toluidine, o-tolidine, and also used as the important raw materials of dyes, paints, plastics and pharmaceuticals.

### 4. Physical / chemical properties

Property	Value
Physical state :	Liquid
Colour :	Yellow.
Odour :	Mild 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 <sup>3</sup>
Solubility Water:	0.044 g/100ml (20 °C)

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### 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.

### 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

Substance may cause genetic defects, cancer and is suspected of damaging fertility.

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.

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Industrial workers should ensure that they follow the advice found in the extended safety data sheet (SDS).

### Environment

2-nitrotoluene is very 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

<b>Organizational</b>	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.	
<b>Protection</b>	Eye protection:	Safety glasses
	Skin and body protection:	Wear suitable protective clothing
	Respiratory protection:	Wear a full face mask with filter type A at conc. in air > exposure limit. High vapour/gas concentration: self-contained respirator
<b>Engineering controls</b>	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.	
<b>Environment protective measures</b>		
Product must not be released into water without pre-treatment. Neutralize wastewater before release.		

## 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. Take the victim to an ophthalmologist if irritation persists.

**First-aid measures after ingestion** : Rinse mouth with water. Do not apply (chemical) neutralizing agents without medical advice. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

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### 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. Protective clothing.

**Environmental precautions**: Prevent soil and water pollution. Prevent spreading in sewers.

**For containment** : Contain released product, 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** : Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. 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

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### 13. Handling and storage

**Precautions for safe handling** : Do not handle until all safety precautions have been read and understood. Avoid contact with skin, eyes and clothing. Eliminate all ignition sources if safe to do so. Handle and open the container with care. Handle carefully. Wear personal protective equipment.

**Hygiene measures** : Always wash hands after handling the product. Remove contaminated clothes. Wear personal protective equipment.

### 14. Classification and Labeling

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

Hazard pictograms (CLP)



GHS07

GHS08

GHS09

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H302 - Harmful if swallowed.  
H340 - May cause genetic defects.  
H350 - May cause cancer.  
H361f - Suspected of damaging fertility.  
H411 - Toxic 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.  
P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves, protective clothing.

### 15. Conclusion

The substance May cause cancer , genetic defects and also it is suspected of damaging fertility .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**

Aarti Industries Limited

Udyog Kshetra, 2nd Floor, Mulund Goregaon Link Road, Mulund (West)

400080 Mumbai - India

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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.