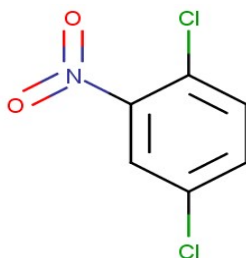


## **1. General Statement**

2,5-dichloro-1-nitrobenzene is a yellow solid which is insoluble in water. It is produced by nitration of 1,4-dichlorobenzene and mainly used as a precursor to many derivatives of commercial interest.

## **2. Chemical identity**

Name : 2,5-dichloro-1-nitrobenzene  
CAS number(s) : 89-61-2  
EC number : 201-923-3  
Molecular formula : C<sub>6</sub>H<sub>3</sub>Cl<sub>2</sub>NO<sub>2</sub>  
Structure :



## **3. Uses and Benefits**

2,5-Dichloronitrobenzene is a reagent used in the synthesis of antitrypanosomal, antileishmanial and antimalarial agents.

## **4. Physical / chemical properties**

| Property          | Value                  |
|-------------------|------------------------|
| Physical state :  | Solid                  |
| Colour :          | Light yellow-brown.    |
| Odour :           | Characteristic odour.  |
| pH :              | 6.9 (0.008 %)          |
| Melting point     | 56 °C                  |
| Boiling point :   | 267 °C                 |
| Flash point :     | 135 °C                 |
| Density :         | 1669 kg/m <sup>3</sup> |
| Solubility Water: | 0.008 g/100ml          |

# GPS Safety Summary

## 2,5-dichloro-1-nitrobenzene

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### 5. Health Effects

| Effect Assessment                                              | Result                                         |
|----------------------------------------------------------------|------------------------------------------------|
| Acute toxicity (Oral / inhalation / dermal )                   | Harmful if swallowed.                          |
| Irritation / corrosion<br>Skin / eye/ respiratory tract        | Causes skin irritation,serious eye irritation. |
| Respiratory or skin sensitisation                              | It May cause an allergic skin reaction.        |
| Toxicity after repeated exposure<br>Oral / inhalation / dermal | Not classified                                 |
| Genotoxicity / Mutagenicity                                    | Suspected of causing genetic defects.          |
| Carcinogenicity                                                | Not classified                                 |
| Toxicity for reproduction                                      | Not classified                                 |

### 6. Environmental Effects

| Effect Assessment             | Result                                         |
|-------------------------------|------------------------------------------------|
| Aquatic toxicity              | Yes                                            |
| Fate and behavior             | Result                                         |
| Persistence and degradability | Not readily biodegradable in water.            |
| Bioaccumulative potential     | Low potential for bioaccumulation (BCF < 500). |

### 7. Exposure

#### Human health

The substance suspected of causing genetic defects, skin & serious eye irritation.May also cause allergic skin reaction

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.

# GPS Safety Summary

## 2,5-dichloro-1-nitrobenzene

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

### Environment

The 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

|                                                                |                                                                                                                                                                                                                                                                                             |                                                |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <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:                                                                                                                                                                                                                                                                     | Dust production: dust mask with filter type P2 |
| <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. |                                                                                                                                                                                                                                                                                             |                                                |

## 9. First-aid measures

**First-aid measures after inhalation** : Remove person to fresh air and keep comfortable for breathing. 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. Take a victim to the doctor if irritation persists. Wash skin with plenty of water.

**First-aid measures after eye contact** : Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Take the victim to an ophthalmologist if irritation persists. Rinse eyes with water as a precaution.

**First-aid measures after ingestion** : Rinse mouth with water. Give nothing to drink. Call Poison Information Centre. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Call a poison center or a doctor if you feel unwell.

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### 10. Fire-fighting measures

#### **Extinguishing media**

Suitable extinguishing media : Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam. Water spray. Dry powder. Foam.

Unsuitable extinguishing media : Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.

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, hydrogen chloride, 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: 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 environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it.

### 11. Accidental release measures

**Protective equipment** :Gloves . Protective clothing . Dust cloud production:compressed air apparatus.

**Environmental precautions**:Ventilate spillage area. Mark the danger area. Prevent dust cloud formation. Wash contaminated clothes.

**For containment** : Contain released product, pump into suitable containers. Plug the leak, cut off the supply.Dam up the solid spill. Knock down/dilute dust clouds with water spray. Powdered form: no compressed air for pumping over spills. Collect spillage.

### 12. Disposal consideration

**Regional legislation (waste)** : Dispose of contents/container in accordance with licensed collector's sorting instructions.

**Waste treatment methods** : Remove waste in accordance with local and/or national regulations. Remove to an authorized plant for the destruction, neutralization and elimination of hazardous waste.Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the 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.

**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.

# GPS Safety Summary

## 2,5-dichloro-1-nitrobenzene

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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

### 13. Handling and storage

**Precautions for safe handling** : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid raising dust. Keep away from naked flames/heat. In a finely divided state: use spark/explosion proof appliances. Finely divided: keep away from ignition sources/sparks. 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. Powdered form: no compressed air for pumping over. Keep the container tightly closed.

**Hygiene measures** : Observe normal hygiene standards. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 14. Classification and Labeling

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

Hazard pictograms (CLP)

:



GHS07

GHS08

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H341 - Suspected of causing genetic defects.

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.

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

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

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

P272 - Contaminated work clothing should not be allowed out of the workplace.

# GPS Safety Summary

## 2,5-dichloro-1-nitrobenzene

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### 15. Conclusion

2,5-dichloro-1-nitrobenzene is a yellow solid which is insoluble in water. Suspected of causing genetic defects. The 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. 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

T +91-22-6797-6666 - F +91-22-2565 3234

info@aarti-industries.com - www.aarti-industries.com

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.