

# 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS MSDS

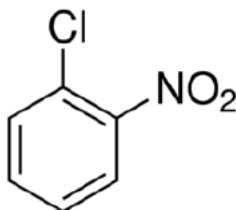
CAS-No.: 88-73-3 MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
CAS-No. : 88-73-3  
Product code : 02764  
Chemical structure :



#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Labogens Fine Chem Industries  
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,  
Ludhiana Pb. (141007)  
+91 9316777775, +91 7707855700  
[sales@labogens.com](mailto:sales@labogens.com) - [www.Labogens.com](http://www.Labogens.com)

#### 1.4. Emergency telephone number

Emergency number : +91 7707855700 (9:00am - 6:00 pm)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Acute toxicity (oral), H301  
Category 3  
Acute toxicity (dermal), H311  
Category 3

Full text of H statements : see section 16

# 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

T; R24  
Xn; R22  
R52/53

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

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

Hazard pictograms (CLP)

:



GHS06

Signal word (CLP)

: Danger

Hazard statements (CLP)

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

Precautionary statements (CLP)

: P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor  
P312 - Call a POISON CENTER/doctor if you feel unwell.

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name : 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS  
CAS-No. : 88-73-3

Full text of R- and H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.  
First-aid measures after skin contact : Immediately call a POISON CENTER/doctor. Take off immediately all contaminated clothing. Wash with plenty of water/....  
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

# 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : Toxic in contact with skin.

Symptoms/effects after ingestion : Harmful if swallowed.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

No additional information available

### 5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapours. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

# 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

### 8.2. Exposure controls

|                          |                                                                    |
|--------------------------|--------------------------------------------------------------------|
| Hand protection          | : Protective gloves                                                |
| Eye protection           | : Chemical goggles or safety glasses                               |
| Skin and body protection | : Wear suitable protective clothing                                |
| Respiratory protection   | : [In case of inadequate ventilation] wear respiratory protection. |

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                            |                           |
|--------------------------------------------|---------------------------|
| Physical state                             | : Solid                   |
| Molecular mass                             | : 157.58 g/mol            |
| Colour                                     | : Slight yellow.          |
| Odour                                      | : No data available       |
| Odour threshold                            | : No data available       |
| pH                                         | : 6 at 0.4 g/l            |
| Relative evaporation rate (butylacetate=1) | : No data available       |
| Melting point                              | : 31 - 33 °C              |
| Freezing point                             | : No data available       |
| Boiling point                              | : 246 °C                  |
| Flash point                                | : 126 °C                  |
| Auto-ignition temperature                  | : No data available       |
| Decomposition temperature                  | : No data available       |
| Flammability (solid, gas)                  | : No data available       |
| Vapour pressure                            | : 0.05 hPa at 20 °C       |
| Relative vapour density at 20 °C           | : No data available       |
| Relative density                           | : No data available       |
| Density                                    | : 1.348 g/cm <sup>3</sup> |
| Solubility                                 | : No data available       |
| Log Pow                                    | : 2.24                    |
| Viscosity, kinematic                       | : No data available       |
| Viscosity, dynamic                         | : No data available       |
| Explosive properties                       | : No data available       |
| Oxidising properties                       | : No data available       |

# 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

Explosive limits : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Air contact. Direct sunlight. Moisture.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin.

Skin corrosion/irritation : Not classified  
pH: 6 at 0.4 g/l

Serious eye damage/irritation : Not classified  
pH: 6 at 0.4 g/l

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : Harmful if swallowed. Toxic in contact with skin.

# 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : May cause long lasting harmful effects to aquatic life.

#### 12.2. Persistence and degradability

##### 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS (88-73-3)

|                               |                                                         |
|-------------------------------|---------------------------------------------------------|
| Persistence and degradability | May cause long-term adverse effects in the environment. |
|-------------------------------|---------------------------------------------------------|

#### 12.3. Bioaccumulative potential

##### 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS (88-73-3)

|         |      |
|---------|------|
| Log Pow | 2.24 |
|---------|------|

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

|                                            |                                                                                                                                                               |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product/Packaging disposal recommendations | : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. |
| Ecology - waste materials                  | : Hazardous waste due to toxicity.                                                                                                                            |

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

|               |        |
|---------------|--------|
| UN-No. (ADR)  | : 1578 |
| UN-No. (IMDG) | : 1578 |
| UN-No. (IATA) | : 1578 |
| UN-No. (ADN)  | : 1578 |
| UN-No. (RID)  | : 1578 |

#### 14.2. UN proper shipping name

|                                       |                                                      |
|---------------------------------------|------------------------------------------------------|
| Proper Shipping Name (ADR)            | : CHLORONITROBENZENES, SOLID                         |
| Proper Shipping Name (IMDG)           | : CHLORONITROBENZENES, SOLID                         |
| Proper Shipping Name (IATA)           | : Chloronitrobenzenes, solid                         |
| Proper Shipping Name (ADN)            | : CHLORONITROBENZENES, SOLID                         |
| Proper Shipping Name (RID)            | : CHLORONITROBENZENES, SOLID                         |
| Transport document description (ADR)  | : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II, (D/E) |
| Transport document description (IMDG) | : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II        |
| Transport document description (IATA) | : UN 1578 Chloronitrobenzenes, solid, 6.1, II        |

# 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

Transport document description (ADN) : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II  
Transport document description (RID) : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 6.1  
Danger labels (ADR) : 6.1



#### IMDG

Transport hazard class(es) (IMDG) : 6.1  
Danger labels (IMDG) : 6.1



#### IATA

Transport hazard class(es) (IATA) : 6.1  
Hazard labels (IATA) : 6.1



#### ADN

Transport hazard class(es) (ADN) : 6.1  
Danger labels (ADN) : 6.1



#### RID

Transport hazard class(es) (RID) : 6.1  
Danger labels (RID) : 6.1



### 14.4. Packing group

Packing group (ADR) : II  
Packing group (IMDG) : II  
Packing group (IATA) : II

# 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

|                     |      |
|---------------------|------|
| Packing group (ADN) | : II |
| Packing group (RID) | : II |

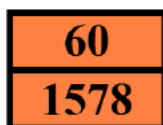
### 14.5. Environmental hazards

|                               |                                          |
|-------------------------------|------------------------------------------|
| Dangerous for the environment | : No                                     |
| Marine pollutant              | : No                                     |
| Other information             | : No supplementary information available |

### 14.6. Special precautions for user

#### - Overland transport

|                                                                         |               |
|-------------------------------------------------------------------------|---------------|
| Classification code (ADR)                                               | : T2          |
| Special provisions (ADR)                                                | : 279         |
| Limited quantities (ADR)                                                | : 500g        |
| Excepted quantities (ADR)                                               | : E4          |
| Packing instructions (ADR)                                              | : P002, IBC08 |
| Special packing provisions (ADR)                                        | : B4          |
| Mixed packing provisions (ADR)                                          | : MP10        |
| Portable tank and bulk container instructions (ADR)                     | : T3          |
| Portable tank and bulk container special provisions (ADR)               | : TP33        |
| Tank code (ADR)                                                         | : SGAH        |
| Tank special provisions (ADR)                                           | : TU15, TE19  |
| Vehicle for tank carriage                                               | : AT          |
| Transport category (ADR)                                                | : 2           |
| Special provisions for carriage - Packages (ADR)                        | : V11         |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : CV13, CV28  |
| Special provisions for carriage - Operation (ADR)                       | : S9, S19     |
| Hazard identification number (Kemler No.)                               | : 60          |
| Orange plates                                                           | :             |



|                               |       |
|-------------------------------|-------|
| Tunnel restriction code (ADR) | : D/E |
| EAC code                      | : 2X  |

#### - Transport by sea

|                                    |                                                                                                                          |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Special provisions (IMDG)          | : 279                                                                                                                    |
| Packing instructions (IMDG)        | : P002                                                                                                                   |
| IBC packing instructions (IMDG)    | : IBC08                                                                                                                  |
| IBC special provisions (IMDG)      | : B21, B4                                                                                                                |
| Tank instructions (IMDG)           | : T3                                                                                                                     |
| Tank special provisions (IMDG)     | : TP33                                                                                                                   |
| EmS-No. (Fire)                     | : F-A                                                                                                                    |
| EmS-No. (Spillage)                 | : S-A                                                                                                                    |
| Stowage category (IMDG)            | : A                                                                                                                      |
| Properties and observations (IMDG) | : Yellow crystals. Melting point: approximately 30°C to 80°C. Toxic if swallowed, by skin contact or by dust inhalation. |
| MFAG-No                            | : 152                                                                                                                    |

#### - Air transport

|                                |      |
|--------------------------------|------|
| PCA Excepted quantities (IATA) | : E4 |
|--------------------------------|------|

# 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

|                                              |         |
|----------------------------------------------|---------|
| PCA Limited quantities (IATA)                | : Y644  |
| PCA limited quantity max net quantity (IATA) | : 1kg   |
| PCA packing instructions (IATA)              | : 669   |
| PCA max net quantity (IATA)                  | : 25kg  |
| CAO packing instructions (IATA)              | : 676   |
| CAO max net quantity (IATA)                  | : 100kg |
| Special provisions (IATA)                    | : A113  |
| ERG code (IATA)                              | : 6L    |

### - Inland waterway transport

|                                   |                  |
|-----------------------------------|------------------|
| Classification code (ADN)         | : T2             |
| Special provisions (ADN)          | : 279, 802       |
| Limited quantities (ADN)          | : 500 g          |
| Excepted quantities (ADN)         | : E4             |
| Carriage permitted (ADN)          | : T              |
| Equipment required (ADN)          | : PP, EP, TOX, A |
| Ventilation (ADN)                 | : VE02           |
| Number of blue cones/lights (ADN) | : 2              |

### - Rail transport

|                                                                         |                    |
|-------------------------------------------------------------------------|--------------------|
| Classification code (RID)                                               | : T2               |
| Special provisions (RID)                                                | : 279              |
| Excepted quantities (RID)                                               | : E4               |
| Packing instructions (RID)                                              | : P002, IBC08      |
| Special packing provisions (RID)                                        | : B4               |
| Mixed packing provisions (RID)                                          | : MP10             |
| Portable tank and bulk container instructions (RID)                     | : T3               |
| Portable tank and bulk container special provisions (RID)               | : TP33             |
| Tank codes for RID tanks (RID)                                          | : SGAH             |
| Special provisions for RID tanks (RID)                                  | : TU15             |
| Transport category (RID)                                                | : 2                |
| Special provisions for carriage – Packages (RID)                        | : W11              |
| Special provisions for carriage - Loading, unloading and handling (RID) | : CW13, CW28, CW31 |
| Colis express (express parcels) (RID)                                   | : CE9              |
| Hazard identification number (RID)                                      | : 60               |

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

1-CHLORO-2 NITROBENZENE FOR SYNTHESIS is not on the REACH Candidate List

1-CHLORO-2 NITROBENZENE FOR SYNTHESIS is not on the REACH Annex XIV List

# 1-CHLORO-2 NITROBENZENE FOR SYNTHESIS

## Safety Data Sheet

### 15.1.2. National regulations

#### Germany

Reference to AwSV : Water hazard class (WGK) 3, severe hazard to water (Classification according to AwSV; ID No. 710)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

#### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of R-, H- and EUH-statements:

|                       |                                                                                              |
|-----------------------|----------------------------------------------------------------------------------------------|
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal), Category 3                                                          |
| Acute Tox. 3 (Oral)   | Acute toxicity (oral), Category 3                                                            |
| H301                  | Toxic if swallowed.                                                                          |
| H311                  | Toxic in contact with skin.                                                                  |
| R22                   | Harmful if swallowed                                                                         |
| R24                   | Toxic in contact with skin                                                                   |
| R52/53                | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment |
| T                     | Toxic                                                                                        |
| Xn                    | Harmful                                                                                      |

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*