

# 1-CHLORO-4-NITROBENZENE FOR SYNTHESIS MSDS

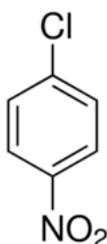
CAS-No.: 100-00-5 MSDS

## MATERIAL SAFETY DATA SHEET (MSDS)

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

#### 1.1. Product identifier

Product form : Substance  
:  
EC Index-No. : 610-005-00-5  
EC-No. : 202-809-6  
CAS-No. : 100-00-5  
Product code : 02766  
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

LOBA CHEMIE PVT.LTD.  
107 Wode House Road, Jehangir Villa, Colaba  
400005 Mumbai - INDIA  
T +91 22 6663 6663 - F +91 22 6663 6699  
[info@lobachemie.com](mailto:info@lobachemie.com) - [www.lobachemie.com](http://www.lobachemie.com)

#### 1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (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 (dermal), H311  
Category 3  
Acute toxicity (inhal.), H331  
Category 3  
Acute toxicity (oral), H301  
Category 3

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Carcinogenicity, Category 2 H351  
Germ cell mutagenicity, Category 2 H341  
Specific target organ toxicity — Repeated exposure, Category 2 H373  
Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411

Full text of H statements : see section 16

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

Carc.Cat.3; R40  
Muta.Cat.3; R68  
T; R23/24/25  
Xn; R48/20/21/22  
N; R51/53

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

GHS08

GHS09

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled  
H341 - Suspected of causing genetic defects.  
H351 - Suspected of causing cancer.  
H373 - May cause damage to organs through prolonged or repeated exposure.  
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P261 - Avoid breathing vapours, spray, dust, fume, gas.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor  
P311 - Call a POISON CENTER/doctor

## 2.3. Other hazards

No additional information available

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Name	: 1-CHLORO-4-NITROBENZENE FOR SYNTHESIS
CAS-No.	: 100-00-5
EC-No.	: 202-809-6
EC Index-No.	: 610-005-00-5

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 general	: Suspected of causing cancer.
First-aid measures after inhalation	: Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Immediately call a POISON CENTER/doctor. Take off immediately all contaminated clothing. Wash with plenty of water/.... Wash contaminated clothing before reuse.
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.
First-aid measures after ingestion	: Rinse mouth. Obtain emergency medical attention.

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

Symptoms/effects	: Suspected of causing genetic defects. Causes damage to organs.
Symptoms/effects after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.
Symptoms/effects after ingestion	: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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

No additional information available

### 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.
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### 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.
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##### 6.1.2. For emergency responders

Protective equipment	: Use personal protective equipment as required.
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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 : Do not breathe vapours. Use personal protective equipment as required. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes.

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

### 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 : 157.56 g/mol

Colour : Lemon yellow.

Odour : No data available

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available

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Melting point	: 80 - 83 °C
Freezing point	: No data available
Boiling point	: 242 °C
Flash point	: 124 °C
Auto-ignition temperature	: 510 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.298 g/cm <sup>3</sup>
Solubility	: Water: Insoluble
Log Pow	: 2.6
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
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

Direct sunlight. Moisture. Heat.

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

No additional information available

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## Safety Data Sheet

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

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

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

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

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : Toxic to aquatic life with long lasting effects.

#### 12.2. Persistence and degradability

##### 1-CHLORO-4-NITROBENZENE FOR SYNTHESIS (100-00-5)

Persistence and degradability	May cause long-term adverse effects in the environment.
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#### 12.3. Bioaccumulative potential

##### 1-CHLORO-4-NITROBENZENE FOR SYNTHESIS (100-00-5)

Log Pow	2.6
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#### 12.4. Mobility in soil

No additional information available

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

No additional information available

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### 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), ENVIRONMENTALLY HAZARDOUS  
Transport document description (IMDG) : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS  
Transport document description (IATA) : UN 1578 Chloronitrobenzenes, solid, 6.1, II, ENVIRONMENTALLY HAZARDOUS  
Transport document description (ADN) : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II, ENVIRONMENTALLY HAZARDOUS  
Transport document description (RID) : UN 1578 CHLORONITROBENZENES, SOLID, 6.1, II, ENVIRONMENTALLY HAZARDOUS

### 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



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### 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

Packing group (ADN) : II

Packing group (RID) : II

### 14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

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

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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
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

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## Safety Data Sheet

### - 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-4-NITROBENZENE FOR SYNTHESIS is not on the REACH Candidate List

1-CHLORO-4-NITROBENZENE FOR SYNTHESIS is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 3, Highly hazardous to water (Classification according to AwSV; ID No. 233)

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

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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  
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

## 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 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Carc. 2	Carcinogenicity, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed
R40	Limited evidence of a carcinogenic effect
R48/20/21/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R68	Possible risk of irreversible effects
N	Dangerous for the 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*