



# Alpha Chemika



ISO 9001 QUALITY SYSTEM CERTIFIED ORGANIZATION

## MATERIAL SAFETY DATA SHEET

### MSDS

Savgan Heights ; 102 ,B Wing ; R.T.O. Lane ,Andheri (West) Mumbai - 400053 , INDIA

## Section 1 - Chemical Product and Company Identification

### Product Name : 1-CHLORO-2-NITROBENZENE

**Synonyms:** o-Chloronitrobenzene, o-nitro chlorobenzene, ONCB

**CAS No.:** 88-73-3

**Molecular Weight:** 157,55

**Chemical Formula:** C<sub>6</sub>H<sub>4</sub>ClNO<sub>2</sub>

## Section 2 - Composition, Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
1-chloro-2-nitrobenzene	88-73-3	98- 100%	Yes

## Section 3 - Hazardous Identification

### Risk advice to man and the environment

Harmful if swallowed. Toxic in contact with skin. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## Section 4 - First Aid Measures

### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

### If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## Section 5 - Fire Fighting Measures

### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

## Section 6 - Accidental Release Measures

### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### **Methods for cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

## Section 7 - Handling and Storage

### **Handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

### **Storage**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

## Section 8 - Exposure Controls, Personal Protection

### **Personal protective equipment**

#### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### **Hand protection**

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

#### **Eye protection**

Safety glasses

#### **Skin and body protection**

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### **Hygiene measures**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## Section 9 - Physical and Chemical Properties

### Appearance

Form Solidified mass or fragments

Colour light yellow

### Safety data

pH 6 at 0,4 g/l

Melting point 31 - 33 °C

Boiling point 246 °C

Flash point 126 °C - closed cup

Ignition temperature 470 °C

Lower explosion limit 1,4 %(V)

Upper explosion limit 8,7 %(V)

Vapour pressure 0,43 hPa at 50 °C

0,15 hPa at 37,7 °C

0,05 hPa at 25 °C

Density 1,348 g/mL at 25 °C

Water solubility no data available

Partition coefficient:

n-octanol/water

log Pow: 2,24

## Section 10 - Stability and Reactivity

### Storage stability

Stable under recommended storage conditions.

### Materials to avoid

Strong bases, Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride gas

## Section 11 - Toxicological Information

### Acute toxicity

LD50 Oral - rat - 268 mg/kg

LD50 Dermal - rabbit - 400 mg/kg

### Irritation and corrosion

no data available

### Sensitisation

no data available **Chronic**

**exposure** Carcinogenicity -

rat - Oral

Tumorigenic:Neoplastic by RTECS criteria. Gastrointestinal:Tumors. Endocrine:Tumors.

Carcinogenicity - mouse - Oral

Tumorigenic:Carcinogenic by RTECS criteria. Liver:Tumors.

IARC: Group 3 - Not classifiable as to carcinogenicity to humans (1-Chloro-2-nitrobenzene)

Reproductive toxicity - rat - Inhalation

Paternal Effects: Spermatogenesis (including genetic material, sperm morphology,motility, and count).

### Signs and Symptoms of Exposure

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### **Potential Health Effects**

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Skin** Toxic if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Ingestion** Harmful if swallowed.

### **Additional Information**

RTECS: CZ0875000

## **Section 12 - Ecological Information**

### **Elimination information (persistence and degradability)**

Bioaccumulation *Oncorhynchus mykiss* (rainbow trout) - 36 d

Bioconcentration factor (BCF): 176

### **Ecotoxicity effects**

Toxicity to daphnia

and other aquatic

invertebrates.

EC50 - *Daphnia magna* (Water flea) - 3,2 mg/l - 48 h

### **Further information on ecology**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

no data available

## **Section 13 - Disposal Considerations**

### **Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

### **Contaminated packaging**

Dispose of as unused product.

## **Section 14 - Transport Information**

### **ADR/RID**

UN-Number: 1578 Class: 6.1 Packing group: II

Proper shipping name: CHLORONITROBENZENES, SOLID

### **IMDG**

UN-Number: 1578 Class: 6.1 Packing group: II EMS-No: F-A, S-A

Proper shipping name: CHLORONITROBENZENES, SOLID

Marine pollutant: No

### **IATA**

UN-Number: 1578 Class: 6.1 Packing group: II

Proper shipping name: Chloronitrobenzenes, solid

## **Section 15 - Regulatory Information**

### **Labelling according to EC Directives**

Hazard symbols

T Toxic

R-phrase(s)

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.

S-phrase(s)

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## **Section 16 - Additional Information**

**Not Available**