



# SAFETY DATA SHEET

## 1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Catalogue No : C 24129

Product Name : 4- Chloroaniline

Manufacture / Supplier Identification Company : **Nice Chemicals (P) Ltd.,**  
PB No: 2217, Manimala Road, Edappally,  
Kochi - 682 024, Kerala, India.

Contact for Information : **Tel:** 91-484-2800212, 2802755, 2802536, 2801583  
**Fax :** 0484 2802483

Emergency Telephone No : 0484 2801583

TeleFax No : 0484 2802483

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## 2 COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms : .....

CAS - No : .....

Molar Mass : .....

Molecular weight : 127.57 g/mol

Molecular Formula : C<sub>6</sub>H<sub>6</sub>ClN

EC - INDEX No : 612-137-00-9

EC - No : .....

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## 3 HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP] : Carcinogenicity (Category 1B)  
Acute toxicity, Inhalation (Category 3)  
Acute toxicity, Dermal (Category 3)  
Acute toxicity, Oral (Category 3)  
Skin sensitization (Category 1)  
Acute aquatic toxicity (Category 1)  
Chronic aquatic toxicity (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC : May cause cancer. Toxic by inhalation, in contact with skin and if swallowed. May cause sensitization by skin contact. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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**Label Elements**

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

Pictogram : 

Signal word : Danger

**Hazard statement(s)**

H301	:	Toxic if swallowed
H311	:	Toxic in contact with skin
H317	:	May cause an allergic skin reaction
H331	:	Toxic if inhaled.
H350	:	May cause cancer.
H410	:	Very toxic to aquatic life with long lasting effects.

**Precautionary statement(s)**

P201	:	Obtain special instructions before use.
P261	:	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray
P273	:	Avoid release to the environment.
P280	:	Wear protective gloves/ protective clothing.
P301 + P310	:	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician
P311	:	Call a POISON CENTER or doctor/ physician.

According to European Directive 67/548/EEC as amended.

Hazard symbol(s) : **R-phrases(s)**

R45	:	May cause cancer
R23/24/25	:	Also toxic by inhalation, in contact with skin and if swallowed
R43	:	May cause sensitization by skin contact.
R50/53	:	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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**S-phrase(s)**

S53 : Avoid exposure - obtain special instructions before use

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

S60 : This material and its container must be disposed of as hazardous waste.

S61 : Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Other Hazards : No data available

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**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. 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.

Most Important symptoms and effects, both acute and delayed : May cause cyanosis., 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.

Indication of any immediate medical attention and special treatment needed : No data available

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**5 FIRE - FIGHTING MEASURES**

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture : Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

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Advice for firefighters	:	Wear self contained breathing apparatus for fire fighting if necessary.
Further Information	:	No data available

## 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental-protection	:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
Reference to other sections	:	For disposal see section 13.

## 7 HANDLING AND STORAGE

Precautions for safe handling	:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed.
Conditions for safe storage, including any incompatibilities	:	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Light sensitive. Store under inert gas. Air sensitive.
Specific end users	:	No data available

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameter

Compnents with workplace control parameters

Appropriate engineering controls	:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.
Personal protective equipment	:	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)
Eye/face protection	:	

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Skin Protection : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.  
Wash and dry hands.

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

Body Protection : Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection : Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (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).

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## 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance **Form** : Solid  
**Colour** : No data available

Odour : No data available

Odour Threshold : No data available

pH : 6,9 at 1,00000 g/l at 20,0 °C

Melting Point/Freezing point : 67 - 70 °C - lit.

Initial Boiling point and boiling range : 232 °C - lit.

Flash Point : 120,0 °C - closed cup

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper/lower flammability or explosive limits : No data available

Vapour Pressure : 0,036 hPa at 26,0 °C  
0,4 hPa at 38,0 °C  
0,3 hPa at 25,0 °C

Vapour Density : No data available

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Relative density	:	1,14 g/cm <sup>3</sup> at 100,00 °C
Water solubility	:	2 g/l
Partition coefficient: octanol/water	:	log Pow: 2,12log Pow: 1,70
Autoignition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Decompositiontemperature	:	No data available
Other Safety information	:	No data available

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**10 STABILITY AND REACTIVITY**

Reactivity	:	No data available
Chemical stability	:	No data available
Conditions to be avoid	:	No data available
hazardous decomposition products	:	Other decomposition products - no data available
Possibility of hazardous reactions	:	No data available
incompatible materials	:	acids, Acid chlorides, Acid anhydrides, Chloroformates, Strong oxidizing agents

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**11 TOXICOLOGICAL INFORMATION**

Acute Toxicity	:	LD50 Oral - rat - male - 256,0 mg/kg LC50 Inhalation - rat - 4 h - 2.340 mg/m <sup>3</sup>
Remarks: Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or Respiration:Dyspnea. Cyanosis		
LD50 Dermal - rat - male - 455,0 mg/kg		
Skin corrosion/irritation	:	No skin irritation
Serious eye damage/eye irritation	:	Mild eye irritation
Respiratory or skin sensitization	:	No data available
Germ cell mutagenicity	:	May cause sensitization by skin contact.

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Carcinogenicity	:	This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. IARC: 2B - Group 2B: Possibly carcinogenic to humans (4-Chloroaniline)
Reproductive toxicity	:	No data available
Specific target organ toxicity - single exposure	:	No data available
Specific target organ toxicity - repeated exposure	:	No data available
Aspiration hazard	:	No data available
Potential health effects	:	No data available
Signs and symptoms of exposure	:	May cause cyanosis., 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.
Additional Information	:	RTECS: BX0700000

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## 12 ECOLOGICAL INFORMATION

### Toxicity

Toxicity to fish	:	LC50 - Lepomis macrochirus (Bluegill) - 1,8 - 3,2 mg/l - 96,0 h LC50 - Oncorhynchus mykiss (rainbow trout) - 9,7 - 16 mg/l - 96,0 h LC50 - Pimephales promelas (fathead minnow) - 7 - 18 mg/l - 96,0 h LC50 - Danio rerio (zebra fish) - 33 mg/l - 96,0 h LC50 - Leuciscus idus (Golden orfe) - 23 mg/l - 48,0 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 - Daphnia magna (Water flea) - 0,04 - 0,06 mg/l - 48 h
Toxicity to algae	:	EC50 - Desmodesmus subspicatus (green algae) - 2,20 - 6,30 mg/l - 72 h

### Persistence and degradability

Biodegradability	:	aerobic Result: > 90 % - Readily biodegradable
Bioaccumulative potential	:	No data available

