OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

Regd Office: Unit no 12, 1st Floor,
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Oxford
Range of
Laboratory Chemicals

MATERIAL SAFETY DATA SHEET

2-CHLOROANILINE 98%
(For Synthesis)
(Otho-Chloro Aniline)
MSDS CAS: 95-51-2

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product
Product Name: 2-Chloroaniline
CAS#: 95-51-2
Synonym: Not Applicable.
Chemical Name: Otho-Chloro Aniline.
Chemical Formula: C_6H_6ClN

Brand : OXFORD

Details Of The Supplier Of The Safety Data Sheet :

Company identification: **OXFORD LAB FINE CHEM LLP**
Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,
Navghar, Vasai (East). Palghar - 401 210.
Mumbai, Maharashtra, INDIA.
Tel: 91-250-2390989
Tel/Fax: 91-250-2390032

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
2-Chloroaniline	95-51-2	100

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Section 3: Hazards Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity (Category 3)
Acute toxicity (Category 3)
Acute toxicity (Category 3)
Specific target organ toxicity - repeated exposure (Category 2)
Acute aquatic toxicity (Category 1)
Chronic aquatic toxicity (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC:

Toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Label elements:

Labelling according Regulation (EC) No 1272/2008
Signal word Danger

Hazard statement(s):

H373 : May cause damage to organs through prolonged or repeated exposure.
H301 : Toxic if swallowed.
H311 : Toxic in contact with skin.
H331 : Toxic if inhaled.
H410 : Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

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.
P501 : Dispose of contents/ container to an approved waste disposal plant.
Supplemental Hazard Statements : none

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

R-phrase(s)

R23/24/25 : Toxic by inhalation, in contact with skin and if swallowed.
R33 : Danger of cumulative effects.
R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Section 3: Hazards Identification (Continued)

S-phrase(s)

S28 : After contact with skin, wash immediately with plenty of soap and water.
S36/37 : Wear suitable protective clothing and gloves.
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.

Section 4: First Aid Measures

Description of 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.

Most important symptoms and effects, both acute and delayed:

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., Liver injury may occur., Kidney injury may occur.

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

Section 5: Fire and Explosion Data

Extinguishing media

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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Section 5: Fire and Explosion Data (Continued)

Advice for firefighters: **Wear self contained breathing apparatus for fire fighting if necessary.**

Further information: **no data available.**

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapors, mist or gas. 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 and materials for containment and cleaning up:
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Precautions for safe handling:
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Conditions for safe storage, including any incompatibilities:
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Light sensitive. Store under inert gas. Air sensitive.

Specific end use(s): **no data available.**

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Section 8: Exposure Controls/Personal Protection

Control parameters
Components with workplace control parameters

Exposure controls
Appropriate engineering controls:
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment
Eye/face protection:
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).

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 respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Form : **clear, liquid**
Colour : **light red**
Odour : **no data available** **Odour Threshold** : **no data available**

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Section 9: Physical and Chemical Properties (Continued)

Molecular Weight	**: 127,57 g/mol**
pH	**: no data available**
Melting point	**: -2 - -1 °C**
Initial boiling point	**: 208 - 210 °C**
Flash point	**: 98 °C - closed cup - DIN 51758**
Evapouration rate	**: no data available.**
Flammability (solid, gas)	**: no data available.**
Explosive limits	**: Upper explosion limit: 14,2 %(V) Lower explosion limit: 2,4 %(V)**
Vapour pressure	**: 0,13 hPa at 20 °C 0,36 hPa at 30 °C 1,7 hPa at 50 °C**
Vapour density	**: 4,4 - (Air = 1.0)**
Relative density	**: 1,213 g/mL at 25 °C**
Water solubility	**: ca.5,13 g/l at 20 °C.**
Partition coefficient	**: log Pow: 1,9.**
Auto-ignition temperature	**: no data available.**
Decomposition temperature	**: no data available.**
Viscosity	**: no data available.**
Explosive properties	**: no data available.**
Oxidizing properties	**: no data available.**

Section 10: Stability and Reactivity Data

Reactivity: **no data available.**

Chemical stability: **no data available.**

Possibility of hazardous reactions: **no data available.**

Conditions to avoid: **Heat, flames and sparks.**

Incompatible materials: **acids, Acid chlorides, Acid anhydrides, Chloroformates, Strong oxidizing agents**

Hazardous decomposition products: **Other decomposition products - no data available**.

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Section 11: Toxicological Information

Information on toxicological effects

Acute toxicity:

LD50 Oral - mouse - 256 mg/kg
LC50 Inhalation - rat - 4 h - 4,1 mg/l

Skin corrosion/irritation: **Skin - rabbit - No skin irritation - Directive 67/548/EEC, Annex V, B.4.**

Serious eye damage/eye irritation:

Eyes - rabbit - Irritating to eyes. - 4 h - Directive 67/548/EEC, Annex V, B.5.

Respiratory or skin sensitisation:

Maximisation Test - guinea pig - Directive 67/548/EEC, Annex V, B.6. - Did not cause sensitization on laboratory animals.

Germ cell mutagenicity:

Genotoxicity in vitro - mouse - lymphocyte
Genotoxicity in vitro - Hamster - Lungs
Mutation in mammalian somatic cells.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: no data available.

Specific target organ toxicity - single exposure: no data available.

Specific target organ toxicity - repeated exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: no data available.

Potential health effects:

Inhalation : Toxic if inhaled. May cause respiratory tract irritation.
Ingestion : Toxic if swallowed.
Skin : Toxic if absorbed through skin. May cause skin irritation.
Eyes : Causes serious eye irritation.

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Section 11: Toxicological Information (Continued)

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., Liver injury may occur., Kidney injury may occur.

Section 12: Ecological Information

Toxicity:
Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 5,7 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 1,8 mg/l - 48 h
Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - 150 mg/l - 72 h

Persistence and degradability :
Biodegradability aerobic - Exposure time 19 d Result: 16 % - Not readily biodegradable.

Bioaccumulative potential :
Bioaccumulation- Danio rerio (zebra fish) - 96 h -25,5 µg/l Bioconcentration factor (BCF): 15,3

Mobility in soil : no data available.

Results of PBT and vPvB assessment: no data available.

Other adverse effects : Very toxic to aquatic life.

Section 13: Disposal Considerations

Waste treatment methods
Product:
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.

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Section 14: Transport Information

Land transport (ADR-RID)
Proper shipping name : CHLOROANILINES, LIQUID
UN N° : 2019
H.I. nr : 60
ADR - Class : 6.1
Labelling - Transport : 6.1 : Toxic substances.
ADR- Packaging group : II

Sea transport (IMDG) [English only]
Proper shipping name : CHLOROANILINES, LIQUID
UN N° : 2019
IMO-IMDG - Class or division : 6.1 : Toxic substances.
IMO-IMDG - Packing group : II

Air transport (ICAO-IATA) [English only]
Proper shipping name : CHLOROANILINES, LIQUID
UN N° : 2019
IATA - Class or division : 6.1 : Toxic substances.
IATA - Packing group : II

Section 15: Other Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture: no data available.

Chemical Safety Assessment: no data available.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

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