OXFORD LAB FINE CHEM LLP

Regd Office: Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
Navghar, Vasai (East), Palghar - 410210.
Maharashtra, INDIA.

Tel: +91 250 2390032 / 2390989 / 2390990
Email: sales@oxfordlabchem.com /
info@oxfordlabchem.com
Web: www.oxfordlabchem.com

Oxford
Range of
Laboratory Chemicals

MATERIAL SAFETY DATA SHEET

NITRILOTRIACETIC ACID 99% AR (NTA)

(Complexometric Indicator and reagent)

MSDS CAS: 139-13-9

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: NITRILOTRIACETIC ACID AR

CAS#: 139-13-9

Synonym: CHEL 300, Complexon I, Komplexon I, NTA, Titrplex I, Trilon A, Versene NTA acid; N,N-Bis(carboxymethyl)glycine; Triglycine;Nitrilotris (methylenecarboxylic acid); alpha, alpha',alpha''-Trimethylaminetricarboxylic acid; Aminotriacetic acid

Chemical Name: Not Available.

Chemical Formula: $N(CH_2COOH)_3$ or C_6-H_9-O_6-N

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
Nitrilotriacetic Acid AR	139-13-9	100

Toxicological Data on Ingredients:

Nitrilotriacetic acid: ORAL (LD50): Acute: 1100 mg/kg [Rat]. 3160 mg/kg [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of ingestion, of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant), of eye contact (irritant),.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Classified 2B (Possible for human.) by IARC. Classified 2 (Some evidence.) by NTP.MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention.

Skin Contact:

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Serious Skin Contact: Not available.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).

Fire Hazards in Presence of Various Substances:
Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:
Slightly explosive in presence of open flames and sparks. Non-explosive in presence of shocks.

Fire Fighting Media and Instructions:
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: As with most organic solids, fire is possible at elevated temperatures

Special Remarks on Explosion Hazards:
Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

Section 6: Accidental Release Measures

Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:
Use a shovel to put the material into a convenient waste disposal container. Neutralize the residue with a dilute solution of sodium carbonate. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:
Keep away from heat. Keep away from sources of ignition. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents.

Storage: **Keep container tightly closed. Keep container in a cool, well-ventilated area**

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:
Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: **Not available.**

Section 9: Physical and Chemical Properties

Physical state and appearance: **Solid. (Crystalline powder.)**
Odor : **Odorless.**
Taste : **Not available.**
Molecular Weight : **191.14 g/mole**
Color : **White.**
pH (1% soln/water) : **pH of saturated solution: 2.3 [Acidic.]**
Boiling Point : **Not available.**
Melting Point : **242°C (467.6°F)**
Critical Temperature : **Not available.**

Section 9: Physical and Chemical Properties (Continued)

Specific Gravity : **Not available.**
Vapor Pressure : **Not applicable.**
Vapor Density : **Not available.**
Volatility : **Not available.**
Odor Threshold : **Not available.**
Water/Oil Dist. Coeff. : **Not available.**
Ionicity (in Water) : **Not available.**
Dispersion Properties : **Not available.**

Solubility: **Partially soluble in hot water. Very slightly soluble in cold water. Insoluble in most organic solvents. Solubility in water: 5.91X10+4 mg/l @ 25 deg C. 1.28 g dissolves in 1 liter of water @ 22.5 deg. C Soluble in ethanol. Slightly soluble in dimethyl sulfoxide-d6**

Section 10: Stability and Reactivity Data

Stability: **The product is stable.**

Instability Temperature: **Not available.**

Conditions of Instability: **Excess heat, dust generation, incompatible materials**

Incompatibility with various substances: **Reactive with oxidizing agents.**

Corrosivity: **Non-corrosive in presence of glass.**

Special Remarks on Reactivity: **Not available.**

Special Remarks on Corrosivity: **Not available.**

Polymerization: **Will not occur.**

Section 11: Toxicological Information

Routes of Entry: **Inhalation. Ingestion.**

Toxicity to Animals: **Acute oral toxicity (LD50): 1100 mg/kg [Rat].**

Section 11: Toxicological Information (Continued)

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: Classified 2B (Possible for human.) by IARC. Classified 2 (Some evidence.) by NTP. May cause damage to the following organs: kidneys.

Other Toxic Effects on Humans: Hazardous in case of ingestion, of inhalation (lung irritant). Slightly hazardous in case of skin contact (irritant), .

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:
May affect genetic material (mutagenic). May cause cancer

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Dust may cause mechanical irritation. Eyes: Dust may cause mechanical eye irritation. Inhalation: Inhalation of dust can cause respiratory tract irritation. Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting, and diarrhea. May cause kidney damage Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect metabolism and urinary system (kidney damage - acute renal failure, acute tubular necrosis; bladder)

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

Land transport (ADR-RID)

General information: **Not regulated.**

Sea transport (IMDG) [English only]

General information: **Not regulated.**

Air transport (ICAO-IATA) [English only]

General information: **Not regulated.**

Section 15: Other Regulatory Information

Federal and State Regulations:

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Nitrilotriacetic acid California prop. 65 (no significant risk level): Nitrilotriacetic acid: 0.1 mg/day (value) California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Nitrilotriacetic acid Illinois toxic substances disclosure to employee act: Nitrilotriacetic acid Pennsylvania RTK: Nitrilotriacetic acid Minnesota: Nitrilotriacetic acid Massachusetts RTK: Nitrilotriacetic acid New Jersey: Nitrilotriacetic acid New Jersey spill list: Nitrilotriacetic acid California Director's List of Hazardous Substances: Nitrilotriacetic acid TSCA 8(b) inventory: Nitrilotriacetic acid SARA 313 toxic chemical notification and release reporting: Nitrilotriacetic acid

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): WHMIS classification of this product has not been validated yet by the Service du Repertoire Toxicologique. The classification will probably be D2A.

DSCL (EEC): R22- Harmful if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. R40- Possible risks of irreversible effects. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 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 15: Other Regulatory Information (Continued)

HMIS (U.S.A.):
Health Hazard: 2
Fire Hazard: 1
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):
Health: 2
Flammability: 1
Reactivity: 0
Specific hazard:

Protective Equipment:
Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

OXFORD LAB FINE CHEM LLP

Regd Office: Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
Navghar, Vasai (East), Palghar - 410210.
Maharashtra, INDIA.

Tel: +91 250 2390032 / 2390989 / 2390990
Email: sales@oxfordlabchem.com /
info@oxfordlabchem.com
Web: www.oxfordlabchem.com

Oxford
Range of
Laboratory Chemicals

Disclaimer:

****

The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Oxford Lab Fine Chem LLP makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Oxford Lab Fine Chem LLP will not be responsible for damages resulting from use of or reliance upon this information.