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

1,2,3-BENZOTRIAZOLE
(For Synthesis)
MSDS CAS: - 95-14-7

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product
Product Name: 1,2,3-BENZOTRIAZOLE (For Synthesis)
CAS#: - 95-14-7
C.I. No.: Not available.
Synonym: 1,2,3-Triaza-1H-Indene
Chemical Name: 1,2,3-Benzotriazole
Chemical Formula: C6-H5-N3
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
1,2,3-BENZOTRIAZOLE	95-14-7	100

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Section 3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Corrosive to eyes and skin. The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to the nervous system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung 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. Get medical attention immediately.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

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

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.

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Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.
Auto-Ignition Temperature: 400°C (752°F)
Flash Points: CLOSED CUP: 195°C (383°F).
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 open flames and sparks, of heat. Non-flammable in presence of shocks.
Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Explosive in presence of heat.
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: Not available.
Special Remarks on Explosion Hazards: May EXPLODE during vacuum distillation

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:
Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. 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. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

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Section 7: Handling and Storage

Precautions:
Keep locked up.. Keep container dry. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Never add water to this product. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. 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:
Splash goggles. Synthetic apron. Vapor and 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. Vapor and 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: **STEL: 5 (mg/m3) [Russia] [1993] SKINConsult local authorities for acceptable exposure limits.**

Section 9: Physical and Chemical Properties

Physical state and appearance	**: Solid. (Powdered solid.)**
Odor	**: Not available.**
Taste	**: Not available.**
Molecular Weight	**: 119.13 g/mole**
Color	**: White to Tan**
pH (1% soln/water)	**: 1.44 [Acidic.]**
Boiling Point	**: 204°C (399.2°F)**
Melting Point	**: 98.5°C (209.3°F)**
Critical Temperature	**: Not available.**

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Section 9: Physical and Chemical Properties (Continued)

Specific Gravity	**: Not available.**
Vapor Pressure	**: Not applicable.**
Vapor Density	**: 4.1 (Air = 1)**
Volatility	**: Not available.**
Odor Threshold	**: Not available.**
Water/Oil Dist. Coeff.	**: Not available.**
Ionicity (in Water)	**: Not available.**
Dispersion Properties	**: See solubility in water.**

Solubility:
Soluble in cold water, hot water. Solubility in water: 20 g/l Soluble in benzene, toluene, chloroform, ethanol, N,Ndimethylformamide

Section 10: Stability and Reactivity Data

Stability: **The product is stable.**
Instability Temperature: **Not available.**
Conditions of Instability: **Excess heat, dust generatioin, ignition sources, 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:
WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 500 mg/kg [Guinea pig]. Acute dermal toxicity (LD50): >1000 mg/kg [Rat]. Acute toxicity of the dust (LC50): 1910 mg/m3 3 hours [Rat].
Chronic Effects on Humans:
MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. May cause damage to the following organs: the nervous system, central nervous system (CNS).

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Section 11: Toxicological Information (Continued)

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

Special Remarks on Toxicity to Animals:
Lowest Published Lethal Dose: LDL [Rabbit] - Route: Skin; Dose 450 mg/kg

Special Remarks on Chronic Effects on Humans:
May affect genetic material May cause cancer based on animal data. Inadequate evidence for carcinogenicity in humans.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: Causes eye irritation. Inhalation: May cause respiratory tract irritation. It may affect respiration(Dyspnea). Ingestion: May cause digestive tract irritation. May be harmful if swallowed. May affect behavior/central nervous (central nervous system effects), and autonomic nervous system. Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect blood (Leukopenia, normocytic anemia), and endocrine system.

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 less toxic than the product itself.**

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.

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Section 14: Transport Information

Land transport (ADR-RID)
General information : **Not regulated.**

Sea transport (IMDG)
General information : **Not regulated.**

Air transport (ICAO-IATA)
General information : **Not regulated.**

Section 15: Other Regulatory Information

Federal and State Regulations:
Massachusetts RTK: Benzotriazole-1,2,3 TSCA 8(b) inventory: Benzotriazole-1,2,3 TSCA 8(d) H and S data reporting: Benzotriazole-1,2,3: April 13, 1989 to Dec. 19, 1995

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): **Not controlled under WHMIS (Canada).**
DSCL (EEC):
R22- Harmful if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. S1/2- Keep locked up and out of the reach of children. 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). S46- If swallowed, seek medical advice immediately and show this container or label.
HMIS (U.S.A.):
Health Hazard: 2
Fire Hazard: 1
Reactivity: 0
Personal Protection: j
National Fire Protection Association (U.S.A.):
Health: 2
Flammability: 1
Reactivity: 0

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Section 15: Other Regulatory Information (Continued)

Specific hazard:
Protective Equipment:
Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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