OXFORD LAB FINE CHEM LLP

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Oxford
Range of
Laboratory Chemicals

MATERIAL SAFETY DATA SHEET

3,3',5,5'-TETRAMETHYL BENZIDINE AR

MSDS CAS: 54827-17-7

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product
Product Name: 3,3',5,5'-TETRAMETHYL BENZIDINE AR
CAS#: 54827-17-7
Synonym: 3,5,3',5'-Tetramethylbenzidine
Chemical Name: (1,1'-Biphenyl)-4,4-diamine, 3,3',5,5'- tetramethyl-
Chemical Formula: [(CH3)2-C6-H2-NH2]2

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,
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Mumbai, Maharashtra, INDIA.
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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
{3,3',5,5'-}Tetramethylbenzidine	54827-17-7	100

Toxicological Data on Ingredients: 3,3',5,5'-Tetramethylbenzidine LD50: Not available. LC50: Not available.

Section 3: Hazards Identification

Potential Acute Health Effects: **Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant).**

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

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

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:

When heated to decomposition it emits toxic fumes of nitrogen oxides 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. 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. 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 breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, metals, acids.

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. 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. (Powdered solid.)**
Odor:	**Not available.**
Taste:	**Not available.**
Molecular Weight:	**240.35 g/mole**
Color:	**White. Off-white.**
pH (1% soln/water):	**Not applicable.**
Boiling Point:	**Not available.**
Melting Point:	**168.5°C (335.3°F)**

Section 9: Physical and Chemical Properties (Continued)

Critical Temperature:	**Not available.**
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:	**Insoluble in cold water.**

Section 10: Stability and Reactivity Data

Stability: **The product is stable.**

Instability Temperature: **Not available.**

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

Incompatibility with various substances: **Reactive with oxidizing agents, metals, acids.**

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

Special Remarks on Reactivity: **Moisture sensitive Sensitive to light.**

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

Polymerization: **Will not occur.**

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.
Toxicity to Animals: LD50: Not available. LC50: Not available.
Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant).
Special Remarks on Toxicity to Animals: Not available.

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

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Causes skin irritation. Eyes: Causes eye irritation. Inhalation: Causes upper respiratory tract and mucous membrane irritation. Ingestion: May be harmful if swallowed. May cause digestive tract irritation. The toxicological properties of this substance have not been fully investigated.

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 product itself and its products of degradation are not 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: **TSCA 8(b) inventory: 3,3',5,5'-Tetramethylbenzidine**

Other Regulations:
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): **Not controlled under WHMIS (Canada).**

DSCL (EEC):
R36/37/38- Irritating to eyes, respiratory system and skin. S24/25- Avoid contact with skin and eyes. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of water. S37/39- Wear suitable gloves and eye/face protection.

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:

Section 15: Other Regulatory Information (Continued)

Protective Equipment:

Gloves. Lab coat. 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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