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

DIMETHYL YELLOW
(pH INDICATOR) (C.I.NO. 11020)
(pH 2.9-4.0 Red to Orange Yellow)
MSDS CAS: 60-11-7

Section 1: Chemical Product and Company Identification

Section 1: Chemical Product

Product Name: DIMETHYL YELLOW

CAS#: 60-11-7

Synonym: Methyl Yellow; p-Dimethylaminoazobenzene
Butter Yellow; C.I. Solvent Yellow 2; 4-N,N-Dimethylamino)azobenzene;
4-(Phenylazo)-N,N-dimethylaniline; 4-Dimethylaminoazobenzene;
4-Dimethylaminoazobenzol; N,N-Dimethyl azoaniline;

Chemical Name: Dimethyl Yellow, Aniline.

Chemical Formula: $C_{14}H_{15}N_3$

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
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Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Dimethyl Yellow	60-11-7	100

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Section 2: Composition and Information on Ingredients (Continued)

Toxicological Data on Ingredients: **Dimethyl Yellow: ORAL (LD50): Acute: 200 mg/kg [Rat]. 300 mg/kg [Mouse].**

Section 3: Hazards Identification

Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Severe over-exposure can result in death.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Classified as cancer-suspect agent by OSHA. Classified as potential occupational carcinogen by NIOSH. Classified 2B (Possible for human.) by IARC. Classified as reasonably anticipated to be a human carcinogen by NTP. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, liver. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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 immediate medical attention.

Section 4: First Aid Measures (Continued)

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

Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:
If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

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:
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.

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

Section 5: Fire and Explosion Data (Continued)

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

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill:
Poisonous 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.

Section 7: Handling and Storage

Precautions:
Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe dust. 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, 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.

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Section 8: Exposure Controls/Personal Protection (Continued)

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	**: 225.29 g/mole**
Color	**: Yellow.**
pH (1% soln/water)	**: Not available.**
Boiling Point	**: Not available.**
Melting Point	**: 114°C (237.2°F) - 117°C**
Critical Temperature	**: Not available.**
Specific Gravity	**: Not available.**
Vapor Pressure	**: Not available.**
Vapor Density	**: Not available.**
Volatility	**: Not available.**
Odor Threshold	**: Not available.**
Water/Oil Dist. Coeff.	**: Not available.**
Ionicity (in Water)	**: Not available.**
Dispersion Properties	**: See solubility in water, diethyl ether.**
Solubility	**: Soluble in diethyl ether. Insoluble in cold water, hot water. Soluble in petroleum ether, benzene, alcohol, mineral acids, oils, $CHCl_3$**

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Section 10: Stability and Reactivity Data

Stability: **The product is stable.**

Instability Temperature: **Not available.**

Conditions of Instability: **Excess heat, incompatible materials.**

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

Corrosivity: **Not available.**

Special Remarks on Reactivity: **Also incompatible with acid anhydrides.**

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): 200 mg/kg [Rat].**

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: Classified + (Proven.) by OSHA+ (Proven.) by NIOSH. Classified 2B (Possible for human.) by IARC. Classified 2 (Some evidence.) by NTP. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys, liver.

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

Special Remarks on Toxicity to Animals: **Not Available.**

Special Remarks on Chronic Effects on Humans:
May affect genetic material (mutagenic). May cause cancer. May because adverse reproductive effects and birth defects (teratogenic) based on animal test data.

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Section 11: Toxicological Information (Continued)

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Causes skin irritation. Can cause rash and burning feeling on contact Eyes: Causes eye irritation. Inhalation: May be harmful if inhaled. May cause respiratory tract irritation. Symptoms may include coughing, and wheezing, dyspnea. Other symptoms may include bloody sputum, and bronchial secretions. Ingestion: Harmful if swallowed. May cause digestive tract disturbances. May affect respiration (dyspnea, cyanosis). May form methemoglobin which in sufficient concentration causes cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood). Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may affect the liver (enlarged liver, liver dysfunction), and kidneys (kidney dysfunction, frequent urination, hematuria, dysuria), blood, and may also cause cancer (kidney and liver tumors) Skin: Prolonged or repeated skin contact may cause dermatitis.

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.

Section 14: Transport Information

Land transport (ADR-RID)

Proper shipping name: -
UN N°: 2811
H.I. nr: 60
ADR - Class: 6.1
Labelling - Transport: 6.1 : Toxic substances.
ADR - Group: III

Sea transport (IMDG) [English only]

Proper shipping name: -
UN N°: 2811
IMO-IMDG - Class or division: 6.1 : Toxic substances.
IMO-IMDG - Packing group: III

Air transport (ICAO-IATA) [English only]

Proper shipping name: n-DECANE
UN N°: 2811
IATA - Class or division: 6.1 : Toxic substances.
IATA - Packing group: III

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: p-Dimethylaminoazobenzene California prop. 65 (no significant risk level): p-Dimethylaminoazobenzene: 0.0002 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: p-Dimethylaminoazobenzene Connecticut carcinogen reporting list.: p-Dimethylaminoazobenzene Connecticut hazardous material survey.: p-Dimethylaminoazobenzene Illinois toxic substances disclosure to employee act: p-Dimethylaminoazobenzene Illinois chemical safety act:

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Section 15: Other Regulatory Information (Continued)

p-Dimethylaminoazobenzene New York release reporting list: p- Dimethylaminoazobenzene Minnesota: p-Dimethylaminoazobenzene Massachusetts RTK: p-Dimethylaminoazobenzene Massachusetts spill list: p-Dimethylaminoazobenzene New Jersey: p-Dimethylaminoazobenzene New Jersey spill list: p-Dimethylaminoazobenzene Louisiana spill reporting: p-Dimethylaminoazobenzene California Director's List of Hazardous Substances: p-Dimethylaminoazobenzene TSCA 8(b) inventory: p-Dimethylaminoazobenzene SARA 313 toxic chemical notification and release reporting: p-Dimethylaminoazobenzene CERCLA: Hazardous substances.: p- Dimethylaminoazobenzene: 10 lbs. (4.536 kg)

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): CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC): R25- Toxic if swallowed. R36/38- Irritating to eyes and skin. R45- May cause cancer. S28- After contact with skin, wash immediately with plenty of 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).

HMIS (U.S.A.):

Health Hazard: 2
Fire Hazard: 1
Reactivity: 1
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. Splash goggles.

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Section 16 - Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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