

## **MATERIAL SAFETY DATA SHEET**

### **D-METHIONINE 99% EXTRA PURE** **MSDS CAS : 348-67-4**

#### **Section 1: Chemical Product and Company Identification**

##### **Section 1: Chemical Product**

**Product Name : D-METHIONINE 99% EXTRA PURE**

**CAS#: 348-67-4**

**C.I. No.: Not available.**

**Synonym : Not available.**

**Chemical Name: D-METHIONINE 99% EXTRA PURE**

**Chemical Formula:**

**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
D-METHIONINE	348-67-4	100

**Toxicological Data on Ingredients : D-methionine: ORAL (LD50): Acute: 36000 mg/kg [Rat].**

## Section 3: Hazards Identification

### Potential Acute Health Effects:

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

### Potential Chronic Health Effects:

**CARCINOGENIC EFFECTS:** Not available. **MUTAGENIC EFFECTS:** Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. **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. Cold water may be used. Get medical attention if irritation occurs.

### **Skin Contact:**

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

### **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. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

### **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:** CLOSED CUP: 284°C (543.2°F).

**Flammable Limits:** Not available.

## Section 5: Fire and Explosion Data (Continued)

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).

**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.

**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:** Not available.

## 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 locked up.. 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. 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:

Light Sensitive. Store in light-resistant container. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

## 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. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this 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. (Solid powder.)
Odor	: Slight
Taste	: Sulfurous.
Molecular Weight	: 149.21 g/mole
Color	: White
pH (1% soln/water)	: 5.85 [Acidic.]
Boiling Point	: Not available.
Melting Point	: 281°C (537.8°F)
Critical Temperature	: Not available.
Specific Gravity	: 1.34 (Water = 1).
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	: See solubility in water, methanol.
Solubility	: Soluble in cold water, methanol. Insoluble in diethyl ether, acetone. Insoluble in petroleum ether, absolute alcohol, benzene. Soluble in warm diluted alcohol. Slightly soluble in acetic acid

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Incompatible materials. Light

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

**Corrosivity:** Not available.

**Special Remarks on Reactivity:** Light Sensitive.

**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): 36000 mg/kg [Rat].

**Chronic Effects on Humans:** MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells.  
Mutagenic for bacteria and/ or yeast.

**Other Toxic Effects on Humans:**

Slightly 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 cause adverse reproductive effects (female fertility and fetotoxicity) and birth defects (developmental abnormalities) based on animal data. No human data found at this time. May affect genetic material. [RTECS: DNA damage (Human cell), and unscheduled DNA synthesis (Human fibroblast cell)].

**Special Remarks on other Toxic Effects on Humans:** Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: Dust may cause eye irritation. Inhalation: Dust may cause respiratory tract irritation. Ingestion: May cause gastrointestinal (digestive) tract irritation. May affect liver, blood, metabolism, behavior and respiration. 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 products of degradation are more toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

### Waste treatment

## 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: L-methionine

**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):** R40- Possible risks of irreversible effects. S2- Keep out of the reach of children. S36/37- Wear suitable protective clothing and gloves.

**HMIS (U.S.A.):**

**Health Hazard: 1**

**Fire Hazard: 1**

**Reactivity: 0**

**Personal Protection: E**

**National Fire Protection Association (U.S.A.):**

**Health: 1**

**Flammability: 1**

**Reactivity: 0**

**Specific hazard:**

**Protective Equipment:** Not applicable. Lab coat. Not applicable. Safety glasses.

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## **Section 16 - Additional Information**

**References:** Not available.

**Other Special Considerations:** Not available.

### ***Disclaimer:***

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