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

# ALUMINIUM METAL FINE POWDER

**(Extra Pure)**

**MSDS CAS: 7429-90-5**

## Section 1: Chemical Product and Company Identification

**Section 1: Chemical Product**

**Product Name: ALUMINIUM METAL FINE POWDER**
**CAS#: 7429-90-5**
**Synonym: Aluminum metal pellets; Aluminum metal sheet; Aluminum metal shot; Aluminum metal wire**
**Chemicals Name: Aluminum**
**Chemical Formula: Al**

**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 |
|---|---|---|
| Aluminum | 7429-90-5 | 98 |

**Toxicological Data on Ingredients: Aluminum LD50: Not available. LC50: Not available.**

## Section 3: Hazards Identification

**Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant). Non-irritating to the eyes. Non-hazardous in case of ingestion.**

**Potential Chronic Health Effects: CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs. 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 if irritation occurs.**

**Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.**

**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 immediately.**

**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. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.**

**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:** Non-Flammable.
**Auto-Ignition Temperature:** Not available.
**Flash Points:** Not available.
**Flammable Limits:** Not available.
**Products of Combustion:** Some metallic oxides.
**Fire Hazards in Presence of Various Substances:** Not available.
**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:** Do not ingest. 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, acids, alkalis.

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

## 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. Gloves.**

**Personal Protection in Case of a Large Spill: Splash goggles. Lab coat. Gloves.**

**Exposure Limits: TWA: 5 (mg(Al)/m) from ACGIH (TLV) [United States] Inhalation (pyro powders, welding fumes) TWA: 10 (mg(Al)/m) from ACGIH (TLV) [United States] Inhalation (metal dust) Consult local authorities for acceptable exposure limits.**

## Section 9: Physical and Chemical Properties

**Physical state and appearance: Solid**

| | |
|---|---|
| **Odor** | **: Odorless.** |
| **Taste** | **: Not available.** |
| **Molecular Weight** | **: 26.98 g/mole** |
| **Color** | **: Grey powder** |
| **pH (1% soln/water)** | **: Not available.** |
| **Boiling Point** | **: 2327°C (4220.6°F)** |
| **Melting Point** | **: 660°C (1220°F)** |
| **Critical Temperature** | **: Not available.** |
| **Specific Gravity** | **: Density: 2.7 (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** | **: Not available.** |
| **Solubility** | **: Insoluble in cold water, hot water. Soluble in alkalies, Sulfuric acid, Hydrochloric acid. Insoluble in concentrated Nitric Acid, hot Acetic acid.** |

## Section 10: Stability and Reactivity Data

**Stability** : The product is stable.
**Instability Temperature**: Not available.
**Conditions of Instability**: Incompatible materials, exposure to moist air or water.
**Incompatibility with various substances**: Reactive with oxidizing agents, acids, alkalis.
**Corrosivity** : Not available.
**Special Remarks on Reactivity**: Moisture sensitive. Aluminum reacts vigorously with Sodium Hydroxide. Aluminum is also incompatible with strong oxdizers, acids, chromic anhydride, iodine, carbon disulfide, methyl chloride, and halogenated hydrocarbons, acid chlorides, ammonium nitrate, ammonium persulfate, antimony, arsenic oxides, barium bromate, barium chlorate, barium iodate, metal salts
**Special Remarks on Corrosivity**: In moist air, oxide film forms which protects metal from corrosion. Aluminum is strongly electropositive so that it corrodes rapidly in contact with other metals.
**Polymerization** : Will not occur.

## Section 11: Toxicological Information

**Routes of Entry**: Not available.
**Toxicity to Animals**: Not available.
**Chronic Effects on Humans**: Not available.
**Other Toxic Effects on Humans**: Slightly hazardous in case of skin contact (irritant). Non-hazardous in case of ingestion. Non-hazardous in case of inhalation.
**Special Remarks on Toxicity to Animals**: Not available.
**Special Remarks on Chronic Effects on Humans**: Not available.
**Special Remarks on other Toxic Effects on Humans**: Acute Potential Health Effects: Skin: Exposure to aluminum may cause skin irritation. Eyes: Not expected to be a hazard unless aluminum dust particles are present. Exposure to aluminum dust may cause eye irritation by mechanical action. Aluminum particles deposited in the eye are generally innocous. Inhalation: Not expected to be an inhalation hazard unless it is heatedor if aluminum dust is present it heated or in dust form, it may cause respiratory tract irritation. Heating Aluminum can release Aluminum Oxide fumes and cause fume metal fever when inhaled. This is a flu-like illness with symptoms of metallic taste, fever, chills, aches, chest tightness, and cough. Ingestion: Acute aluminum toxicity is unlikely. Chronic Potential Health Effects: Skin: Contact dermatitis occurs rarely after aluminum exposure. Most cases of aluminum toxicity in humans are in one of two categories: patients with chronic renal failure, or people exposed to aluminum fumes or dust in the workplace. The main source of aluminum in people with chronic renal failure was in the high aluminum content of the water for the dialysate used for dialysis in the 1970's. Even though this problem was recognized and corrected, aluminum toxicity continues to occur in some individuals with renal who chronically ingest aluminum-containing phosphate binders or antacids. Inhalation: Chronic exposure to aluminum dust may cause dyspnea, cough, asthma, chronic obstructive lung disease, pulmonary fibrosis, pneumothorax, pneumoconiosis, encephalopathy, weakness, incoordination and epileptiform seizures and other neurological symptoms similar to that described

## Section 11: Toxicological Information (Continued)

**for chronic ingestion. Hepatic necrosis is also a reported effect of exposure to airborne particulates carrying aluminum. Ingestion: Chronic ingestion of aluminum may cause Aluminum Related Bone Disease or aluminum-induced Osteomalacia with fracturing Osteodystrophy, microcytic anemia, weakness, fatigue, visual and auditory hallucinations, memory loss, speech and language impairment (dysarthria, stuttering, stammering, anomia, hypofluency, aphasia and eventually, mutism), epileptic seizures(focal or grand mal), motor disturbance(tremors, myoclonic jerks, ataxia, convulsions, asterixis, motor apraxia, muscle fatigue), and dementia (personality changes, altered mood, depression, diminished alertness, lethargy, 'clouding of the sensorium', intellectual deterioration, obtundation, coma),and altered EEG.**

## 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: Not available.**

## Section 14: Transport Information

**Land transport (ADR-RID)**

**Proper shipping name : ALUMINIUM POWDER, UNCOATED**
**UN N° : 1396**
**ADR – Class : 4.3**

# Section 14: Transport Information (continued)

**Sea transport (IMDG) [English only]**

**Proper shipping name:** ALUMINIUM POWDER, UNCOATED
**UN N°:** 1396
**IMO-IMDG - Class or division:** 4.3: Corrosive substance.
**IMO-IMDG - Packing group:** II

**Air transport (ICAO-IATA) [English only]**

**Proper shipping name:** ALUMINIUM POWDER, UNCOATED.
**UN N°:** 1396
**IATA - Class or division:** 4.3: Corrosive substance.
**IATA - Packing group:** II

# 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 birth defects which would require a warning under the statute: No products were found. 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: No products were found. Connecticut hazardous material survey. Aluminum Illinois toxic substances disclosure to employee act: Aluminum Rhode Island RTK hazardous substances: Aluminum Pennsylvania RTK: Aluminum Minnesota: Aluminum Massachusetts RTK: Aluminum New Jersey: Aluminum New Jersey spill list: Aluminum California Director's List of Hazardous Substances: Aluminum TSCA 8(b) inventory: Aluminum SARA 313 toxic chemical notification and release reporting: Aluminum
**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):**
**HMIS (U.S.A.):**
**Health Hazard:** 1
**Fire Hazard:** 0

## Section 15: Other Regulatory Information (continued)

**Reactivity: 0**
**Personal Protection: B**
**National Fire Protection Association (U.S.A.):**
**Health: 1**
**Flammability: 1**
**Reactivity: 0**
**Specific hazard:**
**Protective Equipment: Gloves. Lab coat. Not applicable. 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.**