

## **MATERIAL SAFETY DATA SHEET**

### **I. PRODUCT IDENTIFICATION**

**Manufacturer/Supplier:**

Stanford Advanced Materials  
23661 Birtcher Dr., Lake Forest, CA 92630  
Tell: +1 (949) 407-8904  
Fax +1 (949) 812-6690

**Product Name:** Yttrium Nitrate  
**Formula:**  $Y(NO_3)_3 \cdot 6H_2O$   
**CAS Number:** 10361-93-0 (anhydrous salt)

### **II. HAZARDOUS INGREDIENTS**

**Hazardous Ingredient:** Yttrium Nitrate

**Percent (%):** 0-100  
**OSHA/PEL:** 1 mg (Y)/m<sup>3</sup>  
**ACGIH/TLV:** 1 mg (Y)/m<sup>3</sup>

### **III. PHYSICAL DATA**

**Boiling Point:** Decomposes  
**Freezing/Melting Point:** Loses 3H<sub>2</sub>O at 100 °C  
**Solubility in H<sub>2</sub>O:** Soluble  
**Specific Gravity:** 2.68  
**Appearance and Odor:** Reddish-white to white crystalline solid, odorless.

### **IV. FIRE AND EXPLOSION HAZARDS DATA**

**Flash Point:** N/A

**Autoignition Temperature:** No data

**Flammable Limits in Air:** Lower: N/A Upper: N/A

**Extinguishing Media:** Use water, carbon dioxide, dry powder extinguishing agents, dry sand, or dry ground dolomite.

**Special Firefighting Procedures:** Use normal firefighting procedures which include wearing NIOSH/MSHA approved self-contained breathing apparatus, flame and chemical resistant clothing: hats, boots and gloves. If without risk, remove material from fire area.

**Fire & Explosion Hazards:** Fire in storage area could cause release of hazardous gases (oxides of nitrogen). May react violently with readily oxidizable substances.

## **V. HEALTH HAZARD INFORMATION**

### **Effects of Exposure:**

#### **Acute Effects:**

**Inhalation:** Irritates respiratory tract. May cause hypotension and cyanosis.

**Ingestion:** Ingestion of large amounts of nitrates may be serious or even fatal. May cause hypotension and cyanosis. Symptoms may include dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, convulsions and collapse.

**Skin:** Causes skin irritation.

**Eye:** Causes eye irritation.

**Other:** May have an anticoagulant effect on the blood.

#### **Chronic Effects:**

**Inhalation:** May cause hypotension and cyanosis.

**Ingestion:** Small repeated doses of nitrates may lead to weakness, general depression, headache and mental impairment. May cause hypotension and cyanosis.

**Skin:** None known.

**Eye:** None known.

**Medical Conditions Generally Aggravated by Exposure:** None known

**Most Likely Routes of Entry:** Ingestion

**Carcinogenicity:** NTP: No IARC: No OSHA: No EPA: No

## **EMERGENCY AND FIRST AID PROCEDURES:**

**INHALATION:** No specific information available, one should obtain medical attention.

**INGESTION:** No data available but one should obtain medical attention.

**SKIN:** Remove contaminated clothing, flood skin with large amounts of water. If irritation persists seek medical attention.

**EYE:** Immediately flush eyes, including under eyelids, with large amounts of water for at least 15 minutes. Call a physician.

## **VI. REACTIVITY DATA**

**Stability:** Stable

**Conditions to Avoid:** Incompatibles, thermal decomposition.

**Incompatibility (Materials to Avoid):** Combustible substances, metal cyanides, citric acid, oxidizable substances, aluminum powder, phosphorus, stannous chloride, esters, metal phosphinates, potassium hexanitrocobaltate (3-), acids, acid fumes.

**Hazardous Decomposition Products:** Oxides of nitrogen.

**Hazardous Polymerization:** Will not occur.

## **VII. SPILL OR LEAK PROCEDURES**

**Steps to Be Taken in Case Material is Released or Spilled:** Wearing full protective equipment, cover spill with dry sand or vermiculite. Mix well and carefully transfer to a container.

**Waste Disposal Information:** Dispose of in accordance with Federal, State and Local waste disposal regulations.

## **VIII. SPECIAL PROTECTION INFORMATION**

**Respiratory Protection:** Use a high efficiency particle respirator if PEL is exceeded.

**Ventilation:** Laboratory fume hood.

**Protective Gloves:** Rubber Gloves

**Eye/Face Protection:** ANSI approved safety goggles.

**Other Protective Equipment:** Lab coat and apron, flame and chemical resistant coveralls.

## **IX. SPECIAL PRECAUTIONS**

**Precautions to Be Taken in Handling and Storage:** Keep container tightly closed. Store in a cool, dry, well-ventilated area. Wash thoroughly after use.

**Work Practices:** Implement engineering and work practice controls to reduce and maintain concentration of exposure. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air. Maintain eyewash capable of sustained flushing, safety drench shower and facilities for washing.

**Danger: Oxidizer, irritates skin and eyes.**

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