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MSDS: LITHIUM METATUNGSTATE (LMT)

HAZARDOUS INGREDIENTS/IDENTITY INFORMATION:

Trade Name: Lithium Metatungstate

Ingredient Name	CAS #	OSHA PEL	ACGIH TLV	OTHER*	%
Lithium Metatungstate	127463-01-8	1 MG/M ³ as tungsten STEL-3 MG/M ³	1MG/M ³ as tungsten STEL-3 MG/M ³	BC	79.2
Water	7732-18-5			A	20.8

A - EPA TSCA Inventory List 1989 B - Canadian Ingredient Disclosure List C - SARA Title III Sect 311 and 312

CHEMICAL CHARACTERISTICS:

Boiling Point: NA

Melting Point: NA

Freezing Point: NA

Specific Gravity (H₂O = 1): Approx. 3.7

Percent Volatile by Volume: 20%

Theoretical VOC Content (Percent of Weight): 0

Weight Per Gallon: 30.9

pH: 6

Conc: NA

Vapor Pressure (mm of HG): NA

Vapor Density (Air = 1): NA

Density: NA

Evaporation Rate Basis (Water = 1): NA

Solubility in Water: Soluble

Reactivity in Water: None

Appearance and Odor: High specific gravity supersaturated solution
with no odor and a pale yellow color.

FIRE AND EXPLOSION HAZARD DATA:

Flash point: n/a

Method: n/a

Flammable limits in air (%): Upper = n/a Lower = n/a

Auto ignition temperature: n/a

NFPA codes: Health = 1; Flammability = 0; Reactivity = 0; Other = 0

HMS codes: Health = 1; Flammability = 0; Reactivity = 0; Protection = 0

Extinguisher media: Choose media suitable for surrounding materials.

Unusual fire and explosion hazards: None

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Extinguisher Media: Choose media suitable for surrounding materials.

Special fire fighting procedures: Water spray should be used to cool containers exposed to fire and to disperse vapors. As in any fire situation, use NIOSH/MSHA approved positive pressure breathing apparatus, when any material is involved in a fire.

REACTIVITY DATA:

Is this chemical stable under normal conditions of handling/Storage? Yes

Conditions to Avoid (Regarding Stability):

Keep away from material listed in incompatibility section.

Incompatibility (Materials to Avoid):

Tungsten may react with bromine trifluoride, chlorine trifluoride, fluorine, iodine penta fluoride, lead dioxide. Lithium may react with arsenic, beryllium, bromine, bromoform, carbides, carbon dioxide, carbon monoxide and water, carbon tetrabromide, carbon tetrachloride, chlorine, chloroform, chromic oxide, chromium, chromium trichloride, cobalt alloys, diborane, ferrous sulfide, halogenated hydrocarbons, hydrogen iodine, iodoform, iron alloys, maleic anhydride, manganese alloys, methyl dichloride, methyl diiodide, molybdenum trioxide, monofluorotrichloromethane, nickel alloys, niobium pentoxide, nitric acid, nitrogen, organic matter, oxygen, phosphorus, platinum, rubber, sillicates, sodium nitrite, sulfur, tantalum pentoxide, tetrachloroethylene, titanium dioxide, trichloroethylene, trichlorotrifluoroethane, tungsten trioxide, vanadium, vanadium pentoxide, zirconium tetrachloride.

Hazardous Decomposition Products:

May release lithium oxide and other toxic and irritating fumes upon decomposition. Solutions begin to decompose 80°C/175°F.

Hazardous Polymerization Possible? No

Conditions to Avoid (Regarding Polymerization): None

HEALTH HAZARDS:

Routes of Entry: Inhalation, ingestion

SIGNS AND SYMPTOMS OF—

Acute Overexposure: Soluble tungsten compounds have the potential to cause systemic effects involving the gastrointestinal tract and the central nervous system. Dust or mist may irritate the eyes, skin and respiratory system. The oral lethal dose of similar tungsten salts is approximately 1000 mg/kg (oral,rats). Laboratory animal experiments show symptoms of anorexia colic, incoordination of movement, trembling, dyspnea and weight loss. Lithium compounds have been implicated development of aplastic anemia and may cause dizziness, prostration, kidney damage, anorexia, nausea, apathy, and coma.

Chronic Overexposure: Central nervous system disturbances.Chemical Listed As a Carcinogen Or Potential Carcinogen

National Toxicology Program: No

IARC Monographs: No

OSHA: No

Medical Conditions Generally Aggravated By Exposure: No specific condition specified.

EMERGENCY AND FIRST AID PROCEDURES:

Emergency Phone Number: 1-800-535-5053

Inhalation: Immediately remove victim to fresh air. If victim is not breathing, initiate CPR. Seek medical attention.

Eye Contact: Immediately flush with water for 15 minutes and seek medical attention.

Skin Contact: Immediately wash with soap and water. If irritation results, seek medical attention.

Ingestion: Immediately seek medical attention. Call local poison control center. Consult 29 CFR 1910.151 requirements for medical services.

PRECAUTIONS FOR SAFE HANDLING AND USE:

Precautions To Be Taken In Handling And Storage: Avoid contact with skin and eyes. Harmful if swallowed. Avoid breathing mists or dust. Store in a cool, dry, well ventilated space. Store away from incompatible substances listed in incompatibility section.

Other Precautions: Wear personal protective equipment to prevent excessive skin and/or eye contact.

Steps To Be Taken In Case Material Is Released Or Spilled: Wear personal protective equipment. Clean up the absorbed material and place in a suitable container for disposal.

Waste Disposal Methods:This substance is not currently listed as a hazardous waste. Ordinary disposal measures should be suitable. Observe all federal, state, and local regulations when disposing of this chemical substance.

CONTROL MEASURES:

Respiratory Protection: Respiratory protection not generally required under normal use conditions. If concentrations do not exceed 10 times the PEL, an air purifying respirator approved for dusts, mists, and fumes will be suitable. In higher concentrations, a greater level of protection is required. Refer to 29 CFR 1910.134 for guidance.

Ventilation Requirements: General exhaust ventilation should be maintained.

Local Exhaust: Suggested to control potential decomposition products during heating.

Mechanical: General exhaust ventilation is suggested.

Protective Gloves: Any type glove to prevent excessive skin contact is suggested.

Eye Protection: Safety glasses. Consult 29 CFR 1910.133 for general requirements for eye and face protection.

Other Protective Clothing Or Equipment: None specifically indicated. Consult 29 CFR 1910.132 general requirements for personal protective equipment.

Work/Hygienic Practices: Wash thoroughly before eating, drinking, smoking, or leaving the work place. Consult 29 CFR 1910.141 general requirements for sanitation.

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