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MATERIAL SAFETY DATA SHEET

Section 1- PRODUCT IDENTIFICATION

COMPOSITION BeO	PRODUCT NAME Beryllium Oxide
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Section 2- HAZARDOUS INGREDIENTS

Note: Products under normal conditions do not represent an inhalation, ingestion or contact health hazard.

MATERIAL OR COMPONENT	CAS NUMBER	WT%	EXPOSURE LIMITS	
			OSHA PEL (Mg/M3)	ACGIH TLV(MG/M3)
Beryllium Oxide	1304-56-9	100	2ug(Be)/m³	2ug(Be)/m³

Section 3- PHYSICAL DATA

MATERIAL IS (AT NORMAL CONDITIONS) <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	APPEARANCE AND ODOR Light, white amorphous powder, no odor
MELTING POINT (BASE METAL)	SPECIFIC GRAVITY 3.01

Section 4- FIRE AND EXPLOSION

Flash Point (Method Used) N/A	Flammable Limits N/A	LEL N.A.	UEL N.A.
EXTINGUISHING MEDIA N/A. Use extinguishing media for surrounding materials and type of fire.			
SPECIAL FIRED FIGHTING PROCEDURES Wear full face, self-contained breathing apparatus with full protective clothing. Isolate run-off to prevent environmental contamination.			
UNUSUAL FIRE AND EXPLOSION HAZARDS When heated to decomposition, beryllium oxide may emit toxic fumes of oxides of beryllium.			

Section 5- REACTIVITY DATA

STABILITY Stable	INCOMPATIBILITY (MATERIALS TO AVOID) Magnesium & Heat
CONDITIONS TO AVOID None	
HAZARDOUS DECOMPOSITION PRODUCTS Oxides of Beryllium.	

Section 6- HEALTH HAZARD GUIDE

MAJOR EXPOSURE HAZARD <input type="checkbox"/> Inhalation <input type="checkbox"/> Skin <input type="checkbox"/> Skin Absorption <input type="checkbox"/> Eye Contact <input type="checkbox"/> Ingestion
EFFECTS OF OVEREXPOSURE Exposure to beryllium compounds is by inhalation or locally on the skin. Exposure may cause dermatitis, chronic skin ulcers, rhinitis, nasopharyngitis, epistaxis, bronchitis, and in severe cases the development of acute pneumotitis with cough, scanty sputum, low-grade fever, rales, dyspnea, and substernal pain. There may be radiographic changes of the lungs which will typically show a diffuse haziness. May cause pulmonary edema and fatal pneumonitis. Accidental subcutaneous exposure can cause granulomatous tumors. INHALATION: May cause inflammation of lungs, nose, throat and mucus membrane of both the trachea and bronchi, hyperemia, edema, hemorrhage with mild edema of the brain, inflammation of the liver, focal hemorrhage of the spleen, granulomatous, crippling, incurable lung disease, pneumotitis, pulmonary dysfunction, heart enlargement and congest heart failure, cyanosis, enlargement of the liver and spleen, digital clubbing, formation of kidney stones, malignant tumors, cellular infiltration, interstices of various organs and tissues and calcific inclusions in cells and tissues. Berylliosis may cause coughing, chest pain, shortness of breath, weight loss, weakness and fatigue. Acute: POISON. May cause irritation to the upper respiratory tract, pneumotitis, nasopharyngitis, lung fibrosis, dyspnea. INGESTION: Acute; Considered to have low toxicity by ingestion. Poison by intravenous route. Chronic; no chronic health effects. SKIN CONTACT: Acute; May cause irritation. Chronic; no chronic health effects. EYE CONTACT: Acute; May cause irritation. Chronic; no chronic health effects. TARGET ORGANS: May affect lungs, thorax, respiration, liver and mucus membrane.
EMERGENCY & FIRST AID PROCEDURES INHALATION: Remove from exposed area to fresh air immediately; keep warm and quiet, give oxygen if breathing is difficult. Seek medical attention. INGESTION: If conscious give 1-2 glasses of milk or water and induce vomiting; seek medical attention. Never give anything by mouth or induce vomiting to an unconscious victim. SKIN CONTACT: Remove contaminated clothing; brush material off skin. Wash affected area with soap or mild detergent and large amounts of water until no evidence of the chemical remains. Seek medical attention. EYE CONTACT: Flush eyes with lukewarm water lifting up the upper and lower lids for at least fifteen minutes. Seek medical attention.

Section 7- SPILL OR LEAK PROCEDURES

SPILL OR LEAK PROCUDRES

Wear appropriate respiratory and protective equipment. Isolate the area where the spill occurred and provide ventilation. Vacuum up the spill using a high efficiently particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

WASTE DISPOSAL METHODS

Observe all federal, state and local regulations when storing or disposing.

Section 8- SPECIAL PROTECTION

RESPIRATORY

NIOSH/MSHA Approved respirator. Specific type- NIOSH approved dust, mist, and fume cartridge.

VENTILATION

Local exhaust: Maintain concentration at or below the PEL. Mechanical exhaust: Not recommended.

EYE PROTECTION & PROTECTIVE CLOTHING

Safety glasses, rubber gloves and protective gear suitable to prevent contamination.

Section 9- SPECIAL PRECAUTIONS

WORK/HYGIENIC/MAINTENANCE PRACTICES

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. 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.

Some of the chemicals listed herein are research or experimental substances, which may be toxic, as defined by various governmental regulations. In accordance with Environmental Protection Agency regulations and the Toxic Substance Control Act (TSCA), these materials should only be handled by, or under the direct supervision of a "technically qualified individual", as defined in 40 CFR710.2(aa)

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