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Material Safety Data Sheet

Lead

IV HEALTH HAZARD INFORMATION

Routes of Exposure When Processing or Handling

Inhalation	Dust, vapor and/or fume may be irritating to the respiratory system, and can result in both acute and chronic overexposure.
Skin Contact	Dust, vapor and/or fume may cause irritation.
Skin Absorption	Dust, vapor and/or fume are not readily absorbed through the skin.
Eye Contact	Dust, vapor and/or fume may cause irritation.
Ingestion	Dust, vapor and/or fume may be absorbed by the digestive system, and can result in both acute and chronic overexposure.

Effects of Overexposure

Acute Overexposure

If left untreated: May cause headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia and pain in legs, arms and joints.

Chronic Overexposure May produce many of the symptoms of acute short term exposure and may also cause central nervous system damage and gastrointestinal disturbances. Symptoms of central nervous system damage include: Fatigue, Headaches, tremors, hypertension, hallucinations, convulsions and delirium. Kidney dysfunction and possible injury has also been associated with chronic lead poisoning. Chronic over-exposure has also been implicated as a causative agent for the impairment of male and female reproductive organs but there is at present no substantiation of the implication. Pregnant women should be precluded from excessive exposure. Lead can cross the placental barrier and it is reported that infants with neurological disorders have been born to women who have had excessive exposure.

Emergency and First Aid Procedures

Eyes	Flush with copious quantities of water. Get immediate medical attention.
Skin	Wash thoroughly with soap and water.
Inhalation	Remove from exposure. Get medical attention if experiencing effects of overexposure.
Ingestion	Get immediate medical attention.

Notes to Physician

Lead and its inorganic compounds are neurotoxins which may produce peripheral neuropathy. For an overview of the effects of lead exposure, consult Occupational Safety and Health Administration Appendix A of Occupational Exposure to Lead (29CFR1910.1025).

V FIRE AND EXPLOSION DATA

Flash Point (Test Method)	Not Applicable		Autoignition Temperature	Not Applicable	
Flammable Limits in Air (% By Vol)		Lower	Not Applicable	Upper	Not Applicable
Extinguishing Media	Dry chemical or carbon dioxide should be used on surrounding fire. Do not use water on fires where molten metal is present.				
Special Fire Fighting Procedures	Use full body protective clothing and full-facepiece, self-contained breathing apparatus operated in a positive-pressure mode.				
Unusual Fire and Explosion Hazard	Molten metals produce fume, vapor and/or dust that may be toxic and/or respiratory irritants. The product, or its dust, can react vigorously with strong oxidizing agents.				

VI REACTIVITY DATA

Conditions Contributing To Instability	Not Applicable
Incompatibility	Strong oxidizers and this product may liberate hydrogen gas.
Hazardous Decomposition Products	High temperatures may produce heavy metal fume, vapor and/or dust.
Conditions Contributing to Hazardous Polymerization	Not Applicable

VII SPILL OR LEAK PROCEDURES

Steps To Be Taken if Material Is Released or Spilled	Dust material should be vacuumed, or wet swept where vacuuming is not feasible. Particulate matter should be stored in dry containers for later disposal. Do not use compressed air or dry sweeping as a means of cleaning.
Neutralizing Chemicals	Not Applicable
Waste Disposal Method	Dispose of toxic substances and hazardous wastes in accordance with local, state and federal regulations.

VIII SPECIAL PROTECTION INFORMATION

Ventilation Requirements	Ventilation, as described in the <u>Industrial Ventilation Manual</u> produced by the American Conference of Governmental Industrial Hygienists, shall be provided in areas where exposures are above the permissible exposure limits or threshold limit values specified by OSHA or other local, state and federal regulations.
SPECIFIC PERSONAL PROTECTION EQUIPMENT	
Respiratory	As specified by 29CFR1910.1025 Subpart (f) of the Federal Occupational Safety and Health Administration Standard for Occupational Exposure to Lead. Other local and state regulations may also apply.
Eye	Face shield or vented goggles should be used around molten metal.
Glove	Gloves should be worn when handling the product is necessary.
Other Clothing and Equipment	Coveralls, or other full body clothing, shall be worn during product use and properly laundered after use, with the wash water disposed of in accordance with local, state and federal regulations. Hard hat, safety boots and other safety equipment should be worn as appropriate for the industrial environment. Personal clothing and shoes should be protected from contamination with this product.

IX SPECIAL PRECAUTIONS**PRECAUTIONARY
STATEMENTS**

There are two major means of heavy metal absorption; namely, inhalation and ingestion. Most inhalation problems can be prevented with adequate use of aforementioned ventilation and respirator information. Always exercise normal, good personal hygiene prior to smoking or eating. Smoking and eating should be confined to non-contaminated areas.

Work clothes and equipment should remain in designated lead contaminated areas, and never taken home or laundered with personal clothing. Launder contaminated clothing before reuse.

Wash hands, face, neck and arms thoroughly before eating or smoking.

The product is intended for industrial use only, and should be isolated from children and their environment.

**OTHER HANDLING AND
STORAGE REQUIREMENTS**

Store in dry area where accidental contact with acids is not possible.

Avoid skin contact.

Adhere to all personal protection equipment procedures when handling, and ventilation requirements when heavy metal exposures are above permissible exposure limits or threshold limit values.

Before Using This Product Be Familiar With The Information Contained In:

The Federal Standard for Occupational Exposure to Lead (29CFR1910.1025): Published in the Federal Register on Tuesday, November 14, 1978, by the Occupational Safety and Health Administration.