

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME: PolyMag Iron Oxide Powder  
PRODUCT PART NUMBER: 448170

COMPANY IDENTIFICATION (USA): Eriez Magnetics  
2200 Asbury Road  
Erie, PA 16514-0608

COMPANY IDENTIFICATION (EUROPE): Eriez Magnetics Europe Ltd.  
Bedwas House Industrial Estate  
Bedwas, Caerphilly CF83 8YG UK

Information Phone in USA: 814-835-6000  
Information Phone in Europe: 44-29-208-68501  
Emergency Phone in USA: 814-835-6000  
Emergency Phone in Europe: 44-29-208-68501

## SECTION 2 – COMPOSITION & INGREDIENT INFORMATION (Elemental Analysis Calculated As Oxides)

<u>MATERIAL</u>	<u>CAS#</u>	<u>Percent</u>	<u>OSHA PEL mg/m<sup>3</sup></u>	<u>ACGIH TLV mg/m<sup>3</sup></u>
Iron Oxide (Fe <sub>3</sub> O <sub>4</sub> )	1309-38-2	94 – 97	0 (dust)	5.0 (fume)
Quartz (SiO <sub>2</sub> )		1 – 3.5	0.1 (resp. dust)	0.1 (resp. dust)
Other Metal Oxides		0.2 – 3.0	NA	0.05 (resp. dust)

PEL & TLV for respirable fraction only; based on crystalline silica (quartz).

## SECTION 3 - HEALTH HAZARD IDENTIFICATION

PRIMARY ROUTE (S) OF ENTRY: INHALATION [ X ] SKIN [ X ] INGESTION [ X ]

EFFECTS OF OVEREXPOSURE:

**INHALATION:** As a nuisance dust, iron oxide does not produce significant changes in the upper respiratory tract, when exposures are kept within the OSHA permissible exposure limits. Acute exposures to dust may cause dryness or mechanical irritation in throat. Chronic exposure (10 – 40 years) to dusts containing a high concentration of respirable dust may produce siderosis with changes visible on chest X-ray. Silica dust in the respirable range has been associated with silicosis.

**SKIN:** No significant effects have been noted. Like other nuisance dusts, it may cause a mechanical irritation.

**EYES:** High dust concentrations may be irritating to the eyes.

INGESTION: No adverse effects are expected.

#### SECTION 4 – FIRST AID MEASURES

**INHALATION:** Remove to fresh air. If not breathing then give artificial respiration. Call a physician as quickly as possible.

**SKIN:** Rinse skin with water and wash with soap and water

**EYES:** Flush eyes with liberal amounts of water for at least 15 minutes lifting eyelids periodically to remove contamination. Contact a physician if irritation develops.

**INGESTION:** Never give anything by mouth to someone who is unconscious or convulsing. If the victim is responsive, give him/her several glasses of water to drink. Seek prompt medical assistance for further treatment, observation, and support after first aid.

#### SECTION 5 - FIRE FIGHTING MEASURES

**FLASH POINT.....:** NE

**AUTOIGNITION TEMPERATURE.....:** NE

**FLAMMABLE LIMITS.....:** LEL - NE, UEL - NE

**EXTINGUISHING MEDIA.....:** Iron oxide does not burn. Use the appropriate extinguishing agents suitable for the surrounding fire.

**SPECIAL FIRE FIGHTING PROCEDURES:** This material is non-combustible. Wear a self-contained breathing apparatus with a full-face piece in the pressure-demand or positive-pressure mode for protection against the dust and/or fumes that can occur during fire conditions.

**UNUSUAL FIRE & EXPLOSION HAZARDS:** None

#### SECTION 6 – ACCIDENTAL RELEASE MEASURES

**SPILL OR LEAK CLEANUP PROCEDURES:** Avoid excessive generation of dust. If excessive dust is generated, wear appropriate respiratory protection. Wet area down to suppress dust generation, shovel or sweep material into a suitable container for reclamation or disposal.

#### SECTION 7 - HANDLING AND STORAGE

**HANDLING AND STORING PRECAUTIONS:** Material should be stored in a dry climate controlled area to prevent clumping of the product. Store this product away from incompatible materials. Protect containers from physical damage, use with adequate ventilation, do not create dusty conditions and practice good housekeeping to minimize the accumulation of dust.

#### SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION EQUIPMENT

RESPIRATOR PROTECTION: Use a NIOSH approved air respirator in dust conditions that exceed OSHA PEL's or ACGIH TLV's. Respirator cartridges should be NIOSH approved for respirable dust.

VENTILATION: Use local exhaust and/or dilution ventilation, as needed to keep airborne dust below OSHA PEL's or TLV.

HAND PROTECTION: General service gloves are recommended for persons demonstrating susceptibility to irritation.

EYE PROTECTION: Wear safety glasses with side shields and/or goggles when necessary to prevent dust from entering eyes.

OTHER PROTECTION: Use adequate work clothing and shoes to minimize the physical hazards associated with handling this material. Wash hands thoroughly after handling this material and before eating, drinking or smoking. Eye wash stations should be available to flush eyes if necessary.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT .....: NE  
VAPOR PRESSURE (mm Hg).....: NE  
VAPOR DENSITY (Air = 1).....: NE  
MELTING POINT.....: Approximately 2850° F  
APPARENT DENSITY .....: 140 to 160 lbs/ft<sup>3</sup>  
PERCENT VOLATILITY BY VOLUME (%).....: Negligible  
EVAPORATION RATE (Butyl Acetate = 1).....: NA  
SOLUBILITY IN WATER.....: Insoluble  
APPEARANCE AND ODOR .....: Gray black powder with no distinctive odor  
MOLECULAR FORMULA .....: Fe<sub>3</sub>O<sub>4</sub>

## SECTION 10 – STABILITY & REACTIVITY

STABILITY: UNSTABLE [ ] STABLE [ X ]

INCOMPATIBILITY (MATERIALS TO AVOID): Hydrazine, Calcium Hypochlorite, Performic Acid and Bromine Pentafluoride

HAZARDOUS DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION: MAY OCCUR ( ) WILL NOT OCCUR ( X )

CONDITIONS TO AVOID: Avoid generating dusts and/or fumes.

## SECTION 11 – TOXICOLOGICAL INFORMATION

KNOWN HAZARDS UNDER 29 CFR 1910.1200:

Excessive dust/fume levels produce non-specific irritation of the eyes and respiratory system.

TOXICITY DATA: See NIOSH RTECS for additional data

RAT, INTRAPERITONEAL, LD50: 5500 mg/kg

LISTED AS A CARCINOGEN OR A POTENTIAL CARCINOGEN:

NTP Yes ( ) / No ( X )

IARC Yes ( ) / No ( X )

OSHA Yes ( ) / No ( X )

## SECTION 12 – ECOLOGICAL INFORMATION

PERSISTENCY & DEGRADATION: This is a naturally occurring mineral. It does not degrade unless it is oxidized at temperatures greater than ~1700° F.

ECO-TOXICITY: Non-toxic mineral

## SECTION 13 – DISPOSAL INFORMATION

WASTE DISPOSAL METHOD: Dispose of in accordance with local, state and federal regulations. This material is not a hazardous waste by RCRA criteria. (40 CFR 261)

## SECTION 14 – TRANSPORTATION INFORMATION

LAND & SHIP TRANSPORT: Product is not hazardous; identification not necessary

## SECTION 15 – REGULATIONS

None Established

## SECTION 16 – FURTHER INFORMATION

MSDS DATE: December 19, 2011

REVISION #: 2

SUPERSEDES DATE: January 11, 2008

REASON FOR REVISION: Change Apparent Density and mailing address

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USER RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions – in addition to those described herein – are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

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