

# MATERIAL SAFETY DATA SHEET

Effective Date : 04/06/04      Note :  
 Supercedes : 03/30/04      N/A : Not Applicable  
 Date Printed : 04/17/12      N/E : Not Established

## 1 COMPANY and PRODUCT IDENTIFICATION

Company Identification : **Visual Magnetics Limited Partnership**  
 1 Emerson Street  
 Mendon, MA 01756

Emergency Telephone Nos. : **Visual Magnetics** (508) 473-4240

Product Information : **Visual Magnetics** (508) 473-4240

Product : VM-InvisiLock®-30HE or VM-InvisiLock®-40HE High Energy Flexible Magnets  
 Magnetic strength of at least 1.0 MGO<sub>e</sub> but under 1.6 MGO<sub>e</sub>.

Chemical Name : Synthetic Rubber Bonded Ferrite Powder

Synonyms : Not Applicable

CAS Number : Not Applicable

## 2 COMPOSITION/INFORMATION on COMPONENTS

Component	Percent by Weight		CAS Numbe	ACGIH**	OSHA**	OTHERS
	Minimum	Maximum		TLV-TWA	PEL-TWA	
Ferrite Powder	88	92				
Polymer Binder	7	11				
Carbon Tetrachloride	<0.75 ppm		56-23-5	5 ppm (TWA) 10 ppm (STEL)	10 ppm (TWA) 200 ppm (MAX - 5 min)	2 ppm
Chloroform	<0.05 ppm		67-66-3	10 ppm	50 ppm	2 ppm
Barium*	<0.5 mg/m <sup>3</sup> (<0.0001)		7440-39-3	0.5 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>

\* Note : Not all magnetic products <1.6 MGO<sub>e</sub> contain this material.

\*\* C-Ceiling D-Dust F-Fumes M-Mist m-Max N-NIOSH R-Respirable Dust ST/STEL-Short Term Exposure Limit T-Total Dust  
 t-Typical TS-Trade Secret V-Vapor

## 3 HAZARDS IDENTIFICATION

### Emergency Overview

Appearance : Dark Brown Solid

Odor : Odorless

Flammability : Ignited by extreme heat or open flame.

Environmental : Environmentally non-hazardous.

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## 3 HAZARDS IDENTIFICATION (Continued)

### Potential Health Effects

Eye Contact : Small pieces of material cut or chipped from stock may scratch eye surface and become a source of mechanical irritation.

Skin Contact : Non-hazardous in normal use. May cause skin irritation in some sensitive people.

Inhalation : Non-hazardous in normal use. Not a probable route of entry.

Ingestion : Non-hazardous in normal use. Not a probable route of entry.

Carcinogenicity : The following components are listed by IARC, NTP, OSHA, and ACGIH as (suspected) carcinogens :

Component	IARC	NTP	OSHA	ACGIH
Carbon Tetrachloride	X	X	(X)	X

**4 FIRST AID MEASURES**

Eye Contact : In case of contact, immediately flush eyes with copious amounts of water until inert material is dislodged and removed. Seek medical attention.

Skin Contact : If irritation occurs, remove material from skin and wash affected area with soap and water. If irritation persists, seek medical attention.

Inhalation : Non-hazardous. Not a probable route of entry.

Ingestion : Non-hazardous. In case of accidental ingestion, seek medical attention.

**5 FIRE FIGHTING MEASURES**

Flashpoint : >480°F

Fire and Explosion Hazards : LEL : N/A  
UEL : N/A

Solid material may burn at or above flashpoint temperature. Material may emit acrid toxic fumes and/or smoke.

Fire Fighting : Use self-contained breathing apparatus and protective clothing to avoid exposure to toxic fumes and intense heat.

Extinguishing Media : Water, All-Purpose (ABC) Dry Chemical, CO<sub>2</sub>, Foam

NFPA Rating : 

Health	Fire	Reactivity	Specific
1	1	0	

Hazard Rating : 0 - Insignificant, 1 - Slight, 2 - Moderate, 3 - High, 4 - Extreme Page : 2 of 5

**6 ACCIDENTAL RELEASE MEASURES**

Spill Clean Up : Recover spilled material by physical or mechanical means. Reuse, recycle or dispose of in accordance to local disposal regulations.

**7 HANDLING and STORAGE**

Handling : Use proper handling equipment and procedures that conform to OSHA regulations.

Storage : Material should be stored at ambient temperature, pressure, and humidity.

Electrostatic Accumulation Hazard : Use proper bonding and/or grounding procedures to discharge any accumulation of static electricity.

**8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

Exposure Controls : No additional ventilation beyond standard plant settings are required for processing the magnetic materials.

Personal Protection : Safety glasses with side shields are recommended for processes requiring the cutting of the magnetic materials. Cloth, rubber, or plastic gloves are recommended during handling to prevent possible skin irritation.

Workplace Exposure Guidelines

OSHA 29CFR1910.1000 : Observe the OSHA Permissible Exposure Limit of 5 mg/m<sup>3</sup> for dust and fumes.

**9 PHYSICAL and CHEMICAL PROPERTIES**

Appearance : Dark Brown Solid

Odor : Odorless

Density : 3.5 - 3.8 g/mL

Solubility in Water : Insoluble in water.

% Volatiles : N/A  
Melting Point : N/E  
Boiling Point : N/A

**10 STABILITY and REACTIVITY**

Stability : Stable at normal storing and processing conditions. Page : 3 of 5

**10 STABILITY and REACTIVITY (Continued)**

Conditions to Avoid : Extreme high temperatures.  
Decomposition : Decomposition products include CO, CO<sub>2</sub>, SO<sub>2</sub>, HCl, hydrocarbon oxidation products including organic acids, aldehydes, and alcohols.  
Polymerization : Polymerization will not occur.

**11 TOXICOLOGY INFORMATION**

Animal : Oral LD50 : N/E  
Dermal LD50 : N/E  
Inhalation LC50 : N/E

**12 ECOLOGICAL INFORMATION**

No specific ecological data is available for this product.

**13 DISPOSAL CONSIDERATIONS**

Waste Disposal : Landfill or incinerate in accordance to federal (national), state (provincial), and local regulations. Incineration requires scrubbing of combustion products to remove HCl and SO<sub>2</sub>.

**14 TRANSPORTATION INFORMATION**

Shipping Information : This product is not regulated by the Department of Transportation.

**15 REGULATORY INFORMATION**

US Federal Regulations : The components of this product are included in the US EPA Toxic Substance Control Act (TSCA) Chemical Substances Inventory and the Canadian Domestic Substance List.

CERCLA : In case of an accidental spill, this product is not required to be reported under the Comprehensive Environmental Response, Compensation, and Liability Act.

SARA Title III : Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard categories :

Non-Hazardous

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**15 REGULATORY INFORMATION (Continued)**

SARA Title III : (Continued) Section 313 reportable ingredients :

<u>Material</u>	<u>Percent by Weight</u>
Carbon Tetrachloride*	<0.75 ppm
Chloroform*	<0.05 ppm
Barium*	<0.5 mg/m <sup>3</sup> (0.0001)
Barium Ferrite**	<90

\* Note : Not all magnetic products at least 1.0 MGO<sub>e</sub> but less than 1.6 MGO<sub>e</sub> contain this material.

\*\* Note : For 1.4 MGO<sub>e</sub> products only.

**16 OTHER INFORMATION**

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