



157 RMX Way  
Petersburg WV 26847  
1-304-257-1193

MATERIAL SAFETY DATA SHEET  
COMPLIES WITH 29 CFR 1910.1200.  
OSHA HAZARD COMMUNICATION RULE

DATE OF LAST PRINT: 09-28-06

CHEMICAL IDENTITY

LABEL IDENTITY	<b>Samarium Cobalt Magnet</b>		
CHEMICAL NAME/SYNONYMS	<b>Samarium Cobalt Magnet</b>		
FORMULA	<b>SmCo</b>		
HAZARDOUS INGREDIENTS	%:	TLV:	OSHA/PEL:
<b>Samarium</b>	<b>30-40</b>	<b>not yet determined</b>	<b>not yet determined</b>
<b>Cobalt</b>	<b>60-80</b>	<b>0.1mg/m3</b>	<b>0.1mg/m3</b>
<b>Other rare earth's</b>	<b>0-5</b>	<b>not yet determined</b>	<b>not yet determined</b>

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR	<b>Light gray metal powder, no odor</b>
BOILING POINT	<b>Above 1900°C</b>
SPECIFIC GRAVITY (H2O=1)	<b>8.3/8.5</b>
VAPOR PRESSURE @ 20°	<b>No vapors</b>
% VOLATILE BY VOLUME (%)	<b>ND</b>
REACTIVITY IN WATER	<b>Unknown</b>
EVAPORATION RATE (H2O=1)	<b>ND</b>
SOLUBILITY IN WATER	<b>Negligible</b>
MELTING POINT	<b>Above 1050°C</b>

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	<b>NA</b>
AUTOIGNITION TEMPERATURE (°C)	<b>150-180°C</b>
FLAMMABLE LIMITS	<b>Unknown</b>
EXTINGUISHING MEDIA	<b>Low pressure Argon or Nitrogen/dry chemical</b>
SPECIAL FIRE FIGHTING PROCEDURES	<b>DO NOT USE WATER or HALON AGENTS.</b> <b>Isolate and contain burning material. Blanket with dry Argon or Nitrogen, or smother with dry chemical</b>
UNUSUAL FIRE & EXPLOSION HAZARDS	<b>When exposed to atmosphere or oxygen, powder will oxidize and burn/smolder. Rare earth metals burn vigorously in Halogen vapors above 392°F</b>

**SAMARIUM COBALT MAGNETS**  
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**HEALTH HAZARD INFORMATION**

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MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: **Unknown**

SIGNS AND SYMPTOMS OF OVEREXPOSURE (acute and chronic): **Unknown**

Chemicals Listed as Carcinogen or Potential Carcinogen	National Toxicity Program	Yes _____	NIOSH _____
		No <u>  x  </u>	RTECA <u>  x  </u>
I.A.R.C. Yes _____	OSHA Yes _____		
Monographs No <u>  x  </u>	No <u>  x  </u>		

EMERGENCY FIRST AID PROCEDURES:

INGESTION: **NA**

INHALATION: **NA**

SKIN CONTACT: **Brush off powder. Wash well with soap and water.**

EYE CONTACT: **Flush with running water for at least 15 minutes, including under eyelids.**

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**REACTIVITY DATA**

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STABILITY	<b>Unstable</b>
INCOMPATIBILITY (MATERIALS TO AVOID)	<b>Acids, oxygen, water, halogenated hydrocarbons, phosphorus, nitrogen, or strong oxidizing agents</b>
HAZARDOUS DECOMPOSITION PRODUCTS	<b>Unknown</b>
HAZARDOUS POLYMERIZATION	<b>Will Not Polymerize</b>
CONDITIONS TO AVOID	<b>Exposure of powder to atmosphere or oxygen</b>

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**SAFE HANDLING AND USE**

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

**Collect material from area and dispose of.**

WASTE DISPOSAL METHOD:

**Dispose of in accordance with federal, state and local regulations.**

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**SPECIAL PROTECTIVE INFORMATION**

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RESPIRATORY PROTECTION	<b>NIOSH approved (dust, fume, mist)</b>
VENTILATION	<b>General area</b>
LOCAL EXHAUST	<b>TLV requirements</b>
MECHANICAL (general)	<b>Unknown</b>
SPECIAL	<b>No data</b>
OTHER	<b>No data</b>
PROTECTIVE GLOVES	<b>Cloth</b>
EYE PROTECTION	<b>Safety glasses</b>
OTHER PROTECTIVE EQUIPMENT	<b>Eyewash station should be readily available</b>
WORK/HYGENIC PRACTICES	<b>Follow good industrial hygiene and house-keeping practices</b>

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**SPECIAL PRECAUTIONS**

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**PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:**

**Treat as Flammable Solid. Keep away from ignition sources and strong oxidizers.**  
**Store**  
**under inert atmosphere in non-combustible containers.**

TRANSPORTATION REQUIREMENTS	DOT CLASS:	<b>ND</b>
	UN NUMBER:	<b>ND</b>
	IMCO CLASS:	<b>ND</b>
	OTHER:	<b>ND</b>

PRECAUTIONARY LABELING **NONE**

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**NA= NOT APPLICABLE**

**ND= NO DATA FOUND**

**NR=NOT RECORDED**