

Material Safety Data Sheet

IRON HORSE™ Abrasives



SECTION I - GENERAL

Harsco Minerals
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Product Name: IRON HORSE™ Abrasives
CAS Number: 67711-92-6
Common Name: Iron Silicate Granules

Date: September 28, 2011

SECTION II - PRODUCT COMPOSITION

Componet	Normal Composition (WT%) Range	CAS Number	OSHA PEL (mg/m ³)
Iron Oxide [Fe ₂ O ₃]	48-67%	1309-37-1	10 mg/m ³ (Fume)
Silicon Dioxide [SiO ₂]	28-35%	7631-86-9	<u>80 mg/m³</u> %SiO ₂
Silicon Dioxide [SiO ₂ Crystalline "Free Silica"]			
Quartz	<0.1%	14808-60-7	<u>10 mg/m³</u> [Respirable Dust] %SiO ₂ +2
Cristobalite	ND	14464-46-1	<u>30 mg/m³</u> [Quartz Total Dust] %SiO ₂ +2
Tridymite	ND	15468-32-3	<u>80 mg/m³</u> [Respirable Dust] %SiO ₂
Aluminum Oxide [Al ₂ O ₃]	3-7%	1344-28-1	15 mg/m ³
Calcium Oxide [CaO]	0.3-6%	1305-78-8	5 mg/m ³
Magnesium Oxide [MgO]	0.5-2%	1309-48-4	15 mg/m ³ (Fume)
Sodium Oxide [Na ₂ O]	0.3-2%	1313-59-3	NE
Sulfur Trioxide [SO ₃]	0.5-2%	7446-11-9	NE
Titanium Dioxide [TiO ₂]	<1%	13463-67-7	15 mg/m ³
Potassium Oxide [K ₂ O]	<1%	12136-45-7	NE

ND = Not Detectable, NE - Not Established

SECTION III - PHYSICAL DATA

Physical Form:	Uniform composition, glassily solidified	Specific Gravity:	3.4 g/cc Typical
Boiling Temperature:	N/A	Water Solubility:	Negligible
Melting Temperature:	> 2500° F	Color:	Black Course Solid
Vapor Pressure/Density:	N/A	Odor:	None
Evaporation Rate:	N/A		

SECTION IV - FIRE/EXPLOSION/REACTIVITY DATA

Product is nonflammable, non-explosive and stable under normal conditions of use, storage and transportation.

Material Safety Data Sheet Cont.

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SECTION V - HEALTH HAZARD DATA

EXPOSURE LIMITS: Refer to Section II which highlights the Permissible Exposure Limit (PEL). This limit is published and enforced by OSHA as a legal standard. Most PELs are expressed as eight hour average airborne concentrations. The nuisance dust exposure standard should be followed - if exceeded, the appropriate respiratory protection equipment should be worn.

ACUTE & CHRONIC TOXICITY: Exposure to and contact from dust may irritate the respiratory system, eyes, or skin. Iron Silicate is not listed on the NTP, IARC, or OSHA list of carcinogens. If ingested it may cause nausea and vomiting.

FIRST AID:

1. Eye Contact - Immediately flush eyes thoroughly with water or an ophthalmic saline solution.*
2. Skin Contact - Wash skin with soap and water if irritation occurs.*
3. Inhalation - Remove affected person(s) to fresh air source.*
4. Oral Intake - Rinse mouth out with water.*

***Note:** If symptoms persist, contact a physician or other medical personnel.

IRON HORSE abrasives do not contain metal fabrication or finishing metal hazardous air pollutant (MFHAP) as per Subpart XXXXXX – National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories

SECTION VI - CONTROL MEASURES

RESPIRATOR PROTECTION: If airborne concentrations exceed recommended exposure limits, a suitable NIOSH/MSHA approved filter respirator should be worn. General ventilation or local exhaust is normally adequate to control dust emissions, if not, engineering controls should be utilized.

EYES: Safety glasses with side shields should be worn as minimum protection from impact. Dust goggles should be worn when excessively dusty conditions are present or anticipated.

GENERAL: The use of hard hats and hard toe shoes is recommended. Gloves may be worn to protect from abrasion as well as long sleeve shirts to minimize dermal exposure and potential skin irritation.

SECTION VII - SPILL, LEAK, AND DISPOSAL PROCEDURES

No special procedures required for clean-up, but it is recommended that this is done mechanically or through the use of hand tools. Wetting with water will reduce any airborne dust. Uncontaminated product does not exceed Toxicity Characteristic Leaching Procedure (TCLP) limits and may be disposed of as an inert material in an appropriate solid waste landfill according to applicable Federal, State and Local regulations.

DISCLAIMER

The opinions expressed herein are those of competent personnel within Harsco Corporation. Harsco believes that the information contained herein is current and accurate for the normal and intended use of this product as of the date of this Material Safety Data Sheet. Since the use of this information and of those opinions or the conditions of use of the product are not within the control of Harsco Corporation, it is the user's obligation to determine and observe the conditions of safe use and disposal of the product by their operations. Harsco Corporation will not be liable for any loss, damage or injury arising out of the use thereof.