

**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION**

<b>PRODUCT NAME:</b> Lightning® Black Ruby™ Magnetic Fingerprint Powder		<b>DATE:</b> August 01, 2011	
<b>PRODUCT NUMBER:</b> 1-0190 (1003972), 1-0191 (1003973)			
<b>TRADE NAME:</b> Black Emerald Magnetic Powder			
<b>GENERAL USE:</b> Latent Fingerprint Powder			
<b>CHEMICAL FAMILY:</b> Iron-based magnetic fingerprint powder.			
<b>PRODUCT DESCRIPTION:</b> Fine, dark gray powder with no odor.			
<b>MANUFACTURER:</b> Safariland LLC	<b>DATE PREPARED:</b> August 1, 2011	<b>SUPERSEDES:</b> September 16, 2008	
<b>ADDRESS (NUMBER, STREET, P.O. BOX):</b> 13386 International Parkway	<b>TELEPHONE NUMBER FOR INFORMATION / Customer Service:</b> 800-347-1200		
<b>(CITY, STATE AND ZIP CODE):</b> Jacksonville, FL. 32218	<b>COUNTRY:</b> USA	<b>CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBER:</b> <b>1-800-255-3924</b> (North America Toll Free) <b>01-813-248-0585</b> (International)	

**SECTION 2 - HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW**  
Irritant and potentially combustible dust; avoid creation of dust clouds.

**POTENTIAL HEALTH EFFECTS**

**INHALATION:**  
May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

**SKIN:**  
No adverse effects expected.

**EYES:**  
May cause irritation, redness and pain. Eye contact may cause conjunctivitis and deposition of iron particles can leave a "rust ring" or brownish stain on the cornea.

**INGESTION:**  
Extremely large oral dosages may produce gastrointestinal disturbances. An overdose of iron may cause vomiting, abdominal pain, bloody diarrhea, vomiting blood, lethargy, and shock. In severe cases, toxicity may progress and develop into an increase in acidity in the blood, bluish skin discoloration, fever, liver damage, and possibly death.

**CARCINOGENICITY:**  
 NTP? **NO**                                      IARC MONOGRAPHS? **NO**                                      OSHA REGULATED? **NO**  
 CALIFORNIA, Prop.65?                      **NO**

**SECTION 3 - HAZARDOUS INGREDIENTS**

Hazardous Components	% (by Weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 15)
<b>Iron Powder</b>	<b>80-90</b>	<b>7439-89-6</b>	<b>231-096-4</b>	<b>None</b>	<b>None</b>
<b>Pigment</b>	<b>10-15</b>	<b>NR</b>	<b>NR</b>	<b>None</b>	<b>None</b>

Notes:

**SECTION 4 - FIRST AID MEASURES**

**INHALATION:**  
Remove victim to fresh air. Get medical attention for any breathing difficulty.

**EYES:**  
Flush with water for 15 minutes occasionally lifting the eyelids.

**SKIN:**  
Wash with soap and water.

**INGESTION:**  
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

**SECTION 5 - FIRE FIGHTING MEASURES**

**GENERAL HAZARDS:**  
Moderate fire hazard in form of dust when exposed to heat or flame. Can react with water to liberate flammable hydrogen gas. Minimum ignition temperature iron dust cloud: 430C (805F). Ultrafine iron powder (ca. 5 microns) is pyrophoric and can ignite spontaneously in air.

**EXTINGUISHING MEDIA:**  
Use powdered graphite, powdered salt, or powdered limestone. DO NOT use water, Carbon Dioxide, or dry chemical.

**FIRE FIGHTING PROCEDURES:**  
Emergency responders should wear bunker gear and NIOSH or European EN-149 organic vapor respirators avoid exposure to decomposition products (29CFR 1910.156). Proper eye and skin protection should also be used. Fog nozzle and fine spray to prevent dusting.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**  
Ignition may produce dense black smoke. This product may contain residual oxygenated volatiles which can further react and generate heat. It may not be obvious that material is burning unless it is stirred and sparks are apparent.

**HAZARDOUS COMBUSTION PRODUCTS:**  
Combustion produces major amounts of Carbon Monoxide, Carbon Dioxide, Smoke, Soot and minor amounts of Nitrogen oxides and Sulfur oxides.

# MATERIAL SAFETY DATA SHEET

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## SECTION 6 - ACCIDENTAL RELEASE MEASURES

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

Vacuum, sweep, or spray with water and collect in a suitable container. Collect uncontaminated material for possible reuse.

## SECTION 7 - HANDLING AND STORAGE

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

Do not store above 120°F. Keep away from oxidizing agents.

## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

HAZARDOUS COMPONENTS	NIOSH				ACGIH		OSHA	
	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3	TLV/TWA ppm	TWA mg/m3	STEL ppm	PEL mg/m3
<b>Iron Powder</b>						<b>10</b>		<b>15</b>
<b>Pigment</b>		<b>NR</b>				<b>NR</b>		<b>NR</b>

### PERSONAL PROTECTION

**RESPIRATORY PROTECTION:**

Not required in unconfined or well ventilated areas. Use NIOSH or E.U. EN149 standard approved respirators for areas where general ventilation is not possible.

**PROTECTIVE GLOVES:**

Gloves are advised for repeated or prolonged contact.

**EYE PROTECTION:**

Safety glasses or splash goggles for prolonged use.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:**

Eye wash station in the event of eye contact with material.

**WORK / HYGIENIC PRACTICES:**

Employ good, industrial hygiene practices by using adequate ventilation and personal protection, as needed. Where dust cannot be controlled, personal respiratory protection should be employed.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE AND ODOR</b> Fine, dark gray powder with no odor.	<b>VAPOR PRESSURE</b> NE
<b>pH</b> NA	<b>SPECIFIC GRAVITY (WATER = 1)</b> 7.55
<b>MELTING POINT</b> NE	<b>SOLUBILITY IN WATER</b> Insoluble
<b>FLASH POINT</b> NE	<b>VISCOSITY</b> NA
<b>FLAMMABLE LIMITS</b> LEL: NE UEL: NE	<b>VAPOR DENSITY (AIR = 1)</b> NE
<b>AUTO-IGNITION TEMPERATURE</b> NE for mixture; 430°C (805°F) for iron powder.	<b>EVAPORATION RATE (WATER = 1)</b> NE

## SECTION 10 - STABILITY AND REACTIVITY

<b>STABILITY</b> STABLE X	<b>CONDITIONS TO AVOID:</b> Excessive heat, dusty conditions.
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**INCOMPATIBILITY (MATERIALS TO AVOID):**

Strong oxidizers such as chlorates, bromates, and nitrates; strong acids and bases.

**HAZARDOUS DECOMPOSITION OR BYPRODUCTS:**

Major amounts of Carbon Monoxide, Carbon Dioxide, Smoke, Soot and minor amounts of Nitrogen and Sulfur oxides.

**HAZARDOUS POLYMERIZATION:**

Will not occur.

**CONDITIONS TO AVOID:**

None related to polymerization.

## SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Components	CAS # EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
<b>Iron Powder</b>	<b>7439-89-6</b> <b>231-096-4</b>	<b>NR</b>	<b>NR</b>
<b>Pigment</b>	<b>NR</b> <b>NR</b>	<b>NR</b>	<b>NR</b>

## SECTION 12 - ECOLOGICAL INFORMATION

No ecological information is available for this product. Given the nature of thiocyanates, it should be assumed that this product is harmful to aquatic life. Therefore, do not release this product into sewers or waterways.

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### SECTION 13 - DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:**  
 Dispose of product waste as well as containers in accordance with all local, state and federal regulations.

### SECTION 14 - TRANSPORT INFORMATION

<b>PROPER SHIPPING NAME:</b> Not regulated for transport.	
<b>DOT HAZARD CLASS / Pack Group:</b> Not regulated for transport.	<b>IATA HAZARD CLASS / Pack Group:</b> Not regulated.
<b>REFERENCE:</b> 49 CFR	<b>IMDG HAZARD CLASS:</b> Not regulated.
<b>UN / NA IDENTIFICATION NUMBER:</b> None	<b>RID/ADR Dangerous Goods Code:</b> Not regulated.
<b>LABEL:</b> None	<b>UN TDG Class / Pack Group:</b> Not regulated.
<b>HAZARD SYMBOLS:</b> NONE	<b>Hazard Identification Number (HIN):</b> None

Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

### SECTION 15 - REGULATORY INFORMATION

<b>TSCA (USA - Toxic Substance Control Act):</b>	<b>No</b>
<b>SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):</b>	<b>No</b>
<b>Acute Health:</b> Yes	<b>Chronic Health:</b> Yes
<b>Fire:</b> NO	<b>Sudden Release of Pressure:</b> NO
<b>Reactive:</b> NO	
<b>313 REPORTABLE INGREDIENTS:</b>	<b>No</b>
<b>CERCLA (USA - Comprehensive Response Compensation and Liability Act):</b>	<b>Not listed.</b>
<b>California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:</b>	<b>Not listed.</b>
<b>CPR (Canadian Controlled Products Regulations):</b>	<b>Not listed.</b>
<b>IDL (Canadian Ingredient Disclosure List):</b>	<b>Listed.</b>
<b>DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List):</b>	<b>Components listed on DSL.</b>
<b>EINECS (European Inventory of Existing Commercial Chemical Substances):</b>	<b>Referenced.</b>
<b>WGK Water Quality Index:</b>	<b>2</b>
<b>RISK PHRASES:</b>	<b>SYMBOL(S) REQUIRED FOR EU LABEL</b>
<b>None</b>	<b>None</b>
<b>None</b>	<b>None</b>

### SECTION 16 - OTHER INFORMATION

**Legend:** NA = Not Applicable, NE = Not Established, ND = Not Determined, NR = Not Reported.

<b>HMIS HAZARD RATINGS</b>	<b>HEALTH:</b> 2 <b>FLAMMABILITY:</b> 1 <b>PHYSICAL HAZARD:</b> 0 <b>PERSONAL PROTECTIVE EQUIPMENT:</b> E	0 = INSIGNIFICANT 1 = SLIGHT 2 = MODERATE 3 = HIGH 4 = EXTREME
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**REVISION SUMMARY:**  
 Revised to E.U. protocols 8/1/2011 supersedes 9/16/2008 issue. JTV.

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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.