



MANUFACTURERS OF CERAMIC COLORS

**Material Safety Data Sheet**

Product Number: 6226

Date Prepared: May 2003

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**SECTION 1: Manufacturer Identification**

Mason Color Works, Inc.  
250 East 2nd Street/P.O. Box 76  
East Liverpool, OH 43920-5076

Phone: (330) 385-4400

Fax: (330) 385-4488

HMIS Classification:

Health	2*
Flammability	0
Reactivity	0
Personal Protection	See Section 6

\*Indicates possible chronic health effects.

**SECTION 2: Identification of Product**

Chemical Family: Inorganic  
Product Names: Dark Leaf Green 6226  
Chemical Abstract Number(CAS) 68197-49-5, 1308-31-2, 133258-7  
Chemical Name: Cobalt Chromite - Spinel  
Chemical Formula:  $\text{CoCr}_2\text{O}_4$

**SECTION 3 & 4: Hazardous ingredients Identity/Information and Overexposure Symptoms**

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
<b>Alumina Oxide (<math>\text{Al}_2\text{O}_3</math>)</b>	10 mg/m <sup>3</sup> (total)	15 mg/m <sup>3</sup> (total)	N/A
Cas # 1344-28-1		5 mg/m <sup>3</sup> (respirable)	

ACGIH: The value for particulate matter containing no asbestos and 1 % crystalline silica.

SYMPTOMS OF OVEREXPOSURE:

**Inhalation:** Acute may cause coughing and shortness of breath. Chronic may adversely effect breathing capacity.

**Eye Contact:** Direct contact may cause irritation.

**Skin contact:** May cause abrasions.

**Ingestion:** May cause irritation.

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
<b>Chrome Oxide (<math>\text{Cr}_2\text{O}_3</math>)</b>	0.5 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>
Cas # 1313-13-2			

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of carcinogenicity in humans/animals.

SYMPTOMS OF OVEREXPOSURE:

**Inhalation:** Repeated prolonged exposure to trivalent compounds may cause delayed effects involving the respiratory system.

**Eye Contact:** Mechanical irritation to the eye may occur such as watering, reddening do to exposure to fines.

**Skin Contact:** Expected to be non irritating.

**Ingestion:** Considered to be non-irritating, non-toxic if swallowed.

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
<b>Cobalt Oxide (Co<sub>3</sub>O<sub>4</sub>)</b>	0.02 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>	N/A
Cas # 1396-06-1			

ACGIH: Animal carcinogen: Agent is carcinogenic in experimental animals at dose levels, by route(s) of administration at site, or histologic type, or by mechanism considered relevant to workers exposure. Available epidemiologic studies do not confirm an increased risk of cancer in humans except under common levels of exposure.

SYMPTOMS OF OVEREXPOSURE:

**Inhalation:** Prolonged inhalation of dust or metal dust, and fume or mist containing cobalt may cause serious respiratory illness. May cause an irritation of respiratory organs of sensitive persons resulting in obstruction of airways with shortness of breath.

**Eye Contact:** May cause serious eye irritation.

**Skin Contact:** Prolonged exposure may produce irritation

**Ingestion:** Large amounts may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea.

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
<b>Iron Oxide (Fe<sub>2</sub>O<sub>3</sub>)</b>	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>
Cas # 1309-37-1			

ACGIH: Not classifiable as a human carcinogen: Inadequate data on which to classify the agent in terms of its carcinogenicity in humans/animals. The value is for a particulate matter containing no asbestos and 1% crystalline silica.

SYMPTOMS OF OVEREXPOSURE:

**Inhalation:** Repeated and prolonged exposure may cause beginnings Pneumoconiosis called Siderosis.

**Eye Contact:** May cause irritation.

**Skin Contact:** May cause mechanical skin irritation.

**Ingestion:** Expected to be non-toxic.

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
<b>Manganese Compound (Mn)</b>	0.2 mg/mg <sup>3</sup>	5 mg/mg <sup>3</sup>	1.0 mg/mg <sup>3</sup> 3.0 mg/mg <sup>3</sup>
Cas # 7349-96-5			

SYMPTOMS OF OVEREXPOSURE:

**Inhalation:** Elemental Manganese fume and dust, when in high concentrations, may adversely affect the central nervous system with symptoms including languor, sleepiness, weakness, emotional disturbances, spastic gait, mask-like facial expressions and paralysis.

**Eye Contact:** May cause irritation, if persists call doctor.

**Skin Contact:** May cause abrasions.

**Ingestion:** May cause irritation.

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
<b>Zinc Oxide (ZnO)</b>	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> (total) 5 mg/m <sup>3</sup> (respirable)	5 mg/m <sup>3</sup>
Cas # 1314-13-2			

SYMPTOMS OF OVEREXPOSURE:

**Inhalation:** High levels of dust may result in tightness of chest, metallic taste, cough, dizziness, fever, chills, headache, nausea, and dry throat. Chronic exposure may produce symptoms known as metal fume fever or "zinc shakes", an acute, self-limiting condition without recognized complications. Symptoms of metal fume fever include: chills, fever, muscular pain, nausea and vomiting. May aggravate respiratory conditions.

**Eye Contact:** May cause irritation.

**Skin Contact:** May cause irritation.

**Ingestion:** May cause irritation to the gastro-intestinal tract.

**SECTION 5: Emergency and First Aid Procedures**

**Eye:** flush thoroughly with water for 15 minutes.  
**Skin:** remove contaminated clothing, wash thoroughly with soap and water.  
**Inhalation:** remove to fresh air, may give oxygen if needed.  
**Ingestion:** give large amounts of water to induce vomiting, only in conscious persons.

**IF THESE FIRST AID MEASURES FAIL, CONSULT A PHYSICIAN**

Principal Routes of Entry:

**Inhalation:** Dust from this product may cause irritation of the respiratory system. Overexposure may cause lung damage.  
**Ingestion:** Large amounts may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea.  
**Skin & Eye:** Nuisance dust, prolonged or repeated may cause irritation.

**SECTION 6: Special Protection Information**

**Respiratory Protection:** Use only NIOSHA/OSHA approved respiratory protection with adequate ventilation; avoid breathing dust. Do not exceed Occupational Exposure Limit. Wash thoroughly after handling. No food or beverage should be consumed in work area.  
**Personal Protective Equip:** Wear appropriate gloves and goggles to avoid skin and eye contact. Safety showers and eye stations must be present in work stations.  
**Ventilation:** Use local exhaust or mechanical such as a dust collector to maintain dust levels below Occupational Exposure Limits.

**SECTION 7: Physical and Chemical Characteristics**

Boiling Point: N/A	Odor: Odorless
Solubility in water: trace	Specific Gravity (water=1): N/A
Vapor Pressure (mmHg): N/A	Evaporation rate: None
Vapor Density (air=1): N/A	% Volatile by volume: None
Appearance:	

**SECTION 8: Reactivity Data**

**Stability:** Stable  
**Hazardous Polymerization:** will not occur  
**Incompatibility:** None  
**Hazard Decomposition of product:** N/A

**SECTION 9: Fire and Explosive Data**

**Flash point:** N/A Flammable Limits:  
**Unusual Fire and Explosion Hazard:** None expected.  
**Extinguishing Media:** Carbon Dioxide, dry chemical or water  
**Special Fire Fighting Procedures:** Wear self contained breathing apparatus when large quantities involved.

**SECTION 10: Spill or Leak Procedures**

Contain spillage and scoop or vacuum. Avoid making dust, put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.

*This product is a blend of various metal oxides, salts and some compounds which are interfused by high calcinations to form the finished product. Section 3, Hazardous ingredients Identity/Information, and Section 4, Symptoms of Overexposure, pertain to individual components. Section 5 through Section 10 are in reference to the finished product.*

\*\*\*\*\* Attention all Retailers of Mason Stains \*\*\*\*\*

***ALL retailers of this product are REQUIRED by law to supply their customers with a copy of material safety data sheet with initial purchase.***

**\*\*\*SARA 313**

This product contains certain oxides and compounds which are subject to reporting requirements of Superfund Amendment and Reauthorization Act ( **SARA**) of 1986, Section 313 of the Emergency Planning and Community Right to Know Act and of 40 CRF, Part 372.

**The information contained in this MSDS must be provided to every employee who is exposed to this product in any way. We recommend the user reads and understands the contents herein before using this material.**

**PLEASE KEEP ON FILE FOR FUTURE REFERENCE. DO NOT THROW AWAY! MSDS'S ARE REQUIRED FOR FIRST SHIPMENT, AND WILL BE SENT AGAIN WHEN REVISED UPON YOUR NEXT ORDER OF PRODUCT OR BY REQUEST.**

**Disclaimer**