



MANUFACTURERS OF CERAMIC COLORS

Material Safety Data Sheet

Date Prepared: May 2003
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Product Number: 6386

SECTION 1: Manufacturer Identification

Mason Color Works, Inc.
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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: Navy Blue 6386
Chemical Abstract Number(CAS) 68412-74-8, 68186-97-0
Chemical Name: Cobalt Zinc Silicate - Phenacite + Iron Cobalt Chromite - Spinel
Chemical Formula: (Co,Zn)₂O₄ + (Co,Fe)Cr₂O₄

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

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Chrome Oxide (Cr2O3)	0.5 mg/m ³	0.5 mg/m ³	0.5 mg/m ³

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
Cobalt Oxide (Co₃O₄)	0.02 mg/m ³	0.5 mg/m ³	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 epidemiologis 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
Iron Oxide (Fe₂O₃)	5 mg/m ³	10 mg/m ³	5 mg/m ³
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 Sideordsis.

Eye Contact: May cause irritation.

Skin Contact: May cause mechanical skin irritation.

Ingestion: Expected to be non-toxic.

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Nickel Oxide (NiO)	0.2 mg/m ³	1 mg/m ³	0.015 mg/m ³
Cas # 7440-02-0			

ACGIH: Inhalable fraction, the concentration of inhalable particulate for application of this TLV is to be determined from the fraction passing a size-selector with characteristics defined in (A1). (A1) - Confirmed human carcinogen: Agent is carcinogenic to humans based on epidemiologic studies of, or convincing clinical evidence, in exposed humans. (Ca) Carcinogen.

SYMPTOMS OF OVEREXPOSURE:

Inhalation: Primary enters through inhalation of dust.

Eye Contact: May cause irritation in eyes and mucous membranes.

Skin contact: may irritate skin, can cause "Nickel Itch" in sensitive persons.

Ingestion: Low order of acute toxicity. May cause gastro-intestinal disorders.

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Silica, Crystalline (SiO₂)	0.1 mg/m ³	10 mg/m ³	0.05 mg/m ³
Cas # 14808-60-7			

SiO₂ + 2

SYMPTOMS OF OVEREXPOSURE:

Inhalation:

a) Prolonged exposure to respirable crystalline silica (quartz) can cause Silicosis, a fibrosis (scarring) of the lungs. Silicosis may be progressive; it may lead to disability and death. Silicosis increases risk of Tuberculosis.

b) Inhaled from occupational sources is classified as carcinogenic to humans. (cancer)

c) There is evidence that exposure to respirable crystalline silica or that the disease Silicosis is associated with increased incidence of Sceroderma, an auto-immune disorder manifested by fibrosis (scarring) of the skin and internal organs.

d) Thjere are several studies suggesting that exposure to respirable silica or that the disease Silicosis is associated with the increased incidence of kidney disorders. (Nephrotoxicity)

Eye Contact: May cause abrasions of the cornea.

Skin Contact: Not applicable

Ingestion: Not applicable

	ACGIH-TLVs	OSHA PELs	NOISHA RELs
Zinc Oxide (ZnO)	10 mg/m ³	10 mg/m ³ (total) 5 mg/m ³ (respirable)	5 mg/m ³
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

Solubility in water: trace

Vapor Pressure (mmHg): N/A

Vapor Density (air=1): N/A

Appearance:

Odor: Odorless

Specific Gravity (water=1): N/A

Evaporation rate: None

% Volatile by volume: None

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 CFR, 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