Material Safety Data Sheet  

Product Number: 6591-1

Section 1: Manufacturer Identification

Mason Color Works, Inc.  
Phone: (330) 385-4400

250 East 2nd Street/P.O. Box 76  
Fax: (330) 385-4488

East Liverpool, OH 43920-5076

Section 2: Identification of Product

Chemical Family: Inorganic

Product Names: Gun-Metal Grey 6591

Chemical Abstract Number (CAS): 68186-89-0

Chemical Name: Cobalt Nickel Grey - Periclase

Chemical Formula: (Co,Ni)O

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

<table>
<thead>
<tr>
<th></th>
<th>ACGIH-TLVs</th>
<th>OSHA PELs</th>
<th>NOISHA RELs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cobalt Oxide</strong> (Co$_3$O$_4$)</td>
<td>0.02 mg/m$^3$</td>
<td>0.5 mg/m$^3$</td>
<td>N/A</td>
</tr>
<tr>
<td>Cas # 1396-06-1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 epidemiological 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.

<table>
<thead>
<tr>
<th></th>
<th>ACGIH-TLVs</th>
<th>OSHA PELs</th>
<th>NOISHA RELs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nickel Oxide</strong> (NiO)</td>
<td>0.2 mg/m$^3$</td>
<td>1 mg/m$^3$</td>
<td>0.015 mg/m$^3$</td>
</tr>
<tr>
<td>Cas # 7440-02-0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th></th>
<th>ACGIH-TLVs</th>
<th>OSHA PELs</th>
<th>NOISHA RELs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Silica, Crystalline</strong> (SiO$_2$)</td>
<td>0.1 mg/m$^3$</td>
<td>10 mg/m$^3$</td>
<td>0.05 mg/m$^3$</td>
</tr>
<tr>
<td>Cas # 14808-60-7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Silica, Crystalline cont’d

Symptoms of overexposure:

**Inhalation:**
- a) associated with increased incidence of Scleroderma, an auto-immune disorder manifested by
  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
  fibrosis (scarring) of the skin and internal organs.
- d) There 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.

<table>
<thead>
<tr>
<th>Zirconium Oxide (ZnO)</th>
<th>10 mg/m³ (total)</th>
<th>15 mg/m³ (total)</th>
<th>5 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cas #: 1314-13-2</td>
<td>5 mg/m³ (respirable)</td>
<td>5 mg/m³ (respirable)</td>
<td>15 min. C</td>
</tr>
</tbody>
</table>

Symptoms of overexposure:

**Inhalation:** Acute inhalation to respirable dust which contains radioactive uranium, thorium and
radium may cause lung cancer.

**Eye Contact:** May cause irritation with discomfort, tearing or blurring of vision.

**Skin Contact:** Not applicable.

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 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 Limits.
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: grey powder

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: None
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 calcination to form the finished product. Section III, Hazardous Ingredients Identity/Information, and Section IV, Symptoms of Overexposure, pertain to individual components. Section V through Section X 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 this 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 Material Safety Data Sheet 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! MATERIAL SAFETY DATA SHEETS ARE REQUIRED FOR FIRST SHIPMENT, AND WILL BE SENT AGAIN WHEN REVISED UPON YOUR NEXT ORDER OF PRODUCT OR BY REQUEST.
DISCLAIMER

Mason Color Works, Inc. believes the information contained in this material safety data sheet is believed to be accurate and reliable as of the date of publication or revision but makes no warranty that it is. This information provided should be made available as required by the Federal OSHA Hazard Communication Standard 1910.1200 to ANYONE who handles, uses, stores, transports or will otherwise be exposed to this product. Mason Color Works, Inc. accepts no responsibility for the health or safety of any individual who misuses this product by not complying with manufacturer's instructions contained herein or additional/other measures that may be required under particular conditions.

Last issued: 11/97
Updated: 3/2000