1.1 Product identifier

Product name: ZINC IRON CHROMITE BROWN SPINEL

Zinc Iron Chromite Brown Spinel, an inorganic pigment, is a reaction product of high temperature calcination in which Zinc (II) Oxide, Iron (II) Oxide, Iron (III) Oxide, and Chromium (III) Oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of spinel. Its composition may include any one or a combination of the modifiers Al2O3, NiO, PbO, Sb2O5, SiO2, SnO2, or TiO2.

Product number: 6121 SATURN ORANGE

EC no.: 269-050-0
CAS no.: 68186-88-9
Index no.: C.I. 77503

1.4 Supplier's details

Name: Mason Color Works Inc.
Address: 250 East Second Street
East Liverpool, Ohio 43920
USA
Telephone: 330 385 4400
Fax: 330 385 4488

SECTION 2: Hazard identification

Classification of the substance or mixture

GHS classification in accordance with OSHA (29 CFR 1910.1200)
Not a hazardous substance or mixture.

GHS label elements, including precautionary statements
Not a hazardous substance or mixture.

Other hazards which do not result in classification
Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

6121 ZINC IRON CHROMITE BROWN SPINEL C.I. Pigment Brown 33 100%

EC no.: 269-050-0
CAS no.: 68186-88-9
Index no.: C.I. 77503
Formula: [(Zn,Fe)(Fe,Cr)2O4

SECTION 4: First-aid measures

• Contact with skin: Wash with plenty of water and soap.
• Contact with eyes: Wash immediately with water for at least 10 minutes.
• Swallowing: Induce vomiting. SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet. A suspension of activated charcoal in water, or liquid paraffin may be administered.
• Inhalation: Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION.
SECTION 5: Fire-fighting measures

- **Recommended extinguishers**: Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.
- **Extinguishers not to be used**: None in particular.
- **Risks arising from combustion**: Avoid inhaling the fumes.
- **Protective equipment**: Use protection for the respiratory tract.

SECTION 6: Accidental release measures

- **Measures for personal safety**: Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection.
- **Environmental measures**: Keep away from drains, surface- and ground-water and soil. Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.
- **Cleaning methods**: Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.

SECTION 7: Handling and storage

- **Handling precautions**: Wear suitable gloves, glasses and face protection. Avoid contact and inhalation of the vapours/powders. Do not eat or drink while working.
- **Incompatible materials**: None in particular.
- **Storage conditions**: Always keep the containers tightly closed.
- **Instructions as regards storage premises**: Adequately ventilated premises.

SECTION 8: Exposure controls / personal protection

- **Precautionary measures**: Give adequate ventilation to the premises where the product is stored and/or handled.
- **Respiratory protection**: Use suitable respiratory protection.
- **Protection for hands**: Not needed for normal use.
- **Eye protection**: Not needed for normal use.
- **Protection for skin**: No special precaution must be adopted for normal use.

<table>
<thead>
<tr>
<th></th>
<th>ACGIH-TLVs</th>
<th>OSHA PELs</th>
<th>NOISHA RELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium (III) Compounds (as Cr)</td>
<td>0.5 mg/m³</td>
<td>0.5 mg/m³</td>
<td>0.5 mg/m³</td>
</tr>
<tr>
<td>Iron Oxide Fume</td>
<td>5 mg/m³</td>
<td>10 mg/m³</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>Zinc oxide (as Zn) (Total Dust)</td>
<td>10 mg/m³</td>
<td>10 mg/m³ (total)</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

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<td>10 mg/m³</td>
<td>10 mg/m³ (total)</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/form</td>
<td>brown/powder</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td>6.8</td>
</tr>
<tr>
<td>pH</td>
<td>6.4</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>&gt;1000°C</td>
</tr>
<tr>
<td>Initial boiling point</td>
<td>NA</td>
</tr>
<tr>
<td>Boiling range</td>
<td>NA</td>
</tr>
<tr>
<td>Flash point</td>
<td>NA</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>NA</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>none</td>
</tr>
<tr>
<td>Upper/lower flammability</td>
<td>NA</td>
</tr>
<tr>
<td>limits</td>
<td>NA</td>
</tr>
<tr>
<td>Upper/lower explosive limits</td>
<td>NA</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>NA</td>
</tr>
<tr>
<td>Vapor density</td>
<td>NA</td>
</tr>
<tr>
<td>Relative density</td>
<td>NA</td>
</tr>
<tr>
<td>Solubility (es)</td>
<td>insoluble</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>NA</td>
</tr>
<tr>
<td>n-octanol/water</td>
<td>NA</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>NA</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>NA</td>
</tr>
<tr>
<td>Viscosity</td>
<td>NA</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>none</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>none</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and reactivity

Chemical stability   STABLE
Possibility of hazardous reactions   WILL NOT OCCUR
Incompatible materials   NONE
Hazardous decomposition products   N/A

SECTION 11: Toxicological information

ORAL   LD50 (male and female rats) > 2000 mg/kg bw
INHALATION   LC50 (rats; 4 hours) > 5.06 mg/L air (actual concentration)
SKIN   NON IRRITATING TO THE SKIN
NON IRRITATING TO THE EYES

THIS PIGMENT IS NOT LISTED IN THE NATIONAL TOXICOLOGY PROGRAM (NTP) REPORT ON CARCINOGENS.
IT IS NOT LISTED AS A POTENTIAL CARCINOGEN IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) MONOGRAPHS.
IT IS NOT FOUND TO BE A CARCINOGEN BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

SECTION 12: Ecological information

ECOTOXICITY   NO DATA
DEGRADABILITY   NO DATA
MOBILITY   NO DATA
BIOACCUMULATIVE   NO DATA

SECTION 13: Disposal considerations

Disposal of the product   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.

Disposal of contaminated packaging   Dispose of as unused product.

Waste treatment   MUST BE PROCESSED THROUGH IN-HOUSE TREATMENT

Sewage disposal   AVOID CITY DRAINS

SECTION 14: Transport information

14.1 UN Number   None
14.2 UN Proper Shipping Name   None
14.3 Transport hazard class(es)   None
14.4 Packing group   None
14.5 Environmental hazards   None
14.6 Special precautions for user   None
14.7 Transport in bulk according to Annex II of
MARPOL 73/78 and the IBC Code   None
SECTION 15: Regulatory information

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 SDS 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! SDS'S ARE REQUIRED FOR FIRST SHIPMENT, AND WILL BE SENT AGAIN WHEN REVISED UPON YOUR NEXT ORDER OF PRODUCT OR BY REQUEST.

Disclaimer

SECTION 16: REFERENCE INFORMATION

CPMA CLASSIFICATION AND CHEMICAL DESCRIPTIONS OF THE COMPLEX INORGANIC COLOR PIGMENTS
Fourth Edition - January 2013 Update

https://www.osha.gov/index.html

http://chem.sis.nlm.nih.gov/chemidplus

http://monographs.iarc.fr/ENG/Classification/index.php