COBALT ZINC ALUMINATE BLUE SPINEL

**Hazard Identification**

**Signal Word:** WARNING

GHS classification in accordance with OSHA (29 CFR 1910.1200)

- **H303:** May be harmful if swallowed
- **H313:** May be harmful in contact with skin
- **H317:** May cause an allergic skin reaction
- **H333:** May be harmful if inhaled
- **H335:** May cause respiratory irritation

**Not a hazardous substance**

- **P261:** Avoid breathing dust.
- **P262:** Do not get in eyes, on skin.
- **P264:** Wash hands thoroughly after handling.

**Composition/information on ingredients**

- **COBALT ZINC ALUMINATE BLUE SPINEL**
  - EC no.: 269-049-5
  - CAS no.: 68186-87-8
  - Index no.: C.I. 77347
  - Formula: \((\text{Co},\text{Zn})\text{Al}_2\text{O}_4\)

**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.
- **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

<table>
<thead>
<tr>
<th>Cobalt, Metal, Dust &amp; Fume (as Co)</th>
<th>ACGIH-TLVs</th>
<th>OSHA PELs</th>
<th>NOISHA RELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.02 mg/m³</td>
<td>0.5 mg/m³</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>10 mg/m³ (total)</td>
<td>15 mg/m³ (total)</td>
<td>N/A</td>
<td></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>
<tr>
<td></td>
<td></td>
<td>5 mg/m³ (respirable)</td>
<td></td>
</tr>
</tbody>
</table>

- **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.

SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance/form</th>
<th>Blue/Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td>4.49</td>
</tr>
<tr>
<td>pH</td>
<td>6.6</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>&lt;1000 °C</td>
</tr>
<tr>
<td>Initial boiling point and 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 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(ies)</td>
<td>insoluble</td>
</tr>
<tr>
<td>Partition coefficient: 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 rats) > 10000 mg/kg

INHALATION
LC50 (rats; 4 hours) > >5.06 mg/L air

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
ND DATA

DEGRADABILITY
ND DATA

MOBILITY
ND DATA

BIOACCUMULATIVE
ND 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 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

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