

# Safety Data Sheet

DATE PREPARED 4/28/2015

UPDATED 1/12/2017

## K-4704 COBALT ALUMINATE BLUE SPINEL

HMIS Classification:

Health 2\*  
Flammability 0  
Reactivity 0  
Personal Protection See Section 8



MANUFACTURERS OF CERAMIC COLORS

### 1.1 Product identifier

**Product name** COBALT ALUMINATE BLUE SPINEL

Cobalt Aluminate Blue Spinel, an inorganic pigment, is a reaction product of high temperature calcination in which Cobalt (II) Oxide, and Aluminum (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 Li<sub>2</sub>O, MgO, SiO<sub>2</sub>, TiO<sub>2</sub>, or ZnO

**Product number** K-4704 COBALT ALUMINATE

**EC no.** 310-193-6

**CAS no.** 1345-16-0

**Index no.** C.I. 77346

### 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

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

Not a hazardous substance

P261: Avoid breathing dust.

P262: Do not get in eyes, on skin.

P264: Wash hands thoroughly after handling.



## SECTION 3: Composition/information on ingredients

K-4704 COBALT ALUMINATE BLUE SPINEL C.I. Pigment Blue 28 100%

**EC no.** 310-193-6

**CAS no.** 1345-16-0

**Index no.** C.I. 77346

**Formula** CoAl<sub>2</sub>O<sub>4</sub>

## 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:** SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet.  
A suspension of activated charcoal in water, or liquid paraffin may be administered.  
Ventilate the premises.
- Inhalation:** 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

|                                      | ACGIH-TLVs                    | OSHA PELs  | NOISHA RELS | % as metal | % as Oxide |
|--------------------------------------|-------------------------------|--|-------------|------------|------------|
| Cobalt, Metal, Dust & Fume (as Co)   | 0.02 mg/m <sup>3</sup>        | 0.5 mg/m <sup>3</sup>  | N/A         | 31.5       | 40.5       |
| Aluminum (as Al), Metal (Total Dust) | 10 mg/mg <sup>3</sup> (total) | 15 mg/m <sup>3</sup> (total)<br>5 mg/m <sup>3</sup> (respirable) | N/A         | 31.5       | 59.5       |

- 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

|   |             |
|---|-------------|
| Appearance/form                         | Blue/Powder |
| Odor                                    | None        |
| SPECIFIC GRAVITY                        | 4.26        |
| pH                                      | 6.6         |
| Melting point/freezing point            | >1000 C     |
| Initial boiling point and boiling range | NA          |
| Flash point                             | NA          |
| Evaporation rate                        | NA          |
| Flammability (solid, gas)               | none        |
| Upper/lower flammability limits         | NA          |
| Upper/lower explosive limits            | NA          |
| Vapor pressure                          | NA          |
| Vapor density                           | NA          |
| Relative density                        | NA          |
| Solubility(ies)                         | insoluble   |
| Partition coefficient: n-octanol/water  | NA          |
| Auto-ignition temperature               | NA          |
| Decomposition temperature               | NA          |
| Viscosity                               | NA          |
| Explosive properties                    | none        |
| Oxidizing properties                    | none        |

## 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                       | N/A                                   |
| 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<br>put in appropriate container for disposal. Waste disposal method in accordance with<br>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<br>MARPOL 73/78 and the IBC Code             | None |
| 14.8 Goods are not regulated for transport by International Air Transport Association (IATA) |      |

## 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 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>

*13th Report on Carcinogens* on October 2, 2014.

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

