



Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/21/2008

Reviewed on 11/21/2008

* **1 Product Identification**

- **Product Description** Glass enamel powder
- **Product ID#:** **BLUE CERAMIC GLAZE STAIN
14N360**
- **Product Use:** Glass enamel powder
- **Manufacturer/Supplier:**
Johnson Matthey Inc.
498 Acorn Lane
Downingtown, PA 19335
tel. 1 610 873-3200
fax. 1 610 873-3255
- **Information department:** Product Safety Department 1 (610) 873-3200 M-F 8am-5pm
- **Emergency information:** 1 856 384-7050

* **2 Composition/Data on components**

- **Chemical characterization:**
- **CAS No. Description**
68186-95-8 C.I. pigment blue 71 95-100%
- **Identification number(s)**
- **EINECS Number:** 269-057-9
- **Additional information:** CI Pigment Blue 71 is a Zirconium Vanadium Blue Spinel

* **3 Hazards identification**

- **Hazard description:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment:**
Harmful by inhalation.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 0
Reactivity = 0

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· **HMIS-ratings (scale 0 - 4)**

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HEALTH	2	Health = 2
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

4 First aid measures

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Remove contaminated clothing and wash skin with soap and water. Wash or clean clothing before reuse.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult doctor.

5 Fire fighting measures

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **Protective equipment:** Wear full firefighting gear and SCBA

6 Accidental release measures

· **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.

· **Measures for environmental protection:** Do not allow product to reach sewage system or any water course.

· **Measures for cleaning/collecting:**

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

7 Handling and storage

· **Handling:**

· **Information for safe handling:**

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

· **Information about protection against explosions and fires:** No special measures required.

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** Keep receptacle tightly sealed.

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8 Exposure controls and personal protection

· **Additional information about design of technical systems:**

The application of this product requires well exhausted firing kilns and efficient ventilation of working areas.

· **Components with limit values that require monitoring at the workplace:**

There is no PEL established for this mixture. Recommend monitoring based upon the components in the mixture.

· **Additional Occupational Exposure Limit Values for possible hazards during processing:**

771314-62-1 vanadium compounds, n.o.s. (as V2O5)

PEL	Short-term value: * C 0.5, ** C 0.1 mg/m ³ C- ceiling limit, * Respirable dust, ** Fumes
REL	Short-term value: *0.05 mg/m ³ * 15 min, total dust or fume

7440-67-7 zirconium

PEL	5 mg/m ³ compounds, as Zr
REL	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ compounds, as Zr (except Zirconium tetrachloride)
TLV	Short-term value: 10* ** mg/m ³ Long-term value: 5* ** mg/m ³ *elemental **compounds, as Zr

silicon compounds, n.o.s. (as SiO2)

PEL	15 mg/m ³ No PEL exists, PEL for Nuisance dust is suggested
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· **Additional information:** The lists that were valid during the creation were used as basis.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

· **Protection of hands:**

· **Material of gloves**

Nitrile rubber, NBR
Chemical resistant gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Eye protection:** Not required.

9 Physical and chemical properties

· **General Information**

Form:	Powder
Color:	Blue
Odor:	Odorless

· **Change in condition**

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

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· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Product is not flammable.
· Danger of explosion:	Product does not present an explosion hazard.
· Vapor pressure at 20°C (68°F):	0 hPa
· Density at 20°C (68°F):	4 g/cm ³
· Solubility in / Miscibility with Water:	Insoluble.
· pH-value:	Neutral
· Organic solvents:	0.0 %
· Water:	0.0 %
· Solids content:	100.0 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

68186-95-8 C.I. pigment blue 71

Oral	LD50	> 2000 mg/kg (rat)
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· **Primary irritant effect:**

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

12 Ecological information

- **General notes:** Generally not hazardous for water

13 Disposal considerations

· **Product:**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Remarks:** Not regulated
- **Land transport ADR/RID (cross-border):**
- **ADR/RID class:** -
- **Remarks:** Not regulated
- **Inland shipping ADN:**
- **Remarks:** Not regulated
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Remarks:** Not regulated
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **Remarks:** Not regulated

- **Transport/Additional information:** Not dangerous according to the above specifications.

15 Regulations

- **Sara**

- **Section 355 (extremely hazardous substances):**

Substance is not listed.

- **Section 313 (Specific toxic chemical listings):**

1314-62-1 | vanadium compounds, n.o.s. (as V2O5)

- **TSCA (Toxic Substances Control Act):**

Substance is not listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

1314-62-1 | vanadium compounds, n.o.s. (as V2O5)

- **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

- **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

- **Chemicals known to cause developmental toxicity:**

Substance is not listed.

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· **Canadian Ingredient disclosure list**

· **Limit 0,1%**

Substance is not listed.

· **Limit 1%**

Substance is not listed.

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **IARC (International Agency for Research on Cancer)**

1314-62-1 | vanadium compounds, n.o.s. (as V2O5)

2B

· **NTP (National Toxicology Program)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **MAK (German Maximum Workplace Concentration)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

· **Product related hazard informations:** The product has been marked in accordance with national laws.

· **Hazard symbols:**

Xn Harmful

· **Risk phrases:**

Harmful by inhalation.

· **Safety phrases:**

Do not breathe dust.

Avoid contact with eyes.

Wear suitable protective clothing and eye/face protection.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Contact:**

M. Musetti

EHS/Q Manager

· *** Data compared to the previous version altered.**