



**Material Safety Data Sheet**  
acc. to ISO/DIS 11014

Printing date 10/09/2008

Reviewed on 10/09/2008

**1 Product Identification**

- **Product Description** Pigment
- **Product ID#:** **S T R O N G      Y E L L O W      G L A Z E      S T A I N**  
**28CY4**
- **Product Use:** Pigment
- **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**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Hazardous components:**

CAS: 68476-25-5 EINECS: 270-666-7	feldspar minerals	Xn; R 48/20	1-5%
CAS: 68187-15-5 EINECS: 269-075-7	C.I. pigment yellow 159		75-100%

· **Main components:**

CAS: 68187-15-5 EINECS: 269-075-7	C.I. pigment yellow 159		75-100%
CAS: 68476-25-5 EINECS: 270-666-7	feldspar minerals	Xn; R 48/20	1-5%

· **Additional information:**

For the wording of the listed risk phrases refer to section 16.  
C.I.Pigment Yellow 159 is Zirconium Praseodymium Yellow Zircon

**3 Hazards identification**

· **Hazard description:**



Xn Harmful

· **Information pertaining to particular dangers for man and environment:**

Harmful by inhalation.  
Only for trade users / technical specialists

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· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = \*2

Fire = 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:** Not required.

· **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.

Provide suction extractors if dust is formed.

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- **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.

## \* 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:

#### 7440-67-7 zirconium

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

- **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.



Do not inhale gases / fumes / aerosols.

- **Protection of hands:**
- **Material of gloves**  
Nitrile rubber, NBR  
Chemical resistant gloves
- **Eye protection:** Not required.

## \* 9 Physical and chemical properties

### · General Information

<b>Form:</b>	Powder
<b>Color:</b>	Yellow
<b>Odor:</b>	Odorless

- **Change in condition**  
**Melting point/Melting range:** Undetermined.

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<b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Vapor pressure at 20°C (68°F):</b>	0 hPa
· <b>Density at 20°C (68°F):</b>	4 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with Water:</b>	Insoluble.
· <b>pH-value:</b>	Neutral
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	0.0 %
· <b>Solids content:</b>	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:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful

### **12 Ecological information**

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

### **13 Disposal considerations**

- **Product:**
- **Recommendation:** Smaller quantities can be disposed of with household waste.

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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):**  
None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**  
None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):**  
All ingredients are listed.
- **Proposition 65**
- **Chemicals known to cause cancer:**  
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for females:**  
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for males:**  
None of the ingredients is listed.
- **Chemicals known to cause developmental toxicity:**  
None of the ingredients is listed.

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· **Canadian Ingredient disclosure list**

· **Limit 0,1%**

None of the ingredients is listed.

· **Limit 1%**

None of the ingredients is listed.

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Product related hazard informations:**

Observe the general safety regulations when handling chemicals.  
The product has been marked in accordance with national laws.

· **Hazard symbols:**

Xn Harmful

· **Risk phrases:**

Harmful by inhalation.

· **Safety phrases:**

Do not breathe fumes / aerosol  
Wear suitable protective clothing and eye/face protection.

· **Special labeling of certain preparations:**

Only for trade users / technical specialists

**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.

· **Relevant R-phrases**

48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

· **Contact:**

M. Musetti  
EHS/Q Manager

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