



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 04/10/2015

Version 6

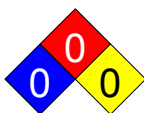
Reviewed on 04/10/2015

**1 Identification**

- **Product identifier** Coloured glaze
- **Trade name:**
- **Product ID#:** **UNLEADED ONGLAZE BROWN** **94R1005**
- **Product Use:**  
Coloured glaze  
Preparation of ceramic parts and coatings
- **Details of the supplier of the safety data sheet**
- **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 telephone number:** 1 856 384-7050

**2 Hazard(s) identification**

- **Classification of the substance or mixture**  
The product is not classified according to the Globally Harmonized System (GHS).
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
- **Information concerning particular hazards for human and environment:**  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Hazard description:**
- **American Hazard Description**  
Based upon the components the following hazards may exist:  
Target Organs - Lungs
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

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- **HMIS ratings (scale 0 - 4)**

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

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of frits and/or raw materials of natural origin and inorganic pigments in powder form

- **Hazardous components:**

CAS: 65997-18-4	frits, chemicals	75-100%
EINECS: 266-047-6		

- **Main components:**

CAS: 65997-18-4	frits, chemicals	75-100%
EINECS: 266-047-6		
CAS: 68186-88-9	zinc iron chromite brown spinel	10-<25%
EINECS: 269-050-0		
CAS: 24623-77-6	aluminum oxide hydroxide	0.5-<1%

- **SVHC -**

- **Additional information:**

For the wording of the listed risk phrases refer to section 16.

This product is partly or entirely the result of a melting, calcining or sintering process at high temperatures. It therefore does not necessarily exhibit the properties of the abovementioned metallic constituents. The mentioned metals are present in a complex matrix and are expressed as their oxides; it is however highly unlikely that these oxides are actually present in the product, unless explicitly specified.

### 4 First-aid measures

- **Description of 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.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## \* 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Wear full firefighting gear and SCBA

## \* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## \* 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Thorough dedusting.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of dust.  
Provide suction extractors if dust is formed.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **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.
- **Specific end use(s)** No further relevant information available.

## \* 8 Exposure controls/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.
- **Control parameters**
- **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.

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**65997-18-4 frits, chemicals**

PEL	Long-term value: 15 mg/m <sup>3</sup> recommended PEL for nuisance dust
TLV	Long-term value: 15 mg/m <sup>3</sup> recommended TLV for nuisance dust

CAS No.	Designation of material	%	Type	Value	Unit
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Additional Occupational Exposure Limit Values for possible hazards during processing:					
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**zinc compounds, n.o.s. (calculated as ZnO)**

PEL	Long-term value: 15* 5** 5*** mg/m <sup>3</sup> Dust only *total dust **respirable dust ***fume
REL	Short-term value: C 15* 10*** mg/m <sup>3</sup> Long-term value: 5**, 5*** mg/m <sup>3</sup> *15-min dust only, ** dust only, ***fume

**chromium (III) compounds, n.o.s. (as Cr2O3)**

PEL	Long-term value: 0.5 mg/m <sup>3</sup> as Cr, inorganic compound
REL	Long-term value: 0.5 mg/m <sup>3</sup> as Cr, inorganic compound
TLV	Long-term value: 0.5 mg/m <sup>3</sup> as Cr(III), inorganic compound

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

· **Breathing equipment:** Not required.

· **Protection of hands:**

· **Material of gloves**

Nitrile rubber, NBR

Chemical resistant gloves

· **Eye protection:** Not required.

## \* 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

**Form:** Powder

**Color:** Brown

· **Odor:** Odorless

· **pH-value:** Neutral

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Auto igniting:** Product is not selfigniting.

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· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
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· <b>Vapor pressure at 20 °C (68 °F):</b>	0 hPa
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· <b>Density:</b>	Not determined.
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· <b>Solubility in / Miscibility with Water:</b>	Insoluble.
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· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.

· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	0.0 %
<b>Solvent (USA):</b>	0.0 %

<b>Solids content:</b>	100.0 %
· <b>Other information</b>	No further relevant information available.

### **10 Stability and reactivity**

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### **11 Toxicological information**

- **Information on toxicological effects**
- **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 is not subject to classification according to internally approved calculation methods for preparations:  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- **Carcinogenic categories**

· <b>IARC (International Agency for Research on Cancer)</b>
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None of the ingredients is listed.
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· <b>NTP (National Toxicology Program)</b>
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None of the ingredients is listed.
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· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients is listed.

## \* 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
  - Water hazard class 2 (Self-assessment): hazardous for water
  - Do not allow product to reach ground water, water course or sewage system.
  - Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## \* 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
  - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## \* 14 Transport information

- |  |                 |
|--|-----------------|
| · <b>UN-Number</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Not regulated   |
| · <b>UN proper shipping name</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Not regulated   |
| · <b>Transport hazard class(es)</b>  |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   |                 |
| · <b>Class</b>   | Not regulated   |
| · <b>Packing group</b>   |                 |
| · <b>DOT, ADR, IMDG, IATA</b>  | Not regulated   |
| · <b>Environmental hazards:</b>  |                 |
| · <b>Marine pollutant:</b>   | No              |
| · <b>Special precautions for user</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable. |

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· <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.
· <b>DOT</b>	
· <b>Remarks:</b>	Not regulated
· <b>ADR</b>	
· <b>Remarks:</b>	Not regulated
· <b>ADN</b>	
· <b>Remarks:</b>	Not regulated
· <b>IMDG</b>	
· <b>Remarks:</b>	Not regulated
· <b>IATA</b>	
· <b>Remarks:</b>	Not regulated
· <b>UN "Model Regulation":</b>	-

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

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

None of the ingredients is listed.

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

68186-88-9	zinc iron chromite brown spinel	zinc compounds
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· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Warning: This product contains a chemical known to the State of California to cause cancer**

None of the ingredients is listed.

· **Warning: This product contains a chemical known to the State of California to cause female reproductive hazards.**

None of the ingredients is listed.

· **Warning: This product contains a chemical known to the State of California to cause male reproductive hazards**

None of the ingredients is listed.

· **Warning: This product contains a chemical known to the State of California to cause development toxicity**

None of the ingredients is listed.

· **Canadian Ingredient disclosure list**

· **Limit 0,1%**

None of the ingredients is listed.

· **Limit 1%**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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· **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.

· **National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.\* **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:**

J. Rose  
EHS Specialist

· **Date of preparation / last revision** 04/10/2015 / 5· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

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

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