1 Identification

- **Product identifier**: Coloured glaze
- **Trade name:**
- **Product ID#:** UNLEADED ONGLAZE WHITE 94T1000
- **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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Product ID#: **UNLEADED ONGLAZE WHITE**  94T1000

- HMIS ratings (scale 0 - 4)
  - Health = 0
  - Fire = 0
  - Reactivity = 0

- Health = 0
- Fire = 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

<table>
<thead>
<tr>
<th>Hazardous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 65997-18-4</td>
<td>EINECS: 266-047-6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Main components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 65997-18-4</td>
<td>EINECS: 266-047-6</td>
</tr>
<tr>
<td>CAS: 1306-38-3</td>
<td>EINECS: 215-150-4</td>
</tr>
<tr>
<td>CAS: 7778-18-9</td>
<td>EINECS: 231-900-3</td>
</tr>
</tbody>
</table>

- 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.
    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 storerrooms 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.
65997-18-4 frits, chemicals

- PEL: Long-term value: 15 mg/m³
- recommended PEL for nuisance dust
- TLV: Long-term value: 15 mg/m³
- recommended TLV for nuisance dust

**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.

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**9 Physical and chemical properties**

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

  - **General Information**

    - **Appearance:**

      - Form: Powder

      - Color: White

    - **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.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Density:** Not determined.

- **Solubility in / Miscibility with**

  - **Water:** Insoluble.

- **Viscosity:**

  - Dynamic: Not applicable.

  - Kinematic: Not applicable.

- **Solvent content:**

  - **Organic solvents:** 0.0 %

  - **Water:** 0.0 %

  - **Solvent (USA):** 0.0 %

- **Solids content:** 100.0 %
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
- 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
  - IARC (International Agency for Research on Cancer)
    None of the ingredients is listed.
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    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.
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

- UN-Number
  - DOT, ADR, ADN, IMDG, IATA: Not regulated

- UN proper shipping name
  - DOT, ADR, ADN, IMDG, IATA: Not regulated

- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA: Not regulated
  - Class: Not regulated

- Packing group
  - DOT, ADR, IMDG, IATA: Not regulated

- Environmental hazards:
  - Marine pollutant: No

- Special precautions for user
  - Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.

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

  - DOT
    - Remarks: Not regulated
  
  - ADR
    - Remarks: Not regulated

  - ADN
    - Remarks: Not regulated

  - IMDG
    - Remarks: Not regulated

  - IATA
    - Remarks: Not regulated

  - UN "Model Regulation": -

(Contd. on page 7)
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):
    None of the ingredients is listed.
  - 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.
- Cancerogenity categories
- EPA (Environmental Protection Agency)
  1306-38-3 cerium oxide
- 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 to 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.
Product ID#: **UNLEADED ONGLAZE WHITE**  

- **Contact:**  
  J. Rose  
  EHS Specialist

- **Date of preparation / last revision:** 04/10/2015 / 6

- **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.**