



Safety Data Sheet
acc. to OSHA HCS

Printing date 04/10/2015

Version 6

Reviewed on 04/10/2015

1 Identification

- **Product identifier** Glass enamel powder
- **Trade name:**
- **Product ID#:** **HONEYCOMB ORANGE ONGLAZE** **94H1003**
- **Product Use:**
Glass enamel powder
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:
Antimony, Titanium dioxide are cancer hazards

Target Organs - Lungs, Hair

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **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: 68186-90-3	chrome-antimony-titanium buff rutile	10-<25%
EINECS: 269-052-1		

- **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.

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- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **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**
Wear protective equipment. Keep unprotected persons away.
- **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 ³ recommended PEL for nuisance dust
TLV	Long-term value: 15 mg/m ³ 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:**1309-64-4 antimony compounds, n.o.s. (calculated as Sb2O3)**

PEL	Long-term value: 0.5 mg/m ³
REL	Long-term value: 0.5 mg/m ³ as Sb
TLV	Long-term value: 0.5 mg/m ³ as Sb; Production: L

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

PEL	Long-term value: 0.5 mg/m ³ as Cr
REL	Long-term value: 0.5 mg/m ³ as Cr; See Pocket Guide App. C
TLV	Long-term value: 0.5 mg/m ³ as Cr

titanium compounds, n.o.s. (calculated as TiO2)

PEL	Long-term value: 15* mg/m ³ *total dust
REL	See Pocket Guide App. A
TLV	Long-term value: 10 mg/m ³ withdrawn from NIC

· **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:	Orange
Odor:	Odorless

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· Odour threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not determined.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C (68 °F):	0 hPa
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Organic solvents:	0.0 %
Water:	0.0 %
Solvent (USA):	0.0 %
Solids content:	100.0 %
· Other information	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.

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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**

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

68186-90-3	chrome-antimony-titanium buff rutile	antimony compounds, titanium compounds
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- **NTP (National Toxicology Program)**

68186-90-3	chrome-antimony-titanium buff rutile	antimony compounds
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- **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.

- **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.

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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 · 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":	-

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):

68186-90-3	chrome-antimony-titanium buff rutile	antimony compounds, chromium 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

68186-90-3	chrome-antimony-titanium buff rutile	antimony compounds
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· **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.

· **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)

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VOC: Volatile Organic Compounds (USA, EU)

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

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