SECTION 1. IDENTIFICATION

Product name : 3124-2 Glaze Frit  50 Lb bag

Product code : RS_FP_400490

Manufacturer or supplier's details

Company name of supplier : Ferro Corporation

Address : 6060 Parkland Blvd. Suite 250
           Mayfield Heights OH 44124-4185

Telephone : (216) 875-5600

Disposal considerations : Dispose of wastes in an approved waste disposal facility.

Emergency telephone number

CHEMTREC In-Country : (800)424-9300

CHEMTREC Global Number : +(1)-703-527-3887(Call Collect)

Recommended use of the chemical and restrictions on use

Recommended use : Industrial use

Restrictions on use : Reserved for industrial and professional use.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Not a hazardous substance or mixture.

GHS Label element
Not a hazardous substance or mixture.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Chemical nature : glass/frit

Hazardous components
No hazardous ingredients

SECTION 4. FIRST AID MEASURES
General advice: Consult a physician.

If inhaled: Remove to fresh air. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person.

In case of skin contact: Wash off immediately with soap and plenty of water. If a person feels unwell or symptoms of skin irritation appear, consult a physician.

In case of eye contact: Rinse immediately with plenty of water and seek medical advice.

If swallowed: Do NOT induce vomiting. Rinse immediately with plenty of water and seek medical advice.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

Specific hazards during firefighting: Exposure to decomposition products may be a hazard to health. Do not allow run-off from fire fighting to enter drains or water courses. Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation. Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions: Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

Methods and materials for containment and cleaning up: Sweep up and shovel into suitable containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE
SAFETY DATA SHEET

Advice on safe handling: Do not get in eyes or mouth or on skin. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Do not use in areas without adequate ventilation. Keep away from heat and sources of ignition.

Conditions for safe storage: Keep in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSOAL PROTECTION

Components with workplace control parameters
Contains no substances with occupational exposure limit values.

Engineering measures: Apply technical measures to comply with the occupational exposure limits. Provide adequate ventilation.

Personal protective equipment
Respiratory protection: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection
  Material: Protective gloves

Eye protection: Safety glasses with side-shields
  Ensure that eyewash stations and safety showers are close to the workstation location.

Protective measures: Wear suitable protective equipment.
  When using do not eat, drink or smoke.

Hygiene measures: Remove contaminated clothing and protective equipment before entering eating areas.
  Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: granular

Colour: transparent

Odour: odourless

Odour Threshold: No data available

pH: Not applicable

Melting point/range: No data available

Boiling point/boiling range: No data available
Flash point : Not applicable
Evaporation rate : Not applicable
Burning rate : No data available
Upper explosion limit : No data available
Lower explosion limit : No data available
Vapour pressure : No data available
Relative vapour density : No data available
Relative density : No data available
Bulk density : No data available
Solubility(ies)
Water solubility : No data available
Solubility in other solvents : not determined
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : not determined
Thermal decomposition : No data available
Viscosity
Viscosity, dynamic : Not applicable
Viscosity, kinematic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Refractive index : Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No data available
Chemical stability : No data available
Possibility of hazardous reactions : No data available
Conditions to avoid : Incompatible materials
Incompatible materials : Incompatible with oxidizing agents.
Incompatible with strong acids and bases.

Hazardous decomposition products: Stable under normal conditions.

SECTION 11. TOXICODOLOGICAL INFORMATION

Information on likely routes of exposure
- Inhalation (dust/mist/fume)
- Inhalation (vapour)
- Skin
- Eye contact
- Ingestion

Acute toxicity
Not classified based on available information.

Skin corrosion/irritation
Not classified based on available information.

Serious eye damage/eye irritation
Not classified based on available information.

Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Not classified based on available information.
STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:
Ecotoxicology Assessment
Acute aquatic toxicity : This product has no known ecotoxicological effects.
Chronic aquatic toxicity : This product has no known ecotoxicological effects.

Persistence and degradability

Product:
Biodegradability : Remarks: No data available

Bioaccumulative potential

Product:
Bioaccumulation : Remarks: No data available

Mobility in soil

Product:
Distribution among environmental compartments : Remarks: No data available

Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : Dispose of wastes in an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG
Not regulated as a dangerous good
IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Pollution category : N/A
Ship type : N/A

National Regulations

49 CFR DOT
Not regulated as a hazardous material

SECTION 15. REGULATORY INFORMATION

TSCA list : TSCA 5a - Not relevant
TSCA_12b - Not relevant

SARA 311/312 Hazards : No SARA Hazards

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Massachusetts Right To Know
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know
frits, chemicals 65997-18-4

New Jersey Right To Know
frits, chemicals 65997-18-4

California Prop 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:
REACH : This mixture contains only ingredients which have been registered according to Regulation (EC) No. 1907/2006 (REACH).

CH INV : On the inventory, or in compliance with the inventory
TSCA : On TSCA Inventory
DSL : All components of this product are on the Canadian DSL.
SAFETY DATA SHEET

<table>
<thead>
<tr>
<th>1024690</th>
<th>3124-2 Glaze Frit</th>
<th>50 Lb bag</th>
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<tr>
<td>Product specification</td>
<td>RS_FP_400490</td>
<td>Revision Date</td>
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<tr>
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<td>Material number</td>
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</table>

AICS : On the inventory, or in compliance with the inventory

NZIoC : Not in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

Inventories
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA), CH INV (Switzerland), MY INV (Malaysia), TR INV (Turkey), TW INV (Taiwan)

SECTION 16. OTHER INFORMATION

Sources of key data used to compile the Safety Data Sheet : [1] Estudio de Evaluación de Riesgos de la Fritas Cerámicas, Universitat Jaume I, 2005

Revision Date : 10/08/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.