SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product name: PE FRIT MS Bonding G 3249-2 50LB BAG

Product code: RS_FP_600085

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: Manufacture of ceramic coatings and decorating preparations suited for firing, for glass and ceramics. Frit for industrial 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: Move to fresh air. If symptoms persist, call a physician.

In case of skin contact: If skin irritation persists, call a physician.

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

If swallowed: If accidentally swallowed obtain immediate medical attention.

SECTION 5. FIREFIGHTING MEASURES

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

Specific hazards during firefighting: 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: Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions: Do not allow uncontrolled discharge of product into the environment.

Methods and materials for containment and cleaning up: Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling: Avoid inhalation, ingestion and contact with skin and eyes.

For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage: Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry, cool and well-ventilated place.
SECTION 8. EXPOSURE CONTROLS/PERSONAL 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.

**Eye protection**
Safety glasses
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**
Wash hands before breaks and immediately after handling the product.
Remove contaminated clothing and protective equipment before entering eating areas.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
powder

**Colour**
off-white

**Odour**
odourless

**pH**
Not applicable

**Melting point/range**
1,200 °C

**Flash point**
Not applicable

**Flammability (solid, gas)**
The product is not flammable.

**Upper explosion limit**
Not applicable

**Lower explosion limit**
Not applicable

**Vapour pressure**
Not applicable

**Relative vapour density**
Not applicable

**Density**
No data available
Solubility(ies)
Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : Not applicable

Thermal decomposition : Not applicable

Viscosity
Viscosity, kinematic : Not applicable

Explosive properties : Not applicable

VOC : 0 %

Oxidizing properties : Not applicable

Refractive index : Not applicable

SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions : Stable

Incompatible materials : None.

Hazardous decomposition products : Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
inhalation (dust/mist/fume)
Skin
Eye contact

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.

800-452-4862  www.Lagunaclay.com/SDS/  info@lagunaclay.com
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability

Product:
Biodegradability: Remarks: Not applicable

Bioaccumulative potential

Product:
Bioaccumulation: Remarks: Does not accumulate in organisms.

Mobility in soil

Product:
Distribution among environmental compartments: Remarks: Not applicable

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
Not applicable for product as supplied.

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
This product contains components that are reportable under the regulation.

New Jersey Right To Know
This product contains components that are reportable under the regulation.
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:

- **EINECS**: On the inventory, or in compliance with the inventory
- **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.
- **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
2. Modelling Study of Ceramic Frits Formulation for their Classification in REACH, Universtat Jaume I, 2009
3. 2009 Validity Assessment of the Exemption Dossier Cera

Revision Date: 07/11/2016

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