MATERIAL SAFETY DATA SHEET

TO THE PURCHASER: This MSDS contains important environmental, safety and health information for your employees. Federal regulations require that this information be made available to them. If you recall this product, a copy of this MSDS should be given to the buyer.

PRODUCT IDENTIFICATION: 3195/3195-2
(Common Name) Ferro Frit 3195

CHEMICAL FAMILY: Frit TSCA Inventory CAS # 65997-18-4"+

SYNONYM: Chemical substances manufactured in the production of frit. (From US-EPA/TSCA description) "Frit is a mixture of inorganic chemical substances produced by rapidly quenching a melt. Complex combination of materials, confining the chemical substances thus manufactured as non-migratory components of glassy solid flakes or granules." +

SECTION I

MANUFACTURERS NAME: Ferro Corporation, Frit Division

MAIL: 4130 East 56th Street
P.O. Box 6550
Cleveland, Ohio 44105

TELEPHONE: For chemical emergency, call CHEMTREC: (800) 424-9300
Ferro 24 hour Informational number: (216) 641-3324
Facility Informational number: (216) 641-6580

SECTION IIb - "SARA III" DATA

PRODUCT IDENTIFICATION: 3195/3195-2

COMPONENT: None

PERCENT PRESENT: (a)

(a) The percent reported is based on the theoretical composition of this frit. While existing in theory, the component(s) mentioned are only present as part of Frit (CAS # 65997-18-4).

SECTION III - PHYSICAL DATA

SPECIFIC GRAVITY (H2O = 1) 1.6-3.0
MELTING POINT (°F) > 1200

SOLUBILITY IN WATER Negligible

APPEARANCE AND ODOR Frit flake or milled glass powder / Odorless

Boiling Point / Vapor Pressure / Vapor Density / % Volatiles By Volume / Evaporation Rate All N/A

SECTION IV - FIRE & EXPLOSION HAZARD DATA

FLASH POINT: N/A

FLAMMABLE LIMITS: N/A

EXTINGUISHING MEDIA: None

UNUSUAL FIRE & EXPLOSION HAZARDS: None

SECTION V - REACTIVITY DATA

STABILITY: Stable X Unstable N/A Conditions to avoid N/A

INCOMPATIBILITY: (Materials to avoid) N/A

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Avoid fumes from firing

HAZARDOUS POLYMERIZATION: Will not occur X Conditions to avoid N/A
SECTION VI: HEALTH HAZARD DATA

PRINCIPAL ROUTES OF ABSORPTION: Inhalation and ingestion

EFFECTS OF OVEREXPOSURE: Prolonged contact with this dust can be very irritating to the eyes and/or skin. High dust levels can irritate the respiratory tract. With adequate ventilation, dust control, and good personal hygiene, symptoms of overexposure should not occur. Advise regular medical monitoring of employees by a physician competent in industrial health.

CARCINOGENICITY: N/A

EMERGENCY AND FIRST AID PROCEDURES: If overexposure is suspected move employees to fresh air; if breathing is difficult give oxygen. Call a physician. For dust in eyes flush immediately with clean water and call a physician.

SOURCE OF HEALTH HAZARD DATA: This MSDS was developed from information on the constituent substances of this dust material, not from test data on the dust itself.

SECTION VII: PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Uncontaminated material may be recovered and re-used. If contaminated scoop, vacuum, or wash into a receptacle for disposal.

WASTE DISPOSAL METHOD: Follow Federal or State and Local regulations for disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Protect containers against physical damage; store in dry area away from feed and food products.

OTHER PRECAUTIONS: Employees should wash and change into clean clothes before going home.

SECTION VIII: CONTROL MEASURES

RESPIRATORY PROTECTION: (Specify type) Use a NIOSH approved dust and/or fume respirator as necessary.

VENTILATION: Local Exhaust - Recommended for dust control; vent dust to collector.

PROTECTIVE GLOVES: Use judgment - work gloves recommended.

EYE PROTECTION: Use judgment - safety glasses recommended.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear appropriate clean, protective clothing such as, but not limited to, coveralls, smocks, aprons, gloves, shoes and hats.

WORK/HYGIENIC PRACTICES: Food, beverages and smoking materials should NOT be in the work area. Hygiene is very important; employees should wash thoroughly before eating, drinking smoking or applying cosmetics.

Judgements as to the suitability of information herein or the purchaser’s purposes are necessarily the purchaser’s responsibility. Reasonable care has been taken in the preparation of this information, but FERRO EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF THIS INFORMATION FOR ANY PURCHASER’S USE OR FOR ANY CONSEQUENCE OF ITS USE.

Non-Standard Abbreviations Used on Material Data Sheets

ACGIH - American Conference of Government Industrial Hygienists
CAL/OSHA - California Occupational Safety and Health Administration
CAS # - Chemical Abstract Service Number
CFR - Code of Federal Regulations
FED/OSHA - Federal Occupational Safety and Health Administration
IARC - International Agency for Research on Cancer
MSDS - Material Safety Data Sheet
N/A - Not Applicable
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program (Department of Health and Human Services)
PEL - Permissible Exposure Limit
TSCA - Toxic Substances Control Act
TLV - Threshold Limit Value (registered terminology of ACGIH)
TWA - Time Weighted Average
US-EPA - United States Environmental Protection Agency