AZAR MINA CERAM

MATERIAL SAFETY DATA SHEET[Document title]

1. COMPANY AND PRODUCT IDENTIFICATION

AZAR MINA CERAM
NO.516 , 5TH FLOOR , SHEMIRAN CENTER COMPLEX , ARTESH HIGHWAY ,TEHRAN,IRAN
Health Emergency: +98 21 22483897 , +98 912 1716229
Product Name: CERAMIC FRIT
Product Type: LEAD FREE CERAMIC FRIT - CODE : AM4101-7

2. HAZARDS IDENTIFICATION

HMIS Hazard Ratings for Product

Health: 3		0 = Minimal
Flammability: 0		1 = Slight
Reactivity: 0		2 = Moderate
Personal Protection:	F (if spraying)	3 = Serious
		4 = Severe

NO HAZAEDOUS COMPONENTS	

Other Information
Frits are produced from the chemical reactions which occur during the high temperature smelting of various raw materials to form a molten glass. This glass is rapidly cooled and then ground to produce powdered frit. The lead listed for this product is incorporated into the glass structure of the frit, chemically reacted in the form of silicates of other essentially insoluble complexes. Exposure to the hazardous ingredients can occur if spray mist is inhaled or glaze ingested and the ingredient dissolves out of the glass. Because of the chemical stability of frit and its resistance to attack by acids or alkali, this is anticipated to occur very slowly. This product contains the following component(s) that require reporting :

3. HAZARDS IDENTIFICATION

COMPONENT PERCENT PRESENT

Lead compounds	Up to 0 % (as PbO)
Barium compounds	Up to 0 % (as BaO)
Cadmium compounds	Up to 0 % (as CdO)

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 . Total analysis is being presented below:

Weight% Chemical Analysis

SiO2	Al2O3	Ca/MgO	Na/k2O	Fe/TiO2	ZnO	B2O3	BaO	SrO
61-63 %	6-7%	22-24 %	3-4 %	0-0.5 %	1-2 %	1-2 %	0-1 %	0-1 %

4. FIRST AID MEASURES

Eye Contact: Flush eyes with large amounts of water until irritation subsides. Consult a physician.
Skin Contact: Wash affected skin areas thoroughly with soap and water. Consult a physician if irritation persists.

Inhalation: Move subject to fresh air; if breathing is difficult give oxygen. Consult a physician.
Ingestion: If swallowed, consult a physician. Induce vomiting if prescribed under medical supervision. Never give anything by mouth to an unconscious person

5. FIRE FIGHTING MEASURES
Autoignition Temperature: Nonflammable
Flash Point: Not Applicable
Upper Explosive Limit (%): Not Applicable
Lower Explosive Limit (%): Not Applicable

Extinguisher Media: Product is nonflammable – Use extinguishing media appropriate for surrounding fire
Special Firefighting Procedures: Not Applicable
Fire & Explosion Hazards: Not Applicable
Flame ability : No

6. ACCIDENTAL RELEASE MEASURES
Spill or Leak Procedures: Uncontaminated material may be recovered and re-used. If contaminated scoop, vacuum, or wash into a receptacle for disposal.

7. HANDLING AND STORAGE
Handling: When product in use, do not eat, drink, or smoke. Wash hands immediately after use. Keep sealed. **Keep out of reach of children. Do not use this product if pregnant or contemplating pregnancy.**
Storage: Protect containers against physical damage; store in dry area away from feed and food products.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION
Respiratory Protection: If spraying, do not inhale mist. Use respirator that is NIOSH approved for sprays and mists.
Ventilation: Local exhaust ventilation recommended
Mechanical (General): Recommended when spraying
Protective Gloves: Not needed for foreseeable conditions of use
Eye Protection: Wear safety glasses with side shields
Other Protective Clothing or Equipment: None needed
Work/Hygienic Practices: Good hygiene practices should be followed. When product in use, do not eat, drink, or smoke. Wash hands immediately after use. Keep sealed. **Keep out of reach of children. Do not use this product if pregnant or contemplating pregnancy.**

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance / Physical Description:	Crushed Glass. Odorless
pH:	7 - 10
Melting Point:	1300°C
Solubility in Water:	Insoluble

10. STABILITY AND REACTIVITY

Stability:	Stable
Incompatible Materials:	None known
NFPA Reactivity Hazard Class:	0 = Insignificant

Hazardous Decomposition Products: Avoid fumes when firing
Hazardous Polymerization: Will not occur
Conditions to Avoid: Not Known

11. TOXICOLOGICAL INFORMATION

Principal Routes of Absorption: Inhalation and ingestion
Effects of Overexposure: Of primary concern is chronic overexposure to lead and cadmium. Their initial warning properties are poor. Prolonged or repeated inhalation and/or ingestion of lead containing frit dust may result in lead poisoning, with symptoms of weight loss, stomach cramps, loss of coordination and joint and muscle pain. Lead can cause kidney damage and delayed effects involving the blood, gastrointestinal, nervous, and reproductive systems. Excessive exposure to lead dusts during pregnancy can result in neurological disorders in infants.
Metal fumes and/or fluoride containing vapors from firing may cause lung inflammation and injury in terms of hours with symptoms of chest pains, chills, cough, headache, and diarrhea.
Prolonged contact with frit dust can be very irritating to the eyes and/or skin. High dust levels can be irritating to 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.

Creation Date: 08/01/2021
Revision Date:
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