KRETUS®

Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: **KRETUS® EcoMagnetic™ Coating Part C**

Recommended Use: For professional use only.

Manufacturer: Kretus, 1055 W. Struck Ave., Orange, CA 92867

Telephone: (714) 694-2061

24 Hour Emergency Telephone Number: (800) 255-3924 (CHEMTEL)

Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.
Comments: To the best of our knowledge, this Safety Data Sheet conforms to the requirements of US OSHA 29 CFR1910.1200, 91/155/EEC.

SECTION 2: HAZARD IDENTIFICATION

Emergency Overview: May be harmful if ingested or inhaled.

WARNING

May be harmful if swallowed or if inhaled.

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Take off contaminated clothing and wash before reuse.

Response: IF INHALED, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Storage: Keep container tightly closed and locked in a cool, well-ventilated place.

Disposal: Dispose of contents/container to an approved waste disposal plant in accordance with applicable laws and regulations, and product characteristics at time of disposal.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Chemical Name	CAS No.	Concentration (% by Weight)
Silicone	231-130-8	No Data Available
Iron	231-096-47439-89-6	No Data Available

See section 11 for toxicological information.

SECTION 4: FIRST-AID MEASURES

Contact with Eyes
Remove contact lenses and flush eyes with plenty of lukewarm water. Use fingers to ensure that eyelids are separated and the eye is being irrigated. Get medical attention if irritation occurs.

Contact with Skin
Wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Thoroughly clean shoes before reuse. Wash clothing and other apparel before reuse.

Inhalation
Remove person to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion
Do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Product as supplied is not combustible. To extinguish the fire use dry sand or other suitable dry powder.

Unsuitable Extinguishing Media: High volume water jet.

Unusual Fire and Explosion Hazards: Toxic and irritating gases/fumes may be given off during extreme molten or hot ferro-silicon in combination with water. FeSi particles suspended in the air can cause an explosion.

Hazardous Combustion Products: None known.

Advice for Fire Fighters: Self-contained breathing apparatus must be worn in unventilated spaces.. Toxic gases/fumes may be given off during molten burning or thermal decomposition.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Avoid inhalation. Wear appropriate personal protective equipment. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

Environmental Precautions
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform authorities if the product has caused environmental pollution (sewers, drains, waterways or soil).

Containment/Clean-up Measures
Keep material dry. Avoid generation of dust. Material in the form of dust should be collected in suitable containers. Damp or wet product must be kep away from dry, and wet material must not be collected and stored in closed containers. Ferrosilicon in the form of dust should be vacuumed by using a spark-proof vacuuming system, rather than swept up.

SECTION 7: HANDLING AND STORAGE

Handling: Avoid generation of dust. Wear protective clothing, gloves, and goggles. Wear suitable respiratory protection where applicable. Avoid generating sparks or other ignition sources (e.g., welding) in areas with high dust concentrations. Addition of wet material to molten ferrosilicon may cause explosions due to formation of flammable hydrogen gas. Avoid reactions with acids like hydrofluoric acid and nitric acid, leading to the formation of toxic gases. Remove contaminated personal protective equipment (PPE), then wash hands and face thoroughly after handling and before eating and drinking. Keep container closed when not in use. Empty containers retain product residue and can be hazardous. Do not get in eyes, on skin or on clothing. Do not ingest. Avoid release to the environment.

Storage: Storage period in dry closed containers is 2 years after delivery by Pelorus. Keep away from food products during use and storage. Do not store in unlabeled, unapproved or reactive containers.

Incompatible Materials or Ignition Sources: Avoid strong acids.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Special Note for Exposure Control: Consult local authorities for further acceptable exposure limits. Exposure Limits/ Guidelines

Exposure Limits/Guidelines		
Chemical Name	**Result**	**ACGIH/OSHA**
Ferrosilicon FeSi 15 reaction mass of iron, iron disilicide, iron silicide and silicon.	STELs	None Established
	TWAs	None Established
	PEL	None Established

Engineering Measures/Controls: General dilution and local exhaust as necessary to control airborne dusts below appropriate airborne concentration standards and guidelines. No TWA is established. However, it is advisable not to exceed the following exposure on the basis of 8 hours: 10 mg/m3. Keep dust concentration below 4 mg/m3.

Environmental Exposure Controls: Avoid release to the environment.

Hygiene Measures: Wash hands, forearms and face thoroughly after handling products, before eating and drinking, smoking or using the lavatory and at the end of the working period. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Respiratory: In case of inadequate ventilation, wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use positive pressure supplied air respirator when airborne concentrations are not known, when airborne solvent levels are 10 times the appropriate TLV in a confined space or area with limited ventilation. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Contact health and safety professional or manufacturer for specific information.

Eye/Face: Use chemical resistant goggles.

Hands: Use safety gloves such as butyl rubber, nitrile rubber, or neoprene.

Skin/Body: Wear rubber or plastic apron and permeation resistant clothing, safety gloves, and long-sleeved shirts, and pants. Remove and wash contaminated clothing before re-use.

General Industrial Hygiene Considerations: Keep away from food and drink. Wash hands and face after use. Educate and train workers in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

Key to Abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene NIOSH = National Institute of Occupational Safety and Health OSHA = Occupational Safety and Health Administration

MSHA = Mine Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day 40hr/week exposures

STEL = Short Term Exposure Limits are based on 15 minute exposures

STEV = Short Term Exposure Value

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	Grayish Powder
Odor	None
Odor Threshold	Not Applicable
pH	Not Applicable
Melting/Freezing Point	1,220-1,400°C
Initial Boiling Point and Boiling Range	Not Applicable
Flash Point	Not Applicable
Evaporation Rate	Not Applicable
Flammability	Not Applicable
Upper/Lower Flammability or Explosive Limits	Not Applicable
Auto-ignition Temperature	Not Applicable
Vapor Pressure	No Data Available
Vapor Density	No Data Available
Specific Gravity	2.5-7.5 g/cm3
Solubility(ies)	Not Soluble in Water
Partition Coefficient: n-octanol/water	No Data Available
Auto-ignition Temperature	No Data Available
Decomposition Temperature	No Data Available
Viscosity	No Data Available
VOC (Volatile Organic Compounds)	0 g/L
NVW	100% ca

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable.

Possibility of Hazardous Reactions: Avoid incompatible materials.

Conditions to Avoid: Extreme heat.

Incompatible Materials: Strong acids.

Hazardous Decomposition Products: None known.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY
Based on available data ferrosilicon is not acutely toxic.
LD50 Oral Rat and Mouse >5,000 mg/kg (4h) for synthetic amorphous silica
LC50 Inhalation Rat >2.08 mg/l, 4h for synthetic amorphouse silica
LD50 Dermal Rat >5,000 mg/kg for silicon dioxide

IMMEDIATE (ACUTE) EFFECTS
Skin Corrosion/Irritation (Rabbit, 24h): None
Skin Sensitization (Guinea Pig): None
Carcinogenicity: OSHA Not Listed. IARC Not Listed. NTP Not Listed.

Ferrosilicon is considered not to be a skin or respiratory tract sensitizer, not irritating to eye, and not genotoxic.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: Acute Toxicity to Fish: The product does not meet the classification for chronic aquatic toxicity.

Persistence and Degradability: Not readily degradable.

Bioaccumulative Potential: No data available.

Other Adverse Effects: None known.

Other Information: No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste should be disposed of according to local, state, and federal regulations. Chemical residues are generally classified as special waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice or pass to a chemical disposal company. Dispose of containers with care.

SECTION 14: TRANSPORT INFORMATION

	UN Number	UN Proper Shipping Name	Transport Hazard Class(es)	Packing Group	Environmental Hazards
DOT	Not regulated	Not regulated	Not regulated	Not regulated	None known.
IMO/IMDG	Not regulated	Not regulated	Not regulated	Not regulated	None known.
IATA/CAO	Not regulated	Not regulated	Not regulated	Not regulated	None known.

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code.

SECTION 15: REGULATORY INFORMATION

Safety and Environmental Regulations/ Legislation Specific for the Substance or Mixture

State Right to Know

COMPONENT	CAS	MA	NJ	PA

COMPONENT	CAS	MA	NJ	PA
Ferrosilicon FeSi 15 reaction mass of iron, iron disilicide, iron silicide, and silicon.	See above.	–	–	–

Inventory

COMPONENT	CAS	INVENTORIES
Ferrosilicon FeSi 15 reaction mass of iron, iron disilicide, iron silicide, and silicon.	See above.	TSCA, DSL, EINECS/ELINCS, AICS, TECSC, HSNO, NCSR, KECI

United States
Environment
U.S. – CERCLA/SARA – Hazardous Substances and their Reportable Quantities: None.
U.S. – SARA – Section 311/312 Hazard Categories: None.
U.S. – CERCLA/SARA – Section 302 Extremely Hazardous Substances TPQs: None U.S. – CERCLA/SARA – Section 313 – Emissions Reporting: None
U.S. – CERCLA/SARA – Section 313 – PBT Chemical Listing: None

United States – California
Environment
U.S. – California – Proposition 65 – Carcinogens List: None
U.S. – California – Proposition 65 – Developmental Toxicity: None
U.S. – California – Proposition 65 – Maximum Allowable Dose Levels (MADL): None
U.S. – California – Proposition 65 – No Significant Risk Levels (NSRL): None
U.S. – California – Proposition 65 – Reproductive Toxicity – Female: None
U.S. – California – Proposition 65 – Reproductive Toxicity – Male: None

SECTION 16: OTHER INFORMATION

Personal Protection: Safety goggles, neoprene rubber gloves, vapor respirator

Prepared by Kretus, Inc.

Revision Date 11/09/2022

Revision Note No information available.

Disclaimer
The information and recommendations presented herein are accurate to the best of our knowledge. User must conduct their own tests to determine the suitability of these products for their particular purposes and usage. Because of numerous factors affecting results, KRETUS® and its affiliation makes no warranty of any kind, express or implied, including those of merchantability and fitness for purpose, other than material conforms to our applicable current specifications. KRETUS® assumes no legal responsibility for use or reliance on the information contained in this safety data sheet.