

## SAFETY DATA SHEET



350P Electric Refractory, Powder

Date Prepared : 05/11/2015

SDS No : SCC-350P

Date Revised : 02/05/2018

Revision No : 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 350P Electric Refractory, Powder  
**PRODUCT DESCRIPTION:** Electric Refractory, Powder  
**PRODUCT CODE:** 350P  
**PRODUCT FORMULATION NAME:** 350P Electric Refractory, Powder  
**CHEMICAL FAMILY:** Sodium Silicate Cement

**MANUFACTURER**

Sauereisen  
 160 Gamma Drive  
 Pittsburgh, PA 15238  
**Emergency Contact:** John Kozak  
**Emergency Phone:** (800)424-9300  
**Alternate Contact:** Don Schubert  
**Customer Service:** 412 963-0303  
**E-Mail:** jakozak@sauereisen.com

**24 HR. EMERGENCY TELEPHONE NUMBERS**

Poison Control Center (Medical):1-800-222-1222  
 CHEMTREC (US Transportation): 1-800-424-9300  
 CHEMTREC (Outside US):1-703-527-3887

## 2. HAZARDS IDENTIFICATION

**GHS CLASSIFICATIONS****Health:**

Acute Toxicity (Inhalation), Category 4  
 Eye Irritation, Category 2B  
 Skin Irritation, Category 2  
 Target Organ Toxicity (Repeated exposure), Category 2  
 Carcinogenicity, Category 1B

**Environmental:**

Acute Hazards to the Aquatic Environment, Category 3

**GHS LABEL**

Exclamation  
mark



Health  
hazard

**SIGNAL WORD:** DANGER**HAZARD STATEMENTS**

H315: Causes skin irritation.  
 H320: Causes eye irritation.  
 H333: May be harmful if inhaled.  
 H402: Harmful to aquatic life.  
 H350: May cause cancer .  
 H373: May cause damage to lungs or kidneys through prolonged or repeated exposure via inhalation.

**PRECAUTIONARY STATEMENTS****Prevention:**

- P201: Obtain special instructions before use.  
 P202: Do not handle until all safety precautions have been read and understood.  
 P264: Wash ... thoroughly after handling.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.  
 P260: Do not breathe dust/fume/gas/mist/vapours/spray.  
 P273: Avoid release to the environment.  
 P271: Use only outdoors or in a well-ventilated area.

**Response:**

- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P302+P352: IF ON SKIN: Wash with plenty of water/...  
 P314: Get medical advice/attention if you feel unwell.  
 P332+P313: If skin irritation occurs: Get medical advice/attention.  
 P322: Specific measures (see ... on this label).  
 P362: Take off contaminated clothing.  
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P312: Call a POISON CENTER/doctor/...if you feel unwell.

**Storage:**

- P405: Store locked up.

**Disposal:**

- P501: Dispose of contents/container in accordance with local/national regulations.

**POTENTIAL HEALTH EFFECTS**

**EYES:** Contact may cause eye irritation.

**SKIN:** Itching or burning will occur with repeated or prolonged contact. May exacerbate existing skin conditions.

**INHALATION:** Dust or vapor irritating to eyes and respiratory tract.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	Wt.%	CAS
Silica, Crystalline	< 80	14808-60-7
silicic acid (h <sub>2</sub> si <sub>2</sub> o <sub>5</sub> ), sodium salt (1:2)	< 10	13870-28-5
Sodium Fluorosilicate	< 10	16893-85-9
Kaolin	< 10	1332-58-7

**4. FIRST AID MEASURES**

**EYES:** Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

**SKIN:** Wash contact area thoroughly with soap and water. Remove contaminated clothing. Launder before reuse. Seek medical attention if erythema develops.

**INGESTION:** If swallowed, do not induce vomiting. Give large quantities of water. Seek medical attention immediately. Never give anything by mouth to an unconscious person. Advise physician of possible fluoride exposure.

**INHALATION:** If difficulty breathing, move to fresh air once. Apply artificial respiration if breathing has stopped. Seek medical attention.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

**EYES:** Causes pain, redness and tearing.

**SKIN:** Contact causes skin irritation.

**INHALATION:** Headache, nausea, and irritation to nose and throat. Prolonged or repeated exposure may cause asthma.

**CHRONIC EFFECTS:** The adverse health effects-- silicosis, lung cancer, autoimmune and chronic kidney diseases, tuberculosis and non-malignant respiratory diseases-- are chronic effects.

Prolonged exposure to fluoride over years may produce an embrittlement and densification of bones and increase calcification

of ligaments.

**NOTES TO PHYSICIAN:** Further treatment may be necessary. Contact local poison control center. Possible Fluoride exposure.

#### 5. FIRE FIGHTING MEASURES

**FLAMMABLE CLASS:** NA = Not Applicable

**FLAME PROPAGATION OR BURNING RATE OF SOLIDS:** None

**GENERAL HAZARD:** NA = Not Applicable

**EXTINGUISHING MEDIA:** NA = Not Applicable

**HAZARDOUS COMBUSTION PRODUCTS:** NA = Not Applicable

**EXPLOSION HAZARDS:** Not sensitive to mechanical impact or static discharge

**FIRE FIGHTING PROCEDURES:** NA = Not Applicable

**FIRE FIGHTING EQUIPMENT:** NA = Not Applicable

**FIRE EXPLOSION:** NA = Not Applicable

**SENSITIVE TO STATIC DISCHARGE:** None

**SENSITIVITY TO IMPACT:** None

**HAZARDOUS DECOMPOSITION PRODUCTS:** NA = Not Applicable

#### 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Clean-Up Procedure: Spill area may become slippery; use care to avoid falls. Flush spill area with plenty of water.

**LARGE SPILL:** For spill greater than 100 gallons; isolate, dike and store discharged material, if possible. Collect with dry sand, clay or other absorbent. Flushed cleaned areas with water. Observe Environmental regulations. Wear PPE - gloves, rubber boots, and safety glasses.

**SPECIAL PROTECTIVE EQUIPMENT:** Wear gloves, rubber boots, and safety glasses.

#### 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Avoid contact with eyes, skin, and clothing.

For industrial use only!

Do not take internally.

May cause irritation.

Wash thoroughly after handling.

**HANDLING:** Wear protective safety glasses, gloves and protective clothing.

**STORAGE:** Store in a cool, dry place.

Keep container closed when not in use.

Keep away from food and drinking water.

Always mix well before using.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**EXPOSURE GUIDELINES**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
EXPOSURE LIMITS				
Chemical Name	Type		ppm	mg/m <sup>3</sup>
Silica, Crystalline	OSHA PEL	TWA		5
		STEL	0.05	
	ACGIH TLV	TWA		0.025
	Supplier OEL	TWA	NL	NL
STEL		NL	NL	
Sodium Fluorosilicate	OSHA PEL	STEL		2.5
	ACGIH TLV	STEL		2.5
Kaolin	OSHA PEL	TWA		0.5
	ACGIH TLV	TWA		0.5

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Safety glasses with side shields, chemical resistant goggles, or face shield. Contact lenses should not be worn.

**SKIN:** Permeation resistant gloves (butyl rubber, nitrile rubber or poly vinyl alcohol). Please note that PVA degrades in water. Cover exposed skin as possible with appropriate clothing. If skin creams are used, keep area covered by cream to a minimum.

**RESPIRATORY:** This product contains encapsulated silica. By OSHA letter of interpretation, the silica is not considered respirable in either the cement paste form, or cured cement form. However, if the cured cement is polished, ground, or chipped during processing, handling, or use, the silica may be released as an airborne respirable particle. In these Instances appropriate personal protective equipment and local ventilation controls must be employed.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**ODOR:** No appreciable odor.

**ODOR THRESHOLD:** Not Available

**APPEARANCE:** Powder

**COLOR:** White

**pH:** 11.5

**PERCENT VOLATILE:** NA = Not Applicable

**FLASH POINT AND METHOD:** NA = Not Applicable

**FLAMMABLE LIMITS:** 0 to 0

**AUTOIGNITION TEMPERATURE:** NA = Not Applicable

**VAPOR PRESSURE:** Vapor is water

**VAPOR DENSITY:** Same as water vapor.

**SPECIFIC GRAVITY:** 2 to 2.2

**10. STABILITY AND REACTIVITY**

**REACTIVITY:** Yes

**HAZARDOUS POLYMERIZATION:** No

**STABILITY:** Stable under normal conditions of use and storage.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Silica will dissolve in hydrofluoric acid and produce a corrosive gas - Silicon

tetrafluoride.

**INCOMPATIBLE MATERIALS:** Avoid contact with acids, and acid vapors.

## 11. TOXICOLOGICAL INFORMATION

**SERIOUS EYE DAMAGE/IRRITATION:** Eye, Skin and Inhalation Irritant.

**GERM CELL MUTAGENICITY:** Not Available

### CARCINOGENICITY

**IARC:** Silica is listed as having sufficient evidence to be a carcinogen in humans and in experimental animals, for the carcinogenicity of quartz and cristobalite. The overall IARC evaluation was that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (group 1).

**NTP:** The National Toxicology Program, in its Ninth Annual report on Carcinogens, classified "silica, crystalline (respirable)" as a known human carcinogen.

### NOTES:

Silica is listed by IARC and NTP as having sufficient evidence to be a carcinogen in humans and in experimental animals for the carcinogenicity of quartz and cristobalite. The overall IARC evaluation was that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (group 1).

**REPRODUCTIVE TOXICITY:** Not Available

### STOT-SINGLE EXPOSURE:

-Nephrotoxicity - Recent studies suggest that exposure to respirable crystalline silica or that the disease silicosis is associated with the increased incidence of kidney disorders.

### GENERAL COMMENTS:

ADDITIONAL INFORMATION: Crystalline Silica (Quartz)

-Silicosis - The major concern is silicosis caused by the inhalation of respirable crystalline silica dust. Silicosis can exist in several forms, chronic (or ordinary), accelerated, or acute.

-Scleroderma - There is evidence that exposure to respirable crystalline silica or silicosis is associated with incidence of scleroderma of the lungs.

-Tuberculosis - Individuals with silicosis are at risk to develop tuberculosis, if exposed to persons with tuberculosis.

## 12. ECOLOGICAL INFORMATION

**AQUATIC TOXICITY (ACUTE):** Sodium Silicate has low toxicity. TLM 96 hr in mosquitofish is 2,320 mg/L. High pH (alkalinity) of undiluted material is harmful to aquatic life.

**96-HOUR LC<sub>50</sub>:** ≤ 5000

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** Comply with federal, state and local regulations. If approved, flush with water to chemical sewer. For large quantities, neutralize with dilute acid and landfill solids or flush neutral liquid to sewer with plenty of water.

## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

**PROPER SHIPPING NAME:** Not Regulated

**TECHNICAL NAME:** NA = Not Applicable

**PRIMARY HAZARD CLASS/DIVISION:** Not Regulated

### ROAD AND RAIL (ADR/RID)

**PROPER SHIPPING NAME:** Not Regulated

**AIR (ICAO/IATA)****SHIPPING NAME:** Not Regulated**VESSEL (IMO/IMDG)****SHIPPING NAME:** Not Regulated**CANADA TRANSPORT OF DANGEROUS GOODS****SHIPPING NAME:** Not Regulated**15. REGULATORY INFORMATION****UNITED STATES****DOT LABEL SYMBOL AND HAZARD CLASSIFICATION**

Toxic

R36/37/38: Irritating to eyes, respiratory system and skin.

R40: Limited evidence of a carcinogenic effect.

R48/20: Harmful : danger of serious damage to health by prolonged exposure through inhalation.

S22: Do not breathe dust.

S24/25: Avoid contact with skin and eyes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)****311/312 HAZARD CATEGORIES:** Chronic. Carcinogen. Irritant.**FIRE:** No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** No **CHRONIC:** No**313 REPORTABLE INGREDIENTS:** There are no listed chemicals above detection limits in this compound.**TITLE III NOTES:** None above detection limits.**CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)****CERCLA REGULATORY:** None**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

Chemical Name	CAS
Silica, Crystalline	14808-60-7
silicic acid (h <sub>2</sub> si <sub>2</sub> o <sub>5</sub> ), sodium salt (1:2)	13870-28-5
Sodium Fluorosilicate	16893-85-9
Kaolin	1332-58-7

**TSCA STATUS:** Components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substances Inventory.**REGULATIONS****STATE REGULATIONS:**

Massachusetts Toxic Use Reduction Act- Silica, Crystalline (respirable size, <10microns) is toxic for purposes of the Massachusetts Toxic Use Reduction Act

Pennsylvania Worker and Community Right to Know Act- Quartz is a hazardous substance under the act, but it is not a special hazardous substance or an environmental hazardous substance.

California Inhalation Reference Exposure Level (REL)- California established a chronic REL of 3 ug for silica

crystalline, respirable). A chronic REL is an airborne level of a substance at or below which no adverse health effects are anticipated in individuals indefinitely exposed to the substance at that level.

**CALIFORNIA PROPOSITION 65:** Known to the State of California to cause cancer and reproductive toxicity and subject to warning and discharge requirements under the "Safe Drinking Act of 1986".

It has not been determined and cannot be ascertained that this product would not expose users to the listed chemicals at the very low level prescribed in the regulations. Therefore, it is the user's responsibility to determine if the percent of the hazardous / carcinogenic ingredients listed elsewhere in the SDS comply with State of California regulations.

## CANADA

### WHMIS HAZARD SYMBOL AND CLASSIFICATION



Toxic

R36/37/38: Irritating to eyes, respiratory system and skin.

R40: Limited evidence of a carcinogenic effect.

R48/20: Harmful : danger of serious damage to health by prolonged exposure through inhalation.

S22: Do not breathe dust.

S24/25: Avoid contact with skin and eyes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

**WHMIS CLASS:** Class D, Division 2, Subdivision A: Materials cause other toxic effects, very toxic material.

**DOMESTIC SUBSTANCE LIST (INVENTORY):** Components included on inventory

## 16. OTHER INFORMATION

**PREPARED BY:** John A Kozak      **Date Revised:** 02/05/2018

**REVISION SUMMARY:** This SDS replaces the 05/11/2015 SDS. Revised: **Section 9:** SPECIFIC GRAVITY, (VOC).

### HMIS RATING

HEALTH	*	1
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		E