1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 29 Low Expansion Cement, Powder
PRODUCT DESCRIPTION: Low Expansion Cement, Powder
PRODUCT CODE: 29P
PRODUCT FORMULATION NAME: 29 Low Expansion Cement, Powder
CHEMICAL FAMILY: Zircon Cement Filler

24 HR. EMERGENCY TELEPHONE NUMBERS
Sauereisen
160 Gamma Drive
Pittsburgh, PA 15238
Emergency Contact: John Kozak
Emergency Phone: (800)444-8235
Alternate Contact: Anthony Comport
Customer Service: 412 963-0303
E-Mail: jakozak@sauereisen.com

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

Environmental:
- Acute Hazards to the Aquatic Environment, Category 3

GHS LABEL

Exclamation mark

SIGNAL WORD: WARNING

HAZARD STATEMENTS
- H315: Causes skin irritation.
- H320: Causes eye irritation.
- H333: May be harmful if inhaled.
- H402: Harmful to aquatic life.
- 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.

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Wt.%</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>zircon (zr(sio4))</td>
<td>&lt; 80</td>
<td>14940-68-2</td>
</tr>
<tr>
<td>Sodium Fluorosilicate</td>
<td>&lt; 30</td>
<td>16893-85-9</td>
</tr>
</tbody>
</table>

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 at 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.

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Type</th>
<th>ppm</th>
<th>mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>zircon (zr(sio4))</td>
<td>OSHA PEL</td>
<td>STEL</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV</td>
<td>TWA</td>
<td>10</td>
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<tr>
<td>Sodium Fluoro Silicate</td>
<td>OSHA PEL</td>
<td>STEL</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>ACGIH TLV</td>
<td>STEL</td>
<td>2.5</td>
</tr>
</tbody>
</table>

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: No special requirements under ordinary conditions of use and with adequate ventilation. Use NIOSH approved mist respirator where spray occurs.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: No appreciable odor.
ODOR THRESHOLD: Not Available
APPEARANCE: Powder
COLOR: White
pH: 10.5 to 11
PERCENT VOLATILE: NA = Not Applicable
10. STABILITY AND REACTIVITY

REACTIVITY: Yes
HAZARDOUS POLYMERIZATION: No
STABILITY: Stable under normal conditions of use and storage.
INCOMPATIBLE MATERIALS: Avoid contact with acids, and acid vapors.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY
- DERMAL LD$_{50}$: No data available.
- ORAL LD$_{50}$: No data available.
- INHALATION LC$_{50}$: No data available.

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.
- OSHA: Crystalline Silica (Quartz) is not regulated by the US Occupational Safety and Health Administration as a 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$_{50}$: ≤ 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

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

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

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION
Toxic

R36/37/38: Irritating to eyes, respiratory system and skin.
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: 06/15/2020

REVISION SUMMARY: This SDS replaces the 05/27/2020 SDS.

HMIS RATING

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>HEALTH</td>
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</tr>
<tr>
<td>FLAMMABILITY</td>
<td>0</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>0</td>
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<tr>
<td>PERSONAL PROTECTION</td>
<td>E</td>
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</table>