1. **Product and Company Identification**

**Product Identifier**

Product form: Solid substance

Substance name: SII Foundry Ceramics

Common name: – FS4 Fused Silica Pouring Cups

CAS No.: NA (mixture)

Formula: NA (mixture)

Synonyms: Pouring Cup, Mullite, Clay-Bonded Refractory

Intended use of the substance/mixture:

Name, Address, and Telephone of the Responsible Party:

    Schaefer Industries, Inc.
    981 Postal Road
    Allentown PA  18109
    610-264-7740

Emergency telephone number: 610-264-7740

2. **Hazard Identification**

**Classification of the substance or mixture**

Classification in accordance with 29 CFR §1910.1200 (OSHA)

During normal operation and usage, ceramic composite products are not classified as a hazardous substance. This product, under normal usage, does not present inhalation, ingestion, or other chemical hazards. However, operations such as grinding, cutting, burning, and welding of such products may release dusts, fumes, or vapors which may present health or physical hazards. Therefore, the hazards described below relate to non-routine operations or uses.

**As Solid Substance:** Not classified as a hazardous substance.
Dust/Respirable Particulate form:
Eye Irritation (Category 2A), H319
STOT, single (Category 3), H335
Carcinogencity (Category 1A), H350
STOT, repeated (Category 1), H372
STOT, repeated (Category 2), H373

Label Elements, including precautionary statements

Under normal conditions and use (as a solid substance)

Pictogram (as a solid substance): no pictogram
Signal Word: no signal word
Hazard Statement: no hazard statement
Precautionary Statement: no precautionary statement

As a dust or particulate matter in air

Pictogram (as a dust or particulate matter in air):
Signal Word: Danger

Hazard Statements:
H319  Causes serious eye irritation
H335  May cause respiratory irritation
H350  May cause cancer
H372  Causes damage to organs through prolonged or repeated exposure
H373  May cause damage to organs (Lungs) through prolonged or repeated exposure if inhaled

Precautionary Statements:

P201  Obtain special instructions before use
P202  Do not handle until all safety precautions have been read and understood
P260  Do not breathe dust
P264  Wash hands thoroughly after handling
P270  Do not eat, drink, or smoke when using this product
P308+P313 If exposed or concerned: Get medical advice/attention
P314  Get medical attention if you feel unwell
P405  Stored locked up
P501  Dispose of contents in accordance with state/federal requirements
3. Hazard Identification

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, vitreous</td>
<td>60676-86-0</td>
<td>45-55%</td>
<td>Eye irritation (Category 2A), H319 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335 Specific target organ toxicity - repeated exposure, Inhalation (Category 2), Lungs, H373</td>
</tr>
<tr>
<td>Silicon dioxide (Crisobalite)</td>
<td>14464-46-1</td>
<td>20-30%</td>
<td>Carcinogenicity, 1A, H350</td>
</tr>
<tr>
<td>Calcined Kaolin (Mullite)</td>
<td>1302-93-8</td>
<td>20-30%</td>
<td>Not classified as a hazardous substance</td>
</tr>
<tr>
<td>Amorphous Silica</td>
<td>7631-86-9</td>
<td>5-10%</td>
<td>Specific Target Organ Toxicity (repeated exposure), 1, H372</td>
</tr>
</tbody>
</table>

4. First Aid Measures

General Advice: Consult a physician if dust is inhaled and not feeling well.

If inhaled: Move person to fresh air. If not breathing, attempt CPR. Consult physician immediately.

If skin contact: Wash off with soap and water.

If eye contact: Flush eyes with water as a precaution. Consult physician if necessary.

If swallowed: Rinse mouth with water. Consult a physician.

Symptoms/Effects: Described in section 2, but should not pose problem in solid form. In dust form, breathing particles can irritate the throat as a first symptom.

Immediate Medical Attention: No data available in solid or dust form.

5. Fire Fighting Measures

Extinguishing Media: Not flammable in solid or dust form. In case of fire nearby, it is safe to use water spray, foam, dry chemical, or carbon dioxide.
6. Accidental Release Measures

Personal Precautions/Protective Equipment/Emergency Procedures: Use PPE in situations where dust is evident. Exposure to dust over OSHA’s PEL requires a NIOSH approved respirator.

Methods & Materials for Containment and Cleanup: Pick up and arrange disposal without creating a dust cloud. Sweep up and shovel. Keep in suitable, closed container for disposal.

7. Handling and Storage

Precautions for Safe Handling: Not applicable for solid object. In dust form due to grinding or processing, avoid dust cloud by sweeping slowly or using appropriate vacuum system. Where applicable, use local exhaust ventilation at places where dust is formed.

Conditions for Safe Storage, including Incompatibles: In dust form, keep container closed in a dry, well-ventilated location.

8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No.</th>
<th>OSHA PEL (mg/m³)</th>
<th>NIOSH REL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica, vitreous</td>
<td>60676-86-0</td>
<td>20 Million particles per cubic foot</td>
<td>0.05 mg/m³</td>
</tr>
<tr>
<td>Silicon Dioxide</td>
<td>14464-46-1</td>
<td>30 mg/m³/(%SiO₂ + 2); total</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³/(%SiO₂ + 2); respirable</td>
<td></td>
</tr>
<tr>
<td>Calcined Kaolin (Mullite)</td>
<td>1302-93-8</td>
<td>15 (total); 5 (respirable)</td>
<td></td>
</tr>
<tr>
<td>Amorphous Silica</td>
<td>7631-86-9</td>
<td>80 mg/m³/%SiO₂</td>
<td>6</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls: Handle in accordance with good industrial hygiene and safety practices. Provide ventilation where the process may generate dust (e.g., grinding, cutting, etc.).

Personal Protective Equipment: Not applicable when in solid form. As a dust, use the following PPE:
Eye/Face Protection: Use eye & face protection should flying particles be present.

Skin Protection: Use gloves and other body protection in relation to the handling and exposure to dust.

Respiratory Protection: Respiratory protection is not required under normal use. If dust is evident, use type N95 NIOSH approved respirators for protection at levels up to about 60 mg/m³.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>Hard ceramic solid object (normal use)</td>
</tr>
<tr>
<td>Flammability (solid/gas):</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor:</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>No data available</td>
</tr>
<tr>
<td>pH:</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point/Freezing Point:</td>
<td>~2,500°F for MP. No data available for FP.</td>
</tr>
<tr>
<td>Relative Density:</td>
<td>~2.5 to 2.9 g/cc</td>
</tr>
<tr>
<td>Initial Boiling Point &amp; Boiling Range:</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility:</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition Coefficient:</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-Ignition Temperature:</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

Reactivity: No data available

Chemical Stability: No data available

Possibility of Hazardous Reactions: No data available

Conditions to Avoid: No data available to suggest static discharge, shock or vibration effects
Incompatible Materials: No data available

Hazardous Decomposition Products: No data available

11. Toxicology Information

There are no known toxicological (health) effects for the typical use of this product. If a dust is generated due to grinding, cutting or processing, some data is available regarding the substances in the mixture.

Likely Routes of Exposure (as dust):

Inhalation: No data available

Ingestion: (7631-86-9) LD50 Oral-Rat- 3,160 mg/kg

Skin: No data available

Eye: No data available

Symptoms (as dust): No data available

Delayed & Immediate Effects (as dust): No data available

Toxicity Measures (as dust): See ingestion above.

Carcinogen Potential (as dust):

NTP: (14464-46-1) Known to be a human carcinogen.

IARC: (7631-86-9) Group 3; Not classifiable as to its carcinogenicity to humans.

(14464-46-1) Group 1; Carcinogenic to humans.

12. Ecological Information

Ecotoxicity: No data available

Persistence and Degradability: No data available

Bioaccumulative: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available
13. Disposal Considerations

Handle and dispose of used product or dust from processing in a safe manner in accordance with federal and state environmental laws.

14. Transport Information

Product or dust from processing is not a regulated substance under the DOT.

15. Regulatory Information

This product, as typically used, is not regulated under federal or state environmental laws. As a dust due to processing such as grinding or cutting, see the following information:

SARA 302: No substance in this product is subject to the requirements of this section.
SARA 313: No substance in this product is subject to the requirements of this section.
SARA 311/312: No substance in this product is subject to the requirements of this section.

16. Other Information

Prepared on October 20, 2004
Revised on September 1, 2015

The information contain in this Safety Data Sheet is believed to be correct but does not purport to be all inclusive. It should be used as a guide.

The information in this safety data sheet is based on the best available information to Schaefer Industries and our knowledge of the product. It does not guarantee the properties of the product. Schaefer Industries shall not be held liable for any damage resulting from handling the above product.