SECTION 1: Identification

Product identifier

Product name Bisque Alumina Ceramic
Substance name Aluminum Oxide (Porous)
Al₂O₃
Other names / synonyms Bisque Alumina Ceramic, AL 96B

Recommended use of the chemical and restrictions on use
Machining Blank for Technical Ceramic Component(s)

Supplier’s details

Name Superior Technical Ceramics
Address 600 Industrial Park Road
St. Albans, Vermont 05478
USA
Telephone 802-527-7726
Fax 802-527-1181

Emergency phone number(s)
802-527-7726

SECTION 2: Hazard identification

This product is considered an article and does not pose any health hazard under normal use. The health effects listed below may be relevant when dust is generated during machining or other processing conditions.

Classification of the substance or mixture
Not a hazardous substance or mixture.

GHS label elements, including precautionary statements
Not a hazardous substance or mixture.

Other hazards which do not result in classification
Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

Components

1. Aluminum oxide
Concentration 95%
Other names / synonyms Aluminum Oxide; Alumina
CAS no. 1344-28-1
2. Secondary Oxides
Concentration 5 %
Other names / synonyms Secondary Oxides

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice
Production poses dust or machining swarf that may cause irritation to eyes, nose, throat, and/or skin.

If inhaled
Move to fresh air and consult with local medical personnel if discomfort persists.

In case of skin contact
Wash affected area with soap and water and consult with local medical personnel if irritation persists.

In case of eye contact
Flush with tepid water for a minimum of 15 minutes and consult with local medical personnel if discomfort persists.

If swallowed
Administer water to dilute, but not if person is unconscious. Consult with local medical personnel if discomfort persists.

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Use any means suitable for extinguishing surrounding fire.

Special protective actions for fire-fighters
Use protective clothing and breathing equipment appropriate for the surrounding fire and to protect against the aluminum oxide dust that may be dispersed in the air.

SECTION 6: Accidental release measures

Methods and materials for containment and cleaning up
Any dust from machining should be wet mopped or dry vacuumed.

SECTION 7: Handling and storage

Precautions for safe handling
Any dust from machining should be wet mopped or dry vacuumed.

SECTION 8: Exposure controls/personal protection

Control parameters

1. alpha-Alumina (CAS: 1344-28-1)
PEL (Inhalation): see PNOR (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov
2. alpha-Alumina (CAS: 1344-28-1)
REL (Inhalation): See Appendix D (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

3. alpha-Alumina, Total dust (CAS: 1344-28-1)
PEL (Inhalation): 15 mg/m³ (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

4. alpha-Alumina, Total dust (CAS: 1344-28-1)
PEL (Inhalation): 10 mg/m³ (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

5. alpha-Alumina, Respirable fraction (CAS: 1344-28-1)
PEL (Inhalation): 5 mg/m³ (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

6. alpha-Alumina, Respirable fraction (CAS: 1344-28-1)
PEL (Inhalation): 5 mg/m³ (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

**Appropriate engineering controls**
Local or general exhaust ventilation recommended.

**Individual protection measures, such as personal protective equipment (PPE)**

**Eye/face protection**
Safety goggles in the presence of airborne dust.

**Skin protection**
Polymer gloves for prolonged dust exposure.

**Respiratory protection**
NIOSH/MSHA approved respirator for dust when exposure limit is exceeded.

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**SECTION 9: Physical and chemical properties**

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance/form</td>
<td>White Porous Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting point</td>
<td>&gt;1871°C (3400°F)</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash point</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
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</tr>
<tr>
<td>Upper/lower flammability limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Upper/lower explosive limits</td>
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</tr>
<tr>
<td>Vapor pressure</td>
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</tr>
<tr>
<td>Vapor density</td>
<td>N/A</td>
</tr>
<tr>
<td>Relative density</td>
<td>&gt;2.0 g/cc (can be adjusted)</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Insoluble in Water</td>
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<tr>
<td>Partition coefficient: n-octanol/water</td>
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</tr>
<tr>
<td>Auto-ignition temperature</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
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</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and reactivity

Chemical stability
Stable

SECTION 11: Toxicological information

No Applicable Information Found

SECTION 12: Ecological information

No Applicable Information Found

SECTION 13: Disposal considerations

Disposal of the product
This material is not hazardous per 40 CFR 261. Consultation with federal, state and local officials is recommended before disposal.

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

US FEDERAL

TSCA
CAS# 1344-28-1 is listed on the TSCA inventory.

SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.

Section 313
CAS# 1344-28-1 is reported under Section 313.

OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.

US STATE

CAS# 1344-28-1 can be found on the following state right to know lists:
Illinois, Minnesota, Massachusetts, New Jersey, Pennsylvania, Texas. Consult your state and local resources for further information.

California Prop 65
Substance Not Listed.

SECTION 16: Other information

Further information/disclaimer
Although reasonable care has been taken to provide accurate and current information in preparation of this document, Superior Technical Ceramics extends no warranties, makes no representation and assumes no responsibility for any loss, damage, or injury of any kind which may result from reliance of information provided in this document by any person.

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