Material Safety Data Sheet

1. Company and Product Identification

**Product name:** Single Crystal Alumina
**Chemical name:** Aluminium Oxide
**CAS NO.:** 1344-28-1
**Synonyms:** SA
**Chemical Formula:** Al₂O₃
**Supplier:** Shandong JCT ABRASIVES CO., LTD.
Room 2018, Building D, Juranzhijia, No.111 Liuquan Road, Zibo High-tech Zone, Shandong, China 255086
Tel: +86-533-3171838

2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al₂O₃%</td>
<td>95.5</td>
</tr>
<tr>
<td>Fe₂O₃%</td>
<td>0.02</td>
</tr>
<tr>
<td>SiO₂%</td>
<td>0.02</td>
</tr>
<tr>
<td>Na₂O%</td>
<td>0.09</td>
</tr>
<tr>
<td>Ti₂O%</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Suggest to use Class 2.1 / UN 1950 apply in system.

3. Hazards Identification

**Emergency Overview**

CAUTION! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

**Potential Health Effects**

- **Ingestion:** No adverse effects expected.
- **Eye Contact:** No adverse effects expected but dust may cause mechanical irritation.
- **Chronic Exposure:** No adverse effects expected.
- **Aggravation of Pre-existing Conditions:** Not expected to be a health hazard.

4. First Aid Measures

**Ingestion:**
Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

**Eye Contact:**
Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures

**Fire:**
Not considered to be a fire hazard.

**Explosion:**
Not considered to be an explosion hazard.
Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.

Special Information:
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.

6. Accidental Release Measures
Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

7. Handling and Storage
Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. The material has been fired at 2050 Celsius degree, it is no hazard under normal temperature.

8. Exposure Controls
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

9. Physical and Chemical Properties
Appearance:
Light blue granules.
Odor:
Odorless.
Solubility:
Insoluble in water.
Density:
3.7 g/cm$^3$
Melting Point:
$>2000{\degree}C$

10. Stability and Reactivity
Stability:
Stable under ordinary conditions of use and storage.
Hazardous Polymerization:
Will not occur.
Conditions to Avoid:
Incompatibles.

11. Toxicological Information
Non-Toxic and Non-Flammable

12. Ecological Information
Environmental Fate:
No information found.
Environmental Toxicity:
No information found.

13. Disposal Considerations
Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information
Not regulated.

15. Regulatory Information
Chemical Weapons Convention: No
Chronic: No
Fire: No
Pressure: No
Reactivity: No (Pure / Solid)

16. Other Information
Label Precautions:
Keep container closed.
Avoid breathing dust.

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