

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Tundish Stopper Rods, Nozzles

Chemical Name: Alumina - Graphite

Supplied by:

Ceramsource, Inc.

P.O. Box 6026

East Brunswick, NJ 08816

Tel: 800-608-5828

2. COMPOSITION AND INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Percent By Weight</u>	<u>OSH PEL</u>	<u>ACGIH TLV</u>
Aluminum Oxide (Al ₂ O ₃)	1344-28-1	60 -85	Total Respirable 15 5	Total Respirable 10
Graphite (C)	7782-42-5	15-25	2.5	2.0
Amorphous Silica (SiO ₂)*	7631-86-9	<3	80% SiO ₂	N/A

3. HAZARDS IDENTIFICATION

Potential Health Effects When Dust Is Generated

Eye contact: Dust or particles may cause irritation

Skin contact: N/A

Ingestion: N/A

Inhalation: Acute exposure to nuisance dust may result in upper respiratory irritation.

Chronic Effects: N/A

4. FIRST AID

Eye contact: Flush immediately with large amounts of water for at least 15 minutes. Do not rub eyes. Get medical help if irritation persists.

Skin contact: N/A

Ingestion: N/A

Inhalation: Remove affected individual to a dust free place. Seek medical help if irritation persists.

5. FIRE FIGHTING MEASURES

Flammable Properties: Non-flammable

Flash Point: None

Upper and Lower Flammability Limits: None

Autoignition Temperature: None

Special Fire Fighting Procedures: None

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: If dust is generated during work activity, approved respirator and safety glasses should be worn. Care should be exercised to minimize the generation of fugitive dusts when handling or machining this product.

Cleanup Measures: Dry sweeping of materials should be avoided to minimize dust emissions into the air. Settled dust and particles should be cleaned up using wet sweeping techniques or with a HEPA filtered vacuum.

7. HANDLING AND STORAGE

Handling: Handled so as not to create dust. Ceramic materials are brittle; care must be taken to prevent cracking or unsafe conditions may occur in contact with a molten metal

Storage: Keep product dry. If wet, potentially violent cracking may occur in contact with molten metal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Machining or grinding can result in dust that may contain crystalline silica (SiO₂)

Respiratory Protection: NIOSH-approved respirator is recommended if PEL's or TLV's are exceeded.

Skin and Hand Protection: Abrasive resistant gloves. Do not handle hot refractories.

Eye and Face Protection: Safety glasses with full side shields or goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black refractor solid
pH: N/A
Melting Point: >1700°C
Explosive Properties: N/A

Odor: N/A
Density: 2.6 – 2.9 g/cm³
Flash Point: N/A
Solubility: None in water

10. STABILITY AND REACTIVITY

Incompatibility: None
Conditions to Avoid: None
Hazardous polymerization: Will Not Occur
Hazardous decomposition products: May oxidize to form carbon dioxide (CO₂), and carbon monoxide (CO) when heated above 300°C, as this is a carbon-containing material

11. TOXICOLOGICAL INFORMATION

Acute toxicity: N/A
Local effects: N/A

12. ECOLOGICAL INFORMATION

No data is available on adverse effects of the material on the environment.

13. DISPOSAL CONCERNS

During removal, nuisance dust may be generated. Exposure to respirable dust should be minimized by appropriate engineering controls and personal protective equipment. Loose material should be contained to prevent airborne dust.

Can be disposed of as non-hazardous waste in accordance with local, state federal regulations.

14. TRANSPORT CONSIDERATIONS

U.S. Department of Transportation (DOT) – Not regulated as a hazardous material

15. REGULATORY INFORMATION

U.S.A Regulations (TSCA): The chemical components of this product are registered under the Toxic Substances Control Act.

Canadian Regulations (DSL): The chemical components of this product are listed on the Domestic Substance List

European Community: The chemical components of this product are listed on the EINECS inventory as follows- Aluminum oxide (215-691-6), Graphite (231-955-3), Quartz (238-878-4)

16. OTHER INFORMATION

NONE

The above information is collected and prepared with reasonable care. However, Ceramsource, Inc. makes no warranty, expressed or implied, as to the accuracy or suitability of the data herein above. Ceramsource, Inc. assumes no responsibility for any damage or injury resulting from failure to follow the procedures recommended in this MSDS of using, handling, and storing the material.