



SAFETY DATA SHEET

Alumina Ceramic

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: Alumina Ceramic (85%, 90%, 94%, 96%, 98.5%, 99.5%, 99.8%, 99.9 %) Fired

Other Names: Sintered Alumina

Product Code: Technical Ceramics Product(s)

Product type: Solid

Primary Use: Alumina Ceramics are used in a variety of general and specialized applications dependent on grade selected.

Identified Uses: Wear, corrosion, and temperature resistant products. Applications include but are not limited to the following:

- Machine and plant construction as wear protection
- Chemical industry as corrosion protection
- High temperature applications such as burner nozzles
- Support and protective tube for heat conductors or thermocouples
- Sanitary industry as a sealing element
- Electrical engineering as insulation and Electronics as a substrate

Distributor / Manufacturer:

CeraMaterials
525 Silver Lake Rd
Dingmans Ferry, PA 18328
Emergency Contact: Jerry Weinstein
Product Stewardship: 518.701.6722
E-Mail: sales@ceramaterials.com
www.ceramaterials.com

24hr Emergency Contact Info:

Poison Control Center: 877.671.4608
CHEMTREC US Transportation: 800.424.9300
CHEMTREC International Transportation: 703.741.5500

**SECTION 2 - HAZARDS IDENTIFICATION**

OSHA/HCS Status	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of substance	Not classified
GHS Label Elements	
Signal word	No signal word (non-hazardous product)
Hazard statement	No known significant effects or critical hazards
Precautionary Statements	
Prevention	Not applicable
Response	Not applicable
Storage	Not applicable
Disposal	Not applicable
Hazards not otherwise classified	None known

SECTION 3 - COMPOSITION

<u>Chemical & Common Name</u>	<u>CAS#</u>	<u>% By Weight</u>
Aluminium oxide	1344-28-1	90 - 100%
Crystalline silica, amorphous	14808-60-7	0.1 - 1%
Magnesium oxide	1309-48-4	0.1 - 1%

*Concentrations shown as a range to protect confidentiality and/or is due to batch variation. There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listing in Section 8.

SECTION 4 - FIRST AID MEASURES

Description of necessary measures, subdivided according to the different routes of exposure, i.e., inhalation, skin and eye contact, and ingestion.

Inhalation:

Remove affected personnel to an exposure-free environment and keep at rest in a position



comfortable for breathing. Get medical attention if symptoms occur.

Skin

Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.

Eyes

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Ingestion:

Wash out mouth with water. Remove individual to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most Important Symptoms / Effects, Acute & Delayed

Potential acute health effects

Inhalation	No known significant effects or critical hazards
Skin contact	No known significant effects or critical hazards
Eye contact	No known significant effects or critical hazards
Ingestion	No known significant effects or critical hazards

Over-exposure signs / symptoms

Inhalation	No known significant effects or critical hazards
Skin contact	No known significant effects or critical hazards
Eye contact	No known significant effects or critical hazards
Ingestion	No known significant effects or critical hazards

Indication of immediate medical attention and special treatment, needed if necessary

Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	No specific treatment
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. See toxicological information (Section 11).



SECTION 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	No specific fire or explosion hazard.
Hazardous thermal decomposition products	Decomposition products may include the following materials: metal oxide / oxides
Special protective actions for fire-fighters	No special measures are required.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, & Emergency Procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods & Materials for Containment & Clean Up

Spill	Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
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SECTION 7 - HANDLING AND STORAGE

Precautions For Safe Handling

Protective measures	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. See also Section 8 for additional information on hygiene measures.



Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control Parameters

Occupational exposure limits
Appropriate engineering controls

None
Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual Protection Measures

Hygiene measures

Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.



Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Table with 4 columns: Property Name, Value 1, Property Name, Value 2. Includes rows for Appearance & State, Odor, Odor threshold, pH, Melting point, Boiling point, Flash point, Evaporation rate, Flammability, LEL/UEL, Vapor pressure, Vapor density, Relative density, Water Solubility, Viscosity, Autoignition temperature, Decomposition temperature, and Partition coefficient.

SECTION 10 - STABILITY AND REACTIVITY

Table with 2 columns: Property Name, Description. Includes rows for Reactivity, Chemical Stability, Possibility of hazardous reactions, Conditions to avoid, Incompatible materials, and Hazardous decomposition products.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information On Toxicological Information

Table with 2 columns: Property Name, Description. Includes rows for Acute toxicity, Irritation / Corrosion, Sensitization, and Mutagenicity.



Carcinogenicity

Classification

Name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Aluminium Oxide	-	-	-	A4	-	-
Crystalline silica, amorphous	-	1	Known to be a human carcinogen	A2	-	+

Reproductive toxicity	There is no data available.
Teratogenicity	There is no data available.
Specific target organ toxicity (single exposure)	There is no data available.
Specific target organ toxicity (repeated exposure)	There is no data available.
Aspiration hazard	There is no data available.
Information on the likely routes of exposure	Dermal contact.

Potential Acute Health Effects

Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin Contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

Symptoms Related to the Physical, Chemical & Toxicological Characteristics

Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin Contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

Delayed & Immediate Effects & Also Chronic Effects From Short / Long Term Exposure

Short term exposure

Potential immediate effects	No known significant effects or critical hazards
Potential delayed effects	No known significant effects or critical hazards

Long term exposure

Potential immediate effects	No known significant effects or critical hazards
Potential delayed effects	No known significant effects or critical hazards

Potential chronic health effects

General	No known significant effects or critical hazards
Carcinogenicity	No known significant effects or critical hazards
Mutagenicity	No known significant effects or critical hazards
Teratogenicity	No known significant effects or critical hazards



Developmental effects No known significant effects or critical hazards
 Fertility effects No known significant effects or critical hazards

Numerical measures of toxicity

Acute toxicity estimates There is no data available.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity There is no data available.
 Persistence and degradability There is no data available.
 Bioaccumulative potential There is no data available.

Mobility in Soil

Soil/water partition coefficient (K_{oc}) There is no data available.
 Other adverse effects No known significant effects or critical hazards.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Methods:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions, and any by-products should comply with the requirements of the environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

SECTION 14 - TRANSPORT INFORMATION

	DOT	IMDG	IATA
UN Number	Not regulated	Not regulated	Not regulated
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No	No	No
Additional information	-	-	-

AERG: Not applicable.

Special precautions for user

Transport within users' premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.



SECTION 15 - REGULATORY INFORMATION

U.S Federal Regulations

TSCA 8(a) CDR Exempt/Partial exemption: Not determined.
United States inventory (TSCA 8b): All components are listed or exempt.

Clean Air Act Section 112 (b)
Hazardous Air Pollutants (HAPS) Not listed

Clean Air Act Section 602
Class I Substances Not listed.

Clean Air Act Section 602
Class II Substances Not listed.

DEA List I Chemicals
(Precursor Chemicals) Not listed.

DEA List II Chemicals
(Essential Chemicals) Not listed.

SARA 302 / 304

Composition/information on
ingredients No products were found.

SARA 304 RQ Not applicable.

SARA 311/312 Classification Not applicable.

SARA 313 There is no data available.

State Regulations

Massachusetts The following components are listed: Aluminum oxide.

New York None of the components are listed.

New Jersey The following components are listed: Aluminum oxide; Crystalline silica,
amorphous.

Pennsylvania The following components are listed: Aluminum oxide; Crystalline silica,
amorphous.

California Prop. 65 No products were found.



SECTION 16 - OTHER INFORMATION

Procedure used to derive the classification

Classification	Justification
Not classified.	-

- Effective Date:** February 15, 2017
- Revision Summary:** Company Information updated.
- Revision Date:** May 21, 2020
- SDS Prepared By:** CeraMaterials

Disclaimer

The information presented herein is presented in good faith and believed to be accurate as the effective date of this Safety Data Sheet. Employers may use this SDS to supplement other information gathered by them in their efforts to assure the health and safety of their employees and the proper use of the product. This summary of the relevant data reflects professional judgement; employers should note that information perceived to be less relevant has not been included in this SDS. Therefore, given the summary nature of this document, CeraMaterials does not extend any warranty (expressed or implied), assume any responsibility, or make any representation regarding the completeness of this information or its suitability for the purposes envisioned by the user.