

SECTION 1. IDENTIFICATION

GHS product identifier Alumina Ceramic (AD-85, AD-90, AD-94, AD-96, AD-98, AD-995, AD-996, AD-998, ADR-96, AHP-99, AP-All, FG-995, FG-98) (Fired)

Other means of identification AD-85; AD-90; AD-94; AD-96; AD-98; AD-995; AD-995; AD-996; AD-998; ADR-96; AHP-99; AP-All; FG-995; FG-98, ADS-85, ADS-96(R), ADS-995(R), ADS-96(RHR), ADS-995, ADS-996, Superstrate, AHP-99, R54, ADSR-96(R).

Product Type Solid

RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Identified uses Wear resistant, corrosion resistant, temperature resistant products.

Supplier's details CoorsTek
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Golden, CO 80401
Phone: 1-303-271-7000
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Email: CoorsTekSDS@coorstek.com
Website: www.coorstek.com

Emergency telephone number (with hours of operation) 303-271-7000
8am-5pm MDT (M-F)

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 the substance or mixture Not classified

GHS LABEL ELEMENTS

Signal word No signal word

Hazard statements 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/INFORMATION ON INGREDIENTS

Substance/mixture Mixture
Other means of identification AD-85; AD-90; AD-94; AD-96; AD-98; AD-995; AD-995; AD-996; AD-998; ADR-96; AHP-99; AP-All; FG-995; FG-98, ADS-85, ADS-96(R), ADS-995(R), ADS-96(RHR), ADS-995, ADS-996, Superstrate, AHP-99, R54, ADSR-96(R)

CAS NUMBER/OTHER IDENTIFIERS

CAS number Not applicable
Product code Not available

INGREDIENT NAME	%	CAS NUMBER
Aluminium oxide	90 - 100	1344-28-1
Crystalline silica, amorphous	0.1 - 1	14808-60-7
Magnesium oxide	0.1 - 1	1309-48-4

Any concentration shown as a range is to protect confidentiality 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 health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

DESCRIPTION OF NECESSARY FIRST AID MEASURES

Eye contact 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.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

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

Ingestion Wash out mouth with water. Remove victim 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.

SECTION 4. FIRST AID MEASURES, CONTINUED

**MOST IMPORTANT SYMPTOMS/EFFECTS,
ACUTE AND DELAYED**

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

Over-exposure signs/symptoms

- 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

**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, AND 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 AND MATERIALS FOR CONTAINMENT AND CLEANING 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.

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/PERSONAL PROTECTION

CONTROL PARAMETERS

- Occupational exposure limits** None
- Appropriate engineering controls** 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
APPEARANCE

Physical state	Solid
Color	White
Odor	None
Odor threshold	Not applicable
pH	Not applicable
Melting point	>1700°C (>3092°F)
Boiling point	>2200°C (>3992°F)
Flash point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not available
Lower and upper explosive (flammable) limits	Not applicable
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	3.7
Solubility	Negligible solubility in water
Partition coefficient: noctanol/water	Not applicable
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	No specific test data related to reactivity is available for this product or its ingredients.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	No specific data
Incompatible materials	None known
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

- Acute toxicity** There is no data available.
- Irritation/Corrosion** There is no data available.
- Sensitization** There is no data available.
- Mutagenicity** There is no data available.

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 AND 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

SECTION 11. TOXICOLOGICAL INFORMATION, CONTINUED

DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND 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 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 exempted.

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

Clean Air Act Section 602 Class I Substances Not listed

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 exempted.

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: Aluminium oxide

New York None of the components are listed.

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

Pennsylvania The following components are listed: Aluminium 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.

HISTORY

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Prepared by KMK Regulatory Services Inc.

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