

SAFETY DATA SHEET

Product: 586
Revision Date: 6/01/2015

1. MATERIAL IDENTIFICATION

Product Name: Ceramacast 586
Product Description: Off-White Odorless Powder
Product Use: High Temperature Ceramic Potting Compound
Manufacturer: Aremco Products, Inc.
707-B Executive Blvd.
Valley Cottage, NY 10989
Telephone: 845-268-0039
Emergency Phone: 845-268-0039 or Infotrac (24/7) 800-535-5053

2. HAZARDS IDENTIFICATION

GHS Classification:

Eye Irritation Category 2A
Skin Irritation Category 2
Carcinogenicity Category 1A
STOT RE, Respiratory Category 2

GHS Symbol:



GHS Signal Word:

Danger

GHS Hazard Determining Components:

Zirconium Silicate
Magnesium Oxide
Magnesium Phosphate

GHS Hazard Statements for Health Hazards:

H303 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H350 May Cause Cancer by Inhalation
H373 STOT RE, Respiratory

GHS Precautionary Statements - Prevention:

P260 Do not breath dust
P264 Wash hands thoroughly after handling
P270 Do not eat or drink when using this product.
P280 Wear protective gloves. Wear eye protection.
P284 Wear respiratory protection

GHS Precautionary Statements - Response:

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in position comfortable for breathing.
P312 Call a POISON CENTER or doctor if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Remove contact lenses, if present and easy to do. Rinse cautiously with water for several minutes.
P362 Take off contaminated clothing and wash before reuse.

3. COMPOSITION

Chemical	CAS No.	EC No.	Concentration	GHS Product Identifier
Zirconium Silicate	14940-68-2	239-019-6	60.0-80.0%	H315 Skin Irritation, Cat 2 H320 Eye Irritation, Cat 2B H350 May Cause Cancer by Inhalation, Cat 1A H373 STOT RE, Respiratory, Cat 2
Magnesium Oxide	1309-48-4	215-171-9	10.0-20.0 %	None
Magnesium Phosphate Mono Basic	13092-66-5	236-004-6	5.0-15.0%	None

Note

Zirconium Silicate contains traces of crystalline silica and 0.0028-0.028% Uranium and 0.0085-0.015% Thorium, which exists in complex mineralogical phase within zircon.

4. FIRST AID MEASURES

Eye Exposure:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist. If a physician is not immediately available, eye irrigation should be continued for an additional 15 minutes.

Skin Exposure:

Immediately wipe excess material off skin with a dry cloth then wash with plenty of soap and water for at least 5 minutes. See medical attention if irritation develops or persists. Remove contaminated clothing and shoes and clean thoroughly before re-use.

Inhalation:

Remove from immediate source of exposure and assure that victim is breathing. If not breathing, administer cardio-pulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. Seek medical attention.

Ingestion:

If swallowed, do not induce vomiting. If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention immediately. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

Medical Conditions Possibly Aggravated by Exposure:

Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

5. FIRE FIGHTING MEASURES

Flash Point: Not applicable.
Flammable Limits: This material is non-combustible.
Extinguishing Media: Not applicable.
Special Fire Fighting Procedures: Not applicable.
Unusual Fire and Explosion Hazards: This material is non-combustible.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection: Wear goggles, protective clothing, chemical resistant gloves, and rubber boots. Use NIOSH approved respirator to prevent inhalation of dust.
Spill Cleanup: Collect material with precaution against breathing dust and dispose in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills.
Storage: Store in an area that is cool, dry, and well ventilated. Keep containers closed. Store in clean plastic or metal containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical	CAS No.	EC No.	TLV (mg/m ³)	PEL (mg/m ³)
Magnesium Oxide	1309-48-4	215-171-9	10	15
Magnesium Phosphate Mono Basic	13092-66-5	236-004-6	10	15
Zirconium Silicate	14940-68-2	239-019-6	5	5

Engineering Controls:	Use with adequate ventilation; mechanical dust collector is recommended. Keep containers closed. Safety shower and eyewash fountain should be within direct access.
Respiratory Protection:	If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self-contained NIOSH-approved dust respirator is recommended.
Skin Protection:	Wear protective clothing and gloves.
Eye Protection:	Wear chemical goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical here represent typical properties of this product. Contact Technical Sales for exact specifications.

Appearance:	Powder
Color:	Off-White
Odor:	Odorless
Specific Gravity, g/cc	2.60-2.70 (Post-Cure)
Water Solubility:	~10%
Melting Point:	Not available
Boiling Point:	Not applicable
Vapor Pressure:	Not applicable
Vapor Density (air=1):	Not applicable

10. STABILITY AND REACTIVITY

Chemical Stability:	This material is stable under all conditions of use and storage.
Conditions to Avoid:	Keep exposure to dust levels below TLV. Avoid rapid heating of the cement that may cause spalling or eruption due to vaporization of water.
Materials to Avoid:	BrCL3 and BrF3.
Hazardous Decomposition Products:	None.
Hazardous Polymerization:	Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: **Component: CAS No. 14940-68-2, Zirconium Silicate**
No Data

Chronic Toxicity: Zircon contains naturally occurring radioactive materials (NORM) in the uranium and thorium series, in equilibrium, at typical specific activities of 0.3 to 0.7 Bq/g thorium (85-165 ppm) and 0.3 to 3.5 Bq/g uranium (28-281 ppm). Zircon is exempt from Nuclear Regulatory Commission (NRC) regulations for source material per 10 CFR 40, since it falls under the definition of "unimportant quantity source material" containing less than 0.05% uranium or thorium. The main radiological hazard from the product is internal exposure from small amounts of alpha particles given off by inhaled dust. Industrial hygiene practices aimed at control of airborne dust can lessen the potential for exposure. Overexposure by inhalation to inhaled dusts containing radioactive uranium or thorium may cause lung cancer. Low level gamma radiation in proximity to bulk stockpiles of zircon may present a lesser, external exposure that can be managed by limiting close proximity for long time periods to large volumes of material. IARC and NTP do not list Zircon as a carcinogen.

This product contains < 0.5% crystalline silica; once inhaled, cristobalite can remain in the lungs causing scarring, stiffening and difficulty breathing. The most common type of silicosis develops following repeated inhalation over time. Repeated inhalation of crystalline silica can also increase the risks of developing respiratory cancer. Avoid dust creation. Do not inhale dusts from this product. Do not use compressed air or dry sweeping to remove dusts from the work area. Use wet clean-up methods to remove dusts. IARC and NTP classify respirable crystalline silica as a confirmed or known human carcinogen. Although OSHA has not promulgated a specific standard for crystalline silica, materials that contain >= 0.1% crystalline silica should be treated as a confirmed carcinogen for hazard communication purposes.

Acute silicosis has been reported for exposure to extremely high crystalline silica concentrations particularly when the particle size of the dust is very small. Acute silicosis is rapidly progressive with diffuse pulmonary involvement and does not form classical silicotic nodules. The disease is often complicated by tuberculosis and

can develop only months after the initial exposure with the possibility of death within 1 or 2 years. This product contains < 0.50% crystalline silica. Acute silicosis may not occur at the concentrations present.

Silica particles <10 microns are considered respirable; however, particles retained in the lungs are generally much smaller. Silica particles retained in the human lung have median diameters of 0.5-0.7 microns.

Classic silicosis is characterized by the formation of scattered silica containing nodules of scar tissue in the lungs ranging in size from microscopic to greater than 1 cm. Simple silicosis (nodules < 1 cm) is generally asymptomatic but may progress to debilitating complicated silicosis (nodules > 1 cm) with or without continued exposure. Historically, workers who developed silicosis had greatly increased risks of developing an accompanying tuberculosis infection (silicotuberculosis).

IARC has found inadequate evidence to link exposure to amorphous silica to cancer in animals. Limited data is available concerning the health effects of fused silica in animals or humans; however, animal studies indicate a fibrogenic potential less than that of quartz. IARC has found inadequate evidence to link exposure to amorphous silica to cancer in animals.

Overexposure by inhalation to inhaled dusts containing radioactive uranium or thorium may cause lung cancer. Low level gamma radiation in proximity to bulk stockpiles of zircon may present a lesser, external exposure that can be managed by limiting close proximity for long time periods to large volumes of material. IARC and NTP do not list Zircon as a carcinogen.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not tested
Environmental Fate: Not tested
Physical/Chemical: Sinks and mixes with water.

13. DISPOSAL CONSIDERATIONS

Disposal Method: Dispose in accordance with federal, state and local rules, regulations and laws.

14. TRANSPORTATION INFORMATION

DOT UN Status: The material is not a regulated hazardous material for transportation.

15. REGULATORY INFORMATION

U.S. Federal Regulations

CERCLA: No CERCLA reportable quantity has been established for this material.

TSCA: All ingredients of this material are listed on the TSCA inventory.

SARA Title III



Sections 302, 304, 313: This product does not contain any substances reportable under these sections.

Sections 311, 312:

<u>Hazard Classes</u>	<u>Yes/No</u>
Fire Hazard	No
Reactivity Hazard	No
Pressure Hazard	No
Immediate Hazard	Yes
Delayed Hazard	No

<u>International Inventory</u>	<u>Status</u>
Canada (DSL)	Yes
Europe (EINECS/ELINCS)	Yes
Australia (AICS)	Yes
Japan (MITI)	Yes
South Korea (KECL)	Yes

16. OTHER INFORMATION

NFPA Ratings (scale 0 – 4)	Health, 1 Flammability, 0 Reactivity, 0 Personal Protection, F	
HMIS Ratings (scale 0 – 4)	Health, 1 Flammability, 0 Reactivity, 0 Personal Protection, F	

Key Legend Information

ACGIH	American Conference of Governmental Industrial Hygienists
ARD	International Agency for Research on Cancer
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
DSL	Domestic Substance List
HMIS	Hazardous Materials Identification System
ND	Not Determined
NE	Not Established
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments & Reauthorization Act
SARA Title III	Emergency Planning & Community Right to Know Act
SARA Section 302	Extremely Hazardous Substances
SARA Section 304	Emergency Release
SARA Section 311	MSDS/List of Chemicals & Hazardous Inventory
SARA Section 312	Emergency & Hazardous Inventory
SARA Section 313	Toxic Chemicals & Release Reporting
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average

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