

SAFETY DATA SHEET

Following Regulation 1910.1200

SDS Number: 205 Date of first issue: 01 May 1987 Date of last revision: 02 October 2019

1 - Identification of product

a - Product identifier used on the label

Tradenames: Cerwool Rigidizer, Hearth Binder, Kaowool Rigidizer, Super Rigidizer,

b - Other means of identification

AMORPHOUS SILICA PRODUCT

c - Recommended use of the chemical and restrictions on use

High temperature insulation coating

d - Name, address, and telephone number

Morgan Advanced Materials

P. O. Box 923; Dept. 300
Augusta, GA 30903-0923
Telephone: 706-796-4200

e - Emergency Phone Number

For Product Stewardship and Emergency Information:

Hotline - 1-800-722-5681

Fax - 706-560-4054

For additional SDSs and to confirm this is the most current SDS for the product, visit our web page www.morganthermalceramics.com or send a request to MT.NorthAmerica@morganplc.com

2 - Hazard Identification

a - Classification of the chemical in accordance with paragraph (d) of §1910.1200

Under OSHA HCS 2012, this product is classified as Category 2 skin & eyes irritant.

b - Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200

Hazard Pictograms



Hazard Statements

Causes mild skin irritation

Causes eye irritation

May cause respiratory irritation

May cause temporary irritation to exposed eyes, skin or respiratory tract.

Precaution Statements

Do not handle until all safety instructions have been read and understood.

Wear protective gloves, protective clothing, eye protection, and face protection.

If concerned about exposure, get medical advice

Dispose of waste in accordance with local, state and federal regulations.

Emergency Overview

Dust/mist generated from this product may aggravate existing chronic lung conditions such as bronchitis, emphysema and asthma.

c - Describe any hazards not otherwise classified that have been identified during the classification process

d - Mixture Rule

Not applicable.

3 - Composition / Information On Ingredients

a - Composition table

<u>COMPONENTS</u>	<u>CAS NUMBER</u>	<u>% BY WEIGHT</u>
Silica, Amorphous	7631-86-9	22 - 45
Propylene Glycol	57-55-6	0 - 9
Water	7732-18-5	50 - 85

b - Common Name

(See Section 8 "Exposure Controls / Personal Protection" for exposure guidelines)

d - Impurities and Stabilizing Additives

Not applicable.

4 - First-Aid measures

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

Eyes

In case of eye contact flush abundantly with water; have eye bath available. Do not rub eyes.

Skin

This compound is not likely to be hazardous by skin contact, but washing the skin with soap and water after use is advisable.

Respiratory Tract

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. If respiration or pulse has stopped, have a trained person administer Basic Life Support (Cardio-Pulmonary Resuscitation/Automatic External Defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY.

Gastrointestinal

No specific intervention is indicated as the compound is not likely to be hazardous by ingestion. However, if symptoms occur, consult a physician.

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

5 - Fire-fighting measures

a - Suitable (and unsuitable) extinguishing media and

Use extinguishing media suitable for type of surrounding fire

c - Special Protective Equipment and Precautions for Firefighters

b - Specific hazards arising from the chemical (e.g., nature of any hazardous combustion products):

None

6 - Accidental Release Measures

a - Personal precautions, protective equipment, and emergency procedures

Collect as much as possible in a clean container for reuse or disposal.

b - Methods and materials for containment and cleaning up

Take up with liquid-absorbing material (eg. sand, wood dust). Wash spillage site thoroughly with soap and water or detergent solution. Dispose of according to Federal, State and local government regulations.

7 - Handling and storage

a - Precautions for safe handling

Follow all SDS/label precautions.

b - Conditions for safe storage, including any incompatibilities

Store in original factory container in a dry area. Keep container closed when not in use. Store at temperatures above 35°F to avoid irreversible precipitation of silica.

c - empty containers

Product packaging may contain residue. Do not reuse.

a - OSHA permissible exposure limit (PEL), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available

EXPOSURE GUIDELINES			
MAJOR COMPONENT	OSHA PEL	ACGIH TLV	MANUFACTURER'S REG
Silica, Amorphous	(80 mg/m ³ ÷ % of SiO ₂) or 20 mppcf	10 mg/m ³	NONE
OTHER OCCUPATIONAL EXPOSURE LEVELS (OEL)			
Ontario Canada OEL – Proplene Glycol = 50 ppm, or 155 mg/m ³ (Vapor) ,or 10 mg/m ³ (Aerosol). Industrial hygiene standards and occupational exposure limits vary between countries and local jurisdictions. Check which exposure levels apply to your facility and comply with local regulations. If no regulatory dust or other standards apply, a qualified industrial hygienist can assist with a specific workplace evaluation including recommendations for respiratory protection.			

b - Appropriate Engineering Controls

Use sufficient ventilation to keep employee exposure below recommended limits.

c - Individual protection measures, such as personal protective equipment

PPE - Skin

Have available and wear as appropriate: chemical splash goggles and rubber gloves.

PPE - Eye

Goggles/safety glasses with sideshields should be worn.

PPE – Respiratory

When it is not possible or feasible to reduce airborne particulate, dust or vapor/mist levels below the PEL or REG through engineering controls, or until they are installed, employees are encouraged to use good work practices together with respiratory protection. Use NIOSH/MSHA approved particulate respirators, in compliance with OSHA Respiratory Protection Standard 29 CFR 1910.134 and 29 CFR 1926.103.

9 - Physical and chemical properties

a - Appearance	Clear to opalescent, no odor
b -Odor	Not applicable
c - Odor Threshold	Not applicable
e- pH	8.0 - 10.5
d - Melting Point	Same as water
f- Initial Boiling Point/Range	Not applicable
g- Flashpoint	Not applicable
h - Evaporation Rate	Not applicable
i - Flammability	Not applicable
j - Upper/Lower Flammability or Explosive Limits	Not applicable
k - VAPOR PRESSURE	Same as water
l - VAPOR DENSITY	Same as water
m - Solubility	100%
n - Relative Density	1.1 - 1.4
o - Partition Coefficient: n-Octanol/water	Not applicable
p - Auto-ignition temperature	Not applicable
q - Decomposition Temperature	Not applicable
r - Viscosity	Not applicable

10 - Stability and Reactivity

a - Reactivity

None.

b - Chemical Stability

Stable under conditions of normal use.

c - Possibility of Hazardous Reaction

None

d - Conditions to Avoid

Freezing. Product may be unstable if frozen.

e - Incompatible Materials

No known hazardous incompatibility, except with materials that react with water.

f - Hazardous decomposition products

No known hazardous decomposition

11 - Toxicological information

a - TOXICOKINETICS, METABOLISM AND DISTRIBUTION

Not available.

b - Acute Toxicity

c - Epidemiology

d - Toxicology

Silica, amorphous:

Toxic effects described in animals from single inhalation exposures of amorphous silica include upper respiratory irritation, lung congestion, bronchitis, and emphysema. Repeated inhalation exposures at concentration of 50 or 150 mg/m³ produced increased lung weights and lung changes. No progressive pulmonary fibrosis was seen and the observed lung changes were reversible. No adverse effects were observed in this study at 10 mg/m³. No animal test reports are available to define the carcinogenic, mutagenic, or reproductive effects.

Ethylene glycol:

Ethylene glycol is a mild skin and eye irritant, and is untested for animal sensitization. Toxic effects described from exposures by ingestion include kidney effects with oxalate crystal deposition and liver damage. By the inhalation route, lung changes and irritation of mucosal surfaces occurred in rats. A slight effect on reproduction was seen in mice administered 2,000 mg/kg/day in their drinking water. In studies with pregnant animals that very high doses of ethylene glycol were administered, fetal and maternal toxicity were observed.

Overexposure by skin or eye contact may include skin irritation with discomfort or rash or eye irritation. Extensive and prolonged skin contact with ethylene glycol can result in absorption of toxic amounts. Overexposure to the product by inhalation may cause lung irritation or nonspecific discomfort such as nausea, headache, or weakness. By ingestion, ethylene glycol may cause severe, possibly irreversible, injury to the kidneys, acidosis, and reduce urine volume. Individuals with pre-existing disease of the lungs, or the kidneys may have increased susceptibility to the toxicity of excessive exposure.

To obtain more epidemiology or toxicology information, please call the toll free telephone number for the Thermal Ceramics Product Stewardship Program found in Section 16 - Other Information.

International Agency for Research on Cancer and National Toxicology Program

Not applicable.

12 - Ecological information

a - Ecotoxicity (aquatic and terrestrial, where available)

No data available.

c - Bioaccumulative potential

No information for the product.

d - Mobility in soil

No information for the product.

e - Other adverse effects (such as hazardous to the ozone layer)

No adverse effects of this material on the environment are anticipated.

13 - Disposal Considerations

Waste Management and Disposal

Comply with federal, state and local regulations

Additional information

This product, as manufactured, is not classified as a listed or characteristic hazardous waste according to U. S. Federal regulations (40 CFR 261). Any processing, use, alteration or chemical additions to the product, as purchased, may alter the disposal requirements. Under U. S. Federal regulations, it is the waste generator's responsibility to properly characterize a waste material, to determine if it is a "hazardous" waste. Check local, regional, state or provincial regulations to identify all applicable disposal requirements.

14 - Transport information

a - UN number.

Hazard Class: Not Regulated United Nations (UN) Number: Not Applicable
Labels: Not Applicable North America (NA) Number: Not Applicable
Placards: Not Applicable Bill of Lading: Product Name

b - UN proper shipping name

Not applicable.

c - Transport hazard class(es)

Not applicable.

d - Packing group, if applicable

Not applicable.

e - Environmental hazards (e.g., Marine pollutant (Yes/No))

No.

f - Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

Not regulated.

g - Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Not applicable.

International

15 - Regulatory information

15.1 - United States Regulations

UNITED STATES REGULATIONS

SARA Title III: Sections 311 and 312 apply.

OSHA: Comply with Hazard Communication Standards 29 CFR 1910.1200 and 29 CFR 1926.59 and Respiratory Protection Standards 29 CFR 1910.134 and 29 CFR 1926.103. Components of this product are considered to be hazardous as defined by the OSHA Hazard Communication Standard.

TSCA: All substances contained in this product are listed in the TSCA Chemical Inventory [Section 8(b)].

15.2 - International Regulations

INTERNATIONAL REGULATIONS

Canadian WHMIS: Not a WHMIS controlled product.

Canadian EPA: All substances in this product are listed, as required, on the Domestic Substance List (DSL).

initial statement

Precautionary Measures to be Taken After Service and Upon Removal: Amorphous silica may transform to crystalline silica when subjected to temperatures exceeding 1800° F.

Users should observe good industrial hygiene and work practices to reduce employees' exposure when handling after service products.

Devitrification

Precautionary Measures to be Taken After Service and Upon Removal: Amorphous silica may transform to crystalline silica when subjected to temperatures exceeding 1800° F.

Users should observe good industrial hygiene and work practices to reduce employees' exposure when handling after service products.

Product Stewardship Program**HMIS HAZARD RATING**

HMIS Acute Health: 1

HMIS Flammable: 0

HMIS Reactivity: 0

HMIS Personal Protective: None

TECHNICAL DATA SHEETS

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Revision Summary

sections 3 and 8 updated

MSDS prepared by

SDS Prepared By: MORGAN THERMAL CERAMICS ENVIRONMENTAL, HEALTH & SAFETY DEPARTMENT

Disclaimer

The information presented herein is presented in good faith and believed to be accurate as of 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 judgment; 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, Morgan Thermal Ceramics 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.