



SAFETY DATA SHEET

Following Regulation 1910.1200

SDS Number: 160 Date of first issue: 27 January 2015 Date of last revision: 21 February 2022

1 - Identification of product

a - Product identifier used on the label

Tradenames: FireMaster MicroWrap, Kaoseal AHR Blue

b - Other means of identification

Silicic acid, lithium salt, 23% solution in water

c - Recommended use of the chemical and restrictions on use

Liquid coating for refractories

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

Because of high PH closer to the threshold guideline set by the Appendix A of US OSHA Hazard Communication Standard (29CFR 1910.1200), we have classified this product as category 2 skin and 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

Clear to opalescent, colorless, odorless, liquid. Causes moderate eye irritation, moderate skin irritation, and digestive tract irritation. Spray mist causes irritation to respiratory tract. Due to high pH of product, release into surface water is harmful to aquatic life. Noncombustible. Spills are slippery. Reacts with acids, ammonium salts, reactive metals and some organics.

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

COMPONENTS	CAS NUMBER	% BY WEIGHT
Water	7732-18-5	65-80
Silicic acid, lithium salt	Proprietary	20-35

b - Common Name

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

d - Impurities and Stabilizing Additives

None.

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 contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention.

Respiratory Tract

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Gastrointestinal

If swallowed, DO NOT induce vomiting. Get medical attention immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

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

5 - Fire-fighting measures

a - Suitable (and unsuitable) extinguishing media and

c - Special Protective Equipment and Precautions for Firefighters

Extinguishing Media: This material is compatible with all extinguishing media.

Hazards to fire-fighters: See Section 3 for information on hazards when this material is present in the area of a fire.

Fire-fighting equipment: The following protective equipment for fire fighters is recommended when this material is present in the area of a fire: chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots.

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

6 - Accidental Release Measures

a - Personal precautions, protective equipment, and emergency procedures

Personal protection: Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. See section 8.

Environmental Hazards: Sinks and mixes with water. High pH of this material is harmful to aquatic life, see Section 12. Only water will evaporate from a spill of this material.

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

Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Keep container closed. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills.

b - Conditions for safe storage, including any incompatibilities

Keep containers closed. Store in clean plastic containers. Separate from acids, reactive metals, and ammonium salts. Keep from freezing. Recommended storage temperature 15°-60° C (59°-140° F). Do not store in aluminum, steel, fiberglass, copper, brass, zinc or galvanized containers.

c - empty containers

Product packaging may contain residue. Do not reuse.

8 - Risk Management Measures / Exposures Controls / Personal Protection

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

There is no applicable OSHA PEL ACGIH TLV and OEL for this material.

b - Appropriate Engineering Controls

Use with adequate ventilation. Keep containers closed. Safety shower and eyewash fountain should be within direct access.

c - Individual protection measures, such as personal protective equipment

PPE - Skin

Skin protection: Wear body-covering protective clothing and gloves.

PPE - Eye

Eye protection: Wear chemical goggles.

PPE - Respiratory

Respiratory protection: Use a NIOSH-approved dust and mist respirator where spray mist occurs. Observe OSHA regulations for respirator use (29 C.F.R. §1910.134).

9 - Physical and chemical properties

a - Appearance	Liquid, clear to opalescent white.
b - Odor	Odorless or musty odor
c - Odor Threshold	Not applicable
e - pH	Approximately 10.8.
d - Melting Point	Not applicable
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	Not applicable
l - VAPOR DENSITY	Not applicable
m - Solubility	Not applicable
n - Relative Density	1.2 g/cm ³ (20°C); 25° Bé; 10.0 lbs/gal
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

b - Chemical Stability

This material is stable under all conditions of use and storage.

c - Possibility of Hazardous Reaction

d - Conditions to Avoid

None.

e - Incompatible Materials

Gels and generates heat when mixed with acid. Absorbs carbon dioxide on exposure to air. May react with ammonium salts resulting in evolution of ammonia gas. Flammable hydrogen gas may be produced on contact with aluminum, tin, lead, and zinc.

f - Hazardous decomposition products

Hydrogen.

11 - Toxicological information

a - TOXICOKINETICS, METABOLISM AND DISTRIBUTION

b - Acute Toxicity

When tested for primary irritation potential, a similar material caused moderate irritation to the eyes and moderate irritation to the skin.

c - Epidemiology

Subchronic Data: Repeated ingestion or ingestion of large doses of soluble lithium compounds is reported to cause temporary mental function impairment.

Special Studies: Repeated ingestion or ingestion of large doses of soluble lithium compounds during pregnancy is reported to cause fetal abnormalities. Frequent ingestion over extended periods of time of gram quantities of silicates is associated with the formation kidney stones and other siliceous urinary calculi in humans. Lithium silicate is not listed by IARC, NTP or OSHA as a carcinogen.

d - Toxicology

International Agency for Research on Cancer and National Toxicology Program

12 - Ecological information

This product has not been tested for ecotoxicity potential.

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

Disposed material is not a hazardous waste.

Dispose in accordance with federal, state and local regulations and permits.

Additional information

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)

This material is not regulated hazardous material for transportation.

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

CERCLA: No CERCLA Reportable Quantity has been established for this material.

SARA TITLE III: Not an Extremely Hazardous Substance under §302. Not a Toxic Chemical under §313. Hazard Categories under §§311/312: Acute

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

15.2 - International Regulations

16 - Other Information

initial statement

Devitrification

Product Stewardship Program

HMIS HAZARD RATING

TECHNICAL DATA SHEETS

Revision Summary

Revision date updated.

MSDS prepared by

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

Disclaimer

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