SAFETY DATA SHEET

Following Regulation 1910.1200

SDS Number: 702 Date of first issue: 29 August 2018 Date of last revision: 21 February 2022

1 - Identification of product

a - Product identifier used on the label

Tradenames: Blakite

b - Other means of identification

BINDER ADHESIVE

c - Recommended use of the chemical and restrictions on use

High Temperature Thermal Insulation

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

Exposure to mist or vapor from this product may cause skin, eyes and respiratory tract irritation.

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
Anorthite	Not applicable	30-70
Sodium Silicate M.R. >3.2	1344-09-8	20-30
Clay	999999-99-4	5-40
Crystalline Silica	14808-60-7 or 13364-	Trace
Alumina	461	0-20
Other Surfactant and	7732-18-5	<3
starch	Not applicable	

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

Skin

Wash with soap and water. If symptoms develop and persist, get medical attention.

Respiratory Tract

Remove affected person to dust free location. See Section 8 for additional measures to reduce or eliminate exposure.

Gastrointestinal

Do not induce vomiting; drink plenty of water.

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

NFPA Codes: Flammability: 0 Health: 1 Reactivity: 0 Special: 0

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

Small Quantities (less than 100 gall.): Mop up and flush to sewer with plenty of water.
Large Quantities (over 100 gall.): Isolate, dike and store discharged material, if possible. Otherwise disperse and flush with water. Observe environmental protection regulations.

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

Do not get in eyes, on skin, or on clothing. Avoid breathing aerosol mist. Wash thoroughly after handling.

b - Conditions for safe storage, including any incompatibilities

Store in a tightly closed container in a cool, dry, well ventilated area.

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

EXPOSURE GUIDELINES			
MAJOR COMPONENT	***OSHA PEL***	***ACGIH TLV***	***MANUFACTURER'S REG***
Sodium Silicate	Not Established	Not Established*	2 mg/m^3(ceiling)
*Sodium Silicate Liquid Siliceous (all grades): 2 mg/m^3 (Ceiling (as NaOH), Occupational Exposure Limit based on data from manufacturer).			
OTHER OCCUPATIONAL EXPOSURE LEVELS (OEL): 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

Review your applications in order to identify potential sources of dust exposure. If necessary, conduct personal air monitoring. Use technical and/or organizational means to comply with regulations.

c - Individual protection measures, such as personal protective equipment

PPE - Skin

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

PPE - Eye

Wear goggles/safety glasses with sideshields

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	Dark grey pasty liquid
b -Odor	No odor
c - Odor Threshold	Not applicable
e- pH	Approximately 10.8.
d - Melting Point	>2300'F
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	Slight
n - Relative Density	>1
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

Not determined

b - Chemical Stability

Stable under conditions of normal use.

c - Possibility of Hazardous Reaction

Will not occur.

d - Conditions to Avoid

Avoid contact with strong acids

e - Incompatible Materials

Avoid contact with strong acids

f - Hazardous decomposition products

11 - Toxicological information

a - TOXICOKINETICS, METABOLISM AND DISTRIBUTION

Not available.

b - Acute Toxicity

Sodium Silicate:
Oral Rat LD50: 1960 mg/kg
Skin Rabbit LD50: >4640 mg/kg
Standard Draize Test: Skin Rabbit - 500 mg / 24 Hr severe; Eye Rabbit – 10 mg / 24 Hr severe.

c - Epidemiology

d - Toxicology

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.When tested for primary eye irritation potential according to OECD Guidelines, Section 405, this material produced corneal, iridal and conjunctival irritation.

Some eye irritation was still present 14 days after treatment, although the average primary irritation score had declined from 19.7 after 1 day to 4.0 after 14 days.When tested for primary skin irritation potential, this material produced irritation with a primary irritation index of 3 to abraded skin and 0 to intact skin. Human experience confirms that irritation occurs when this material gets on clothes at the collar, cuffs or other areas where abrasion may occur.

The acute oral toxicity of this product has not been tested. When sodium silicates were tested on a 100% solids basis, their single dose acute oral LD50 in rats ranged from 1500 mg/kg to 3200 mg/kg. The acute oral lethality resulted from nonspecific causes. This product contains approximately 37.5% sodium silicate.

Subchronic Data: In a study of rats fed sodium silicate in drinking water for three months, at 200, 600 and 1800 ppm, changes were reported in the blood chemistry of some animals, but no specific changes to the organs of the animals due to sodium silicate administration were observed in any of the dosage groups. Another study reported adverse effects to the kidneys of dogs fed sodium silicate in their diet at 2.4g/kg/day for 4 weeks, whereas rats fed the same dosage did not develop any treatment-related effects. Decreased numbers of births and survival to weaning was reported for rats fed sodium silicate in their drinking water at 600 and 1200 ppm.

International Agency for Research on Cancer and National Toxicology Program

Not applicable.

12 - Ecological information

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

To prevent waste materials from becoming airborne during waste storage, transportation and disposal, a covered container or plastic bagging is recommended. 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

INTERNATIONAL
Canadian TDG Hazard Class & PIN: Not regulated
Not classified as dangerous goods under ADR (road), RID (train), IATA (air) or IMDG (ship).

15 - Regulatory information

15.1 - United States Regulations

UNITED STATES REGULATIONS
SARA Title III: This product does not contain any substances reportable under Sections 302, 304, 313 (40 CFR 372). 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 applicable
Canadian EPA: All substances in this product are listed, as required, on the Domestic Substance List (DSL).

16 - Other Information

initial statement

Devitrification

Product Stewardship Program

Morgan Thermal Ceramics www.morganthermalceramics.com

HMIS HAZARD RATING

TECHNICAL DATA SHEETS

Revision Summary

1st Edition of SDS

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.