

SAFETY DATA SHEET

Following Regulation 1910.1200

SDS Number: 162 Date of first issue: 27 November 2019 Date of last revision: 21 February 2022

1 - Identification of product

a - Product identifier used on the label

Tradenames: EST Guard

b - Other means of identification

- c Recommended use of the chemical and restrictions on use
- 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

Not classified. Read the entire safety data sheet.

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

Not classifiable according to OSHA HCS 2012 (29CFR1910.1200).

Emergency Overview

These products are classified as articles by OSHA (Standard 1910.1200). No health effects are anticipated from the use of these products.

- 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>	CAS NUMBER	% BY WEIGHT
Aluminum Oxide	1344-28-1 or 21645-51-5	Up to 100
Proprietary binder	NA NA	0-10

b - Common Name

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

d - Impurities and Stabilizing Additives

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 affected area gently with soap and water. Skin cream or lotion after washing may be helpful.

Respiratory Tract

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

Gastrointestinal

No first aid should be needed

 $\ensuremath{\text{c}}$ - 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

Flammability: 0 Health: 0 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

Wear appropriate personal protective equipment as described in Section 8.

b - Methods and materials for containment and cleaning up

Pick up large pieces and use a vacuum cleaner. If brushes are used, ensure that the area is wetted down first. Do not use compressed air for clean up. Do not allow to become windblown.

7 - Handling and storage

a - Precautions for safe handling

Follow all SDS/label precautions.

b - Conditions for safe storage, including any incompatibilities

This product is stable under all conditions of storage. Store in original factory container in a dry area. Keep container closed when not in use. Do not reuse the container.

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 sufficient ventilation to keep employee exposure below recommended limits.

c - Individual protection measures, such as personal protective equipment

PPE - Skin

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

PPE - Eye

As necessary, wear goggles or safety glasses with side shields.

PPE - Respiratory

When it is not possible or feasible to reduce respirable dust exposures through engineering controls, employees are encouraged to use good work practices together with respiratory protection. Comply with OSHA Respiratory Protection Standards, 29 CFR 1910.134 and 29 CFR 1926.103, for the particular hazard or airborne concentrations to be encountered in the work environment. For the most current information on respirator selection, contact your supplier.

9 - Physical and chemical properties

a - Appearance Tannish brown odorless solid material

b -OdorNot applicablec - Odor ThresholdNot applicablee- pHNot applicabled - Melting PointNot determined

 d - Melting Point
 Not determined

 f- Initial Boiling Point/Range
 Not applicable

 g- Flashpoint
 Not applicable

 h - Evaporation Rate
 Not applicable

 i - Flammability
 Not applicable

i - Flammability Not applicable j - Upper/Lower Flammability or Explosive Limits Not applicable k - VAPOR PRESSURE Not applicable I - VAPOR DENSITY Not applicable m - Solubility Not applicable n - Relative Density 2.4 - 2.7 o - Partition Coefficient: n-Octanol/water Not applicable p - Auto-ignition temperature Not applicable q - Decomposition Temperature Not applicable

r - Viscosity
10 - Stability and Reactivity

a - Reactivity

b - Chemical Stability

Stable under conditions of normal use.

c - Possibility of Hazardous Reaction

Not applicable.

d - Conditions to Avoid

None.

e - Incompatible Materials

None.

f - Hazardous decomposition products

No known hazardous decomposition

11 - Toxicological information

a - TOXICOKINETICS, METABOLISM AND DISTRIBUTION

b - Acute Toxicity

 Product/ingredient name
 Result
 Species
 Dose
 Exposure

 Conclusion/Summary
 : Not available.

Not applicable

c - Epidemiology

d - Toxicology

Aluminum Oxide

Low health risk by inhalation, generally considered to be biologically inert. Inhalation in high concentration may cause transient respiratory irritation.

Oral LD50 Rat: >5000 mg/kg.

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 laver

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))

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.

TSCA: All substances contained in this product are listed, if required, in the TSCA Chemical Inventory

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

HMIS HAZARD RATING

HMIS Acute Health: 0

HMIS Flammable: 0

HMIS Reactivity: 0

HMIS Personal Protective: To be supplied by user depending upon use

NFPA Unusual Hazards: None

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.