



## SAFETY DATA SHEET

Following Regulation 1910.1200

SDS Number: 302 Date of first issue: 13 July 1992 Date of last revision: 21 February 2022

### 1 - Identification of product

#### a - Product identifier used on the label

Tradenames: Kao-Seal

#### b - Other means of identification

COATINGS, ADHESIVES

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

Refractory castable sealant, ceramic fiber dust suppressant and adhesive

#### 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](http://www.morganthermalceramics.com) or send a request to [MT.NorthAmerica@morganplc.com](mailto: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

None.

#### Emergency Overview

Repeated or prolonged skin contact may result in mild irritation. Vapor or aerosol, if generated, can cause irritation of the eyes, nose and respiratory tract.

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

The International Agency for Research on Cancer (IARC) has classified vinyl acetate as a possible human carcinogen (Group 2B).

#### d - Mixture Rule

Not applicable.

### 3 - Composition / Information On Ingredients

#### a - Composition table

| COMPONENTS    | CAS NUMBER | % BY WEIGHT |
|---------------|------------|-------------|
| Vinyl Acetate | 108-05-4   | 1-5         |

#### 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

If irritation develops, flush eyes immediately with large amounts of water. If irritation persists, seek medical attention or advice.

##### Skin

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

##### Respiratory Tract

Move to fresh air. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.

##### Gastrointestinal

Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting. If symptoms develop and persist, get medical attention. 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

Use extinguishing measures appropriate to local circumstances and the surrounding environment. Water spray or fog, foam Carbon dioxide. Dry chemical.

### 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

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel. No special environmental precautions required. Do not allow material to contaminate ground water system.

### b - Methods and materials for containment and cleaning up

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

## 7 - Handling and storage

### a - Precautions for safe handling

Follow all SDS/label precautions.

### b - Conditions for safe storage, including any incompatibilities

For safe storage, store between 1 °C (33.8 °F) and 37 °C (98.6 °F). Below temperature limit the product will be irreversibly damaged and no longer usable. Above temperature limit the product properties change. For information on product shelf life, please review labels on container or check the Technical Data Sheet.

### 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 |
| Vinyl Acetate   | Not Established | 10 ppm (8-hr TWA)<br>15 ppm (Ceiling) | NONE               |
| <i>OTHER OCCUPATIONAL EXPOSURE LEVELS (OEL)</i><br>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

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits. Handle in accordance with good industrial hygiene and safety practice.

### c - Individual protection measures, such as personal protective equipment

#### PPE - Skin

Glove Requirements: The use of chemically resistant gloves is recommended.  
Clothing Requirements: Uniforms, coveralls, or a lab coat should be worn.  
Rubber boots and apron, if exposure is severe.  
Change/Removal of Clothing: Remove contaminated clothing and launder before reuse.  
Wash Requirements: Wash before eating, drinking, or using toilet facilities.

#### PPE - Eye

Goggles/safety glasses with sideshields should be worn.

#### PPE – Respiratory

Under normal conditions, respirator is not normally required. If ventilation is not sufficient to effectively prevent buildup of vapor/mist/fume/dust, appropriate NIOSH/MSHA respiratory protection must be provided.

## 9 - Physical and chemical properties

|   |                                  |
|---|----------------------------------|
| <b>a - Appearance</b>                                   | White, slight odor               |
| <b>b -Odor</b>  | Acrylic                          |
| <b>c - Odor Threshold</b>                               | Not available                    |
| <b>e- pH</b>  | 4.0 - 5.0                        |
| <b>d - Melting Point</b>                                | Same as water                    |
| <b>f- Initial Boiling Point/Range</b>                   | >212°F                           |
| <b>g- Flashpoint</b>                                    | > 100.00 °C (> 212°F) Closed cup |
| <b>h - Evaporation Rate</b>                             | 1.00 Same as water               |
| <b>i - Flammability</b>                                 | Not applicable                   |
| <b>j - Upper/Lower Flammability or Explosive Limits</b> | Not applicable                   |
| <b>k - VAPOR PRESSURE</b>                               | 17.5 mmHg (20 C)                 |
| <b>l - VAPOR DENSITY</b>                                | >1.000 (Air = 1)                 |
| <b>m - Solubility</b>                                   | Miscible                         |
| <b>n - Relative Density</b>                             | 1.060 (water = 1)                |
| <b>o - Partition Coefficient: n-Octanol/water</b>       | Not available                    |
| <b>p - Auto-ignition temperature</b>                    | Not applicable                   |
| <b>q - Decomposition Temperature</b>                    | Not available                    |
| <b>r - Viscosity</b>                                    | 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

This product may react with strong oxidizing agents

### f - Hazardous decomposition products

Carbon monoxide, carbon dioxide.

## 11 - Toxicological information

### a - TOXICOKINETICS, METABOLISM AND DISTRIBUTION

#### b - Acute Toxicity

#### c - Epidemiology

#### d - Toxicology

The toxicological properties of this product have not been fully evaluated. Use of good industrial hygiene practices is required. Avoid direct contact with skin or eyes. Do not inject or inhale.

Vinyl Acetate

Product contains residual vinyl acetate. Vinyl acetate vapors have been shown to cause tumors in the respiratory tract of laboratory animals exposed to 600 ppm over a lifetime; 200 ppm causes irritation; 50 ppm produces no observable effect. There is no evidence of adverse effects to humans exposed to levels at or below the ACGIH TLV.

IARC has determined that vinyl acetate is possibly carcinogenic to humans (IARC Monograph, Vol. 63, 1995). In making the overall evaluation, the IARC Working Group took into account the following evidence:

- (i) Vinyl acetate is rapidly transformed into acetaldehyde in human blood and animal tissues.
- (ii) There is sufficient evidence in experimental animals for the carcinogenicity of acetaldehyde (IARC, 1987). Both vinyl acetate and acetaldehyde induce nasal cancer in rats after administration by inhalation
- (iii) Vinyl acetate and acetaldehyde are genotoxic in human cells in vitro and in animals in vivo.

Toxicity on vinyl acetate:

#### ORAL TOXICITY NOTES ON ORAL TOXICITY

Oral LD50: Rat 2920 mg/kg May cause nausea, vomiting and diarrhea.

Oral LD50: Mouse 1600 mg/kg May cause irritation of mouth, throat and digestive tract and depression of the central nervous system.

#### DERMAL TOXICITY NOTES ON DERMAL TOXICITY

Dermal LD50: Rabbit 2335 mg/kg Irritating to the skin. Repeated and/or prolonged contact may cause skin sensitization. Repeated or prolonged contact may cause de-fatting of the skin resulting in dryness, cracking and dermatitis.

#### INHALATION TOXICITY NOTES ON INHALATION TOXICITY

Inhalation LC50 (4hr): Rat 4000 ppm Respiratory irritant. Vapors may cause drowsiness and dizziness.

Inhalation LC50 (4hr): Rabbit 2500 ppm Aspiration of the product into the lungs following ingestions may cause pulmonary injury leading to pneumonitis.

#### NOTES ON EYE IRRITATION

Causes severe eye irritation.

#### International Agency for Research on Cancer and National Toxicology Program

IARC classified vinyl acetate as possibly carcinogenic to humans (Group 2B).

## 12 - Ecological information

No data available.

### c - Bioaccumulative potential

### d - Mobility in soil

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

### 13 - Disposal Considerations

#### Waste Management and Disposal

Dispose of product in accordance with federal, state, and local environmental regulations. If you are unsure of regulations, consult your local Public Health Department, or the local office of the Environmental Protection Agency (EPA). Empty containers may contain product residue. Follow MSDS and label warnings even after they have been emptied.

#### 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

EPA: This product contains Vinyl acetate (CAS # 108-05-4) which is reportable under Section 313 (40 CFR 372). This product is manufactured in compliance with all provisions of the Toxic Substances Control Act, 15 U.S.C. 2601 et. seq.  
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

California: CALIFORNIA PROPOSITION 65:

This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. This product contains a chemical known to the State of California to cause cancer.

#### 15.2 - International Regulations

One or more components are not listed on, and are not exempt from listing on either the Canada Domestic Substances List or the Non-Domestic Substances List.

### 16 - Other Information

#### initial statement

#### Devitrification

#### Product Stewardship Program

Morgan Thermal Ceramics [www.morganthermalceramics.com](http://www.morganthermalceramics.com)

#### HMIS HAZARD RATING

HMIS Acute Health: 1  
HMIS Flammable: 0  
HMIS Reactivity: 0  
HMIS Personal Protective: To be determined by user

#### TECHNICAL DATA SHEETS

Left Blank Intentionally (pending datasheet number)

#### Revision Summary

Revision date 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.