Safety Data Sheet

1. IDENTIFICATION
   
   Product Identifier

   Other Means of Identification
   SDS Number

   Product Code

   Recommended Use
   Not available.

   Recommended Restrictions
   None known.

   Manufacturer/Importers/Supplier/Distributor Information

   Manufacturer/Supplier
   Mo-Sci Corporation, Mo-Sci Health Care, LLC, and Mo-Sci Specialty Products LLC

   Address
   4040 Hypoint North Rolla, MO, USA 65401

   Telephone Number
   573-364-2338

   e-mail
   mo-sci@mo-sci.com

   Contact Person
   Krista Grayson

   Emergency Telephone Number
   573-364-2338

2. HAZARD IDENTIFICATION

   Physical hazards
   Not classified

   Health hazards
   Not classified

   OSHA defined hazards
   Not classified

   Label elements
   None

   Hazard symbols
   None

   Signal word
   Not assigned

   Hazard statement
   Not assigned

   Precautionary statement
   May irritate skin, eyes, mucous membranes.

   Prevention
   Observe good industrial hygiene practices.

   Response
   Wash hands after handling.

   Storage
   Store away from incompatible materials.

   Disposal
   Dispose of in accordance with local regulations.

   Hazard(s) not otherwise Classified (HNOC)
   None known

   Glass is an amorphous fusion of materials whose constituents are tightly bound together and are in a specific chemical environment, totally different from the initial state (in raw materials) and from that occurring in simple compounds (metals or oxides). Under normal conditions, glass never gives metal or oxide as direct dissociation products. Under extreme conditions, only a tiny fraction of glass constituents could leach from the glass matrix into aqueous solutions.

3. COMPOSITION/INFORMATION ON INGREDIENTS

   Mixtures

   Chemical Name
   Glass, Oxide, Chemicals

   CAS number
   65997-17-3

   %
   100

   Constituents
4. FIRST-AID MEASURES

Inhalation
If symptomatic, move to fresh air. Get medical attention if symptoms persist.

Skin Contact
Wash with soap and water. Get medical attention if symptoms occur.

Eye Contact
Material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Ingestion
Seek medical advice.

Most Important Symptoms/Effects, Acute and Delayed
Direct contact with eyes may cause temporary irritation.

Indication of Immediate Medical Attention and Special Treatment Needed
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water, Water fog, Foam, Dry chemical, and Carbon dioxide (CO₂)

Unsuitable Extinguishing Media
None known

Specific Hazards Arising from the Chemical
None known

Special Protective Equipment and Precautions for Firefighters
Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire-fighting Equipment/Instructions
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Wear protective clothing as described in Section 8 of this SDS

Methods and Materials for Containment and Cleaning Up
Sweep or scoop up and remove.
For waste disposal, see Section 13 of the SDS

Environmental Precautions
Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear appropriate personal protective equipment (See Section 8).
Wash thoroughly after handling.
Observe good industrial hygiene practices.
Dust or powder: Use only with adequate ventilation.
Avoid breathing dust.

Conditions for Safe Storage, including any Incompatibilities
Store in a cool dry environment.
Store away from incompatible materials (See Section 10).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits
US OSHA Table z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust (CAS-)</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m³</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

US OSHA Table Z-3 (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust (CAS-)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 millions of particles</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 millions of particles</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

US ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust (CAS-)</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Respirable particles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

Biological Limit Values
No biological exposure limits noted for the ingredient(s).
Appropriate Engineering Controls
Ensure adequate ventilation, especially in confined areas.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection
Normal eye protection practices should be used. If dusty conditions exist, chemical goggles are recommended.

Skin Protection
Hand Protection Regular work gloves.
Other Wear apron or protective clothing in case of contact. If contact with forearms is likely wear gauntlet style gloves.

Respiratory Protection
- If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
- In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134.
- Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Thermal Hazard
Wear appropriate thermal protective clothing, when necessary.

General Hygiene
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, or/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Solid.

Physical State
Solid.

Form
Solid. Glass.

Color

Odor
Odorless.

Odor Threshold
Not available.

pH (in water @25C)
Not available.

Melting Point/Freezing Point
Not available.

Softening Temperature
Not measured.

Initial Boiling Point and Boiling Range
Not applicable.

Flash Point
Not applicable.

Evaporation Rate
Not available.

Flammability (solid, gas)
Not applicable.

Upper/Lower Flammability or Explosive Limits
Flammability Limit-Lower (%)
Not applicable.

Flammability Limit-Upper (%)
Not applicable.

Vapor Pressure
Not available.

Vapor Density
Not applicable.

Relative Density
Not available.

Solubility

Solubility (water)
Not measured.

Partition Coefficient
No data available.

Auto-ignition Temperature
Not applicable.

Decomposition Temperature
Not applicable.

Viscosity
Not applicable.

Specific Gravity
Not measured.

Refractive Index
Not measured.

10. STABILITY AND REACTIVITY

Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transportation.

Chemical Stability
Stable under the prescribed storage conditions.

Possibility of Hazardous Reactions
Hazardous polymerization will not occur.

Conditions to Avoid
Contact with incompatible materials.

Incompatible Materials
Strong acids. Strong bases.

Hazardous Decomposition Products
Metal oxides.

11. TOXICOLOGICAL INFORMATION
Information on Likely Routes of Exposure

**Ingestion**  
No harmful effects expected in amounts likely to be ingested by accident.

**Inhalation**  
No inhalation hazard under normal conditions.

**Skin contact**  
Contact with dust: May cause irritation to the respiratory system.

**Eye contact**  
Direct contact with eyes may cause temporary irritation.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Direct contact with eyes may cause temporary irritation.

Information on Toxicological Effects

**Acute Toxicity**  
May cause discomfort if swallowed.

**Skin Corrosion/Irritation**  
Dust may irritate skin.

**Serious Eye Damage/Eye Irritation**  
Direct contact with eyes may cause temporary irritation.

**Respiratory or Skin Sensitization**  
No data available.

**Respiratory Sensitization**  
Prolonged skin contact may cause dermatitis

**Skin Sensitization**  
No data available.

**Germ Cell Mutagenicity**  
No data available.

**Carcinogenicity**  
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Glass, oxide, chemicals (CAS 65997-17-3)
3 not classifiable as to carcinogenicity to humans

NTP Report on Carcinogens

Glass, oxide, chemicals (CAS 65997-17-3)
Reasonably anticipated to be a Human Carcinogen.

**Reproductive Toxicity**  
No data available.

**Specific Target Organ Toxicity - Single Exposure**  
No data available.

**Specific Target Organ Toxicity - Repeated Exposure**  
No data available.

**Aspiration Hazard**  
Not applicable.

12. ECOLOGICAL INFORMATION

**Ecotoxicity**  
Not expected to be harmful to aquatic organisms.

**Persistence and Degradability**  
No data available.

**Bioaccumulative Potential**  
No data available.

**Mobility in Soil**  
The product is not mobile in soil.

**Other Adverse Effects**  
None known.

13. DISPOSAL CONSIDERATIONS

**Disposal Instructions**  
Do not discharge into drains, water courses or onto the ground.

**Local Disposal Regulations**  
Dispose in accordance with all applicable regulations.

**Hazardous Waste Code**  
Not regulated. The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from Residues/Unused Products**  
Recover and recycle, if practical.

**Contaminated packaging**  
Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

**DOT**  
Not regulated as dangerous goods.

**IATA**  
Not regulated as dangerous goods.

**IMDG**  
Not regulated as dangerous goods.

**Transport in Bulk According to Annex II of MARPOL 73-78 and IBC Code**  
Not applicable.

15. REGULATORY INFORMATION

**US Federal Regulations**  
This product is not hazardous according to OSHA 29CFR 1910-1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
Not regulated.

Not listed.

**CERCLA Hazardous Substance List (40CFR 302.4)**  
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazardous Categories**

<table>
<thead>
<tr>
<th>Hazardous Category</th>
<th>Regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Delayed Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>
Pressure Hazard  No 
Reactivity Hazard  No 
SARA 302 Extremely Hazardous Substance  Not listed. 
SARA 311/312 Hazardous Chemical  No 
SARA 313 (TRI reporting)  No

Other Federal Regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List  Not regulated. 
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)  Not regulated. 
Safe Drinking Water Act (SDWA)  Not Regulated. 

US State Regulations
US Massachusetts RTK – Substance List
Aluminum oxide (CAS 1344-28-1) 
Quartz (CAS 14808-60-7) 

US New Jersey Worker and community Right-to-Know Act
Aluminum oxide (CAS 1344-28-1) 
Quartz (CAS 14808-60-7) 

US Pennsylvania worker and Community Right-to-Know Law
Aluminum oxide (CAS 1344-28-1) 
Quartz (CAS 14808-60-7) 

US Rhode Island RTK
Aluminum oxide (CAS 1344-28-1) 

US - California Proposition 65-Carcinogens & Reproductive Toxicity (CTR): Listed substance 
Quartz (CAS 14808-60-7) 

Warning: This product contains chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

Internal Inventories
<table>
<thead>
<tr>
<th>Countries or Region</th>
<th>Inventory Name</th>
<th>On Inventory *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substance control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A “yes” indicates this product complies with the inventory requirements administered by the governing country(s).
A “no” indicates that one or more components of the products are not listed or except from listing on the inventory administered by the governing country(s).

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION
Issue Date  22-March-2018
Revision Date  27-Feb-2020
Version  12
Further Information  The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

NFPA Ratings

Disclaimer  The information in the sheet was written based on the best knowledge and experience currently available.