

BOROSILICATE GLASS Alpha Resources LLC

Safety Data Sheet Issue Date: 03/02/2021

SECTION 1 Identification

| Product Identifier |
|--------------------|
|--------------------|

| Product Name | BOROSILICATE GLASS |
|------------------|--|
| Chemical Name | Glass, oxide |
| Part Numbers | AEC1008, AR007, AR010, AR011, AR011B, AR012, AR014, AR016, AR018, AR019, AR021, AR029, AR030, AR030M, AR032, AR033, AR047, AR051, AR065, AR066, AR083, AR106, AR116, AR133, |
| | AR157, AR158, AR181, AR181-100, AR182, AR182-100, AR183, AR183-100, AR183-500, AR190, AR317, AR333, AR373, AR390, AR446, AR449, AR473, AR504, AR505, AR506, AR540, AR541, |
| | AR542, AR544, AR601, AR638, AR746, AR762, AR801, AR880, AR901, AR905, AR913, AR914, |
| | AR917, AR928, AR931, AR932, AR933, AR936, AR978, AR01032, AR09090, AR1065, AR11062, AR88400-0006, AR2216/4, AR4031, AR6327, AR6655, AR7548, AR7716, AR8809, AR9268, |
| | AR9316, AR9425 |
| Chemical Formula | N/A |
| CAS Number | 65997-17-3 |

Company Information

| Registered Company Name | Alpha Resources LLC |
|-------------------------|---|
| Address | 3090 Johnson Road, Stevensville, MI 49127 United States |
| Telephone | (800) 833-3083 |
| Fax | (269) 465-3629 |
| Website | https://www.alpharesources.com |
| Email | sales@alpharesources.com |

Emergency Phone Number

| Association / Organization | CHEMTREC |
|----------------------------|----------------|
| Emergency Telephone No. | (800) 424-9300 |

SECTION 2 Hazard(s) Identification

Classification of the Substance or Mixture

NFPA 704 Diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDS are NOT to be used to fill in the NFPA 704 diamond. Blue = Health, Red = Fire, Yellow = Reactivity, White = Special (Oxidizer or water reactive substances)

| Classification | N/A |
|----------------|-----|
| | |

Label Elements

| Hazard Pictogram(s) | N/A |
|---------------------|-----|
| Signal Word | N/A |

Hazard Statement(s)

Not applicable



Hazard(s) not Otherwise Classified

Not applicable

Precautionary Statement(s) Prevention

| P260 | Do not breathe dust/fume. |
|------|--|
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |

Precautionary Statement(s) Response

| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
|----------------|--|
| P337+P313 | If eye irritation persists: Get medical advice/attention. |

Precautionary Statement(s) Storage

Not applicable

Precautionary Statement(s) Disposal

P501 Dispose of contents/container to authorized hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / Information on Ingredients

Substances

| CAS No | %[weight] | Name |
|------------|-----------|-----------------|
| 65997-17-3 | >98 | Glass, oxide |
| | | |
| 7631-86-9 | <82 | Silicon dioxide |
| 1303-86-2 | <15 | Boron oxide |
| 12136-45-7 | <10 | Potassium oxide |
| 1313-59-3 | <10 | Sodium oxide |
| 1344-28-1 | <5 | Aluminum oxide |

SECTION 4 First-Aid Measures

Description of First Aid Measures

| Eye Contact | If this product comes in contact with the eyes: |
|--------------|--|
| | > Wash out immediately with fresh running water. |
| | Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. |
| | > Seek medical attention without delay; if pain persists or recurs seek medical attention. |
| Skin Contact | Flush skin with running water (and soap if available). |
| | Seek medical attention in event of irritation. |
| Inhalation | If fumes or combustion products are inhaled remove from contaminated area. |
| | Lay patient down. Keep warm and rested. |
| Ingestion | Immediately give a glass of water. |
| - | First aid is not generally required. If in doubt, contact a Poison Information Center or a doctor. |

Most important symptoms and effects, both acute and delayed

See Section 11



Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Fire-Fighting Measures

Extinguishing Media

- > There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

| Fire Incom | patibility | None | known. |
|------------|------------|------|--------|
| | | | |

Special protective equipment and precautions for fire-fighters

| Fire Fighting | Alert fire department and tell them location and nature of hazard. |
|-------------------------|--|
| | Wear breathing apparatus plus protective gloves in the event of a fire. |
| | Prevent, by any means available, spillage from entering drains or water courses. |
| | Cool fire exposed containers with water spray from a protected location. |
| Fire / Explosion Hazard | ➢ Noncombustible. |
| | Not considered a significant fire risk, however containers may burn. |

SECTION 6 Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

| Minor Spills | Avoid breathing dust and contact with skin and eyes |
|--------------|--|
| | Wear protective clothing, gloves, safety glasses and dust respirator. |
| | Use dry clean up procedures and avoid generating dust. |
| | Vacuum up or sweep up. NOTE: Vacuum cleaner must be fitted with an exhaust micro filter (HEPA type) (consider explosion-proof machines designed to be grounded during storage and use). |
| | Dampen with water to prevent dusting before sweeping. |
| | Place in suitable containers for disposal. |
| Major Spills | Control personal contact by wearing protective clothing. |
| | Prevent, by any means available, spillage from entering drains or water courses. |
| | Recover product wherever possible. |
| | IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal. |
| | > ALWAYS: Wash area down with large amounts of water and prevent runoff into drains. |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and Storage

Precautions for safe handling

| | - |
|---------------|--|
| Safe Handling | Avoid all personal contact, including inhalation. |
| | Wear protective clothing when risk of exposure occurs. |
| | |



| When handling, DO NOT eat, drink or smoke. Always wash hands with soap and water after handling. |
|---|
| Handle with caution, product is fragile. |

Conditions for safe storage, including any incompatibilities

| Suitable Container | Product is fragile, store in safe environment to avoid breakage. | |
|-------------------------|--|--|
| Storage Incompatibility | Sorosilicates are highly unreactive. However, the glass can react with sodium hydride upon | |
| | heating to produce sodium borohydride, a common laboratory reducing agent. | |

SECTION 8 Exposure Controls / Personal Protection

Control parameters

- Occupational Exposure Limits (OEL)
- ✤ INGREDIENT DATA
 - Not Available

Emergency Limits

| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|--------------|---|---------------|-----------|-----------|
| Glass, oxide | Fibrous glass; (Fiber glass; Glass frit, Synthetic vitreous fibers) | 15 mg/m3 | 170 mg/m3 | 990 mg/m3 |
| Ingredient | Original IDLH | Revised IDLH | | |
| Graphite | Not Available | Not Available | | |

Exposure Controls

| Engineering Controls | ➤ Not applicable. |
|--------------------------|---|
| Eye and Face Protection | Safety glasses with side shields. |
| | Eye wash unit. |
| Skin and Body Protection | No special equipment needed when handling small quantities. |
| | Protective clothing |
| | Barrier cream. |
| Hand Protection | Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include frequency and duration of contact, chemical resistance of glove material, glove thickness, and dexterity. |
| | Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present: polychloroprene, nitrile rubber, butyl rubber, fluor caoutchouc, and polyvinyl chloride. Gloves should be examined for wear and/or degradation constantly. |
| Respiratory Protection | Particulate – P1 (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent) |

SECTION 9 Physical and Chemical Properties

Information on basic physical and chemical properties

| Appearance | Solid, transparent, clear. |
|----------------|----------------------------|
| Physical State | Divided solid |
| Odor | Odorless |



| Melting Point / Freezing | 730 approx. |
|------------------------------|-------------|
| Point (°C) | |
| Solubility in Water | Immiscible |
| Relative Density (Water = 1) | 2.6 approx. |

SECTION 10 Stability and Reactivity

| Reactivity | See section 7 |
|--------------------------|---|
| Chemical Stability | Unstable in the presence of incompatible materials. |
| | Product is considered stable. |
| | Hazardous polymerization will not occur. |
| Possibility of Hazardous | See section 7 |
| Reactions | |
| Conditions to Avoid | See section 7 |
| Incompatible Materials | See section 7 |
| Hazardous Decomposition | > Noncombustible |
| Products | Not considered a significant fire risk |

SECTION 11 Toxicological Information

Information on toxicological effects

| Inhaled | Inhalation of dusts, generated by the material during grinding or other processing, may be damaging to the health of the individual. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. | |
|--------------|---|--|
| Ingestion | The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. | |
| Skin Contact | The material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition. | |
| Еуе | This material can cause eye irritation and damage in some persons. | |
| Chronic | Long term exposure to high dust concentrations may cause changes in lung function i.e., pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung. | |
| Glass, oxide | Toxicity – Oral (Rat) LD50; >2000 mg/kg ^[1] Irritation – Not Available | |

[1] Value obtained from Europe ECHA Registered Substances – Acute toxicity

| Acute Toxicity | X | Carcinogenicity | X |
|--------------------------------------|---|--------------------------|---|
| Skin Irritation/Corrosion | X | Reproductivity | X |
| Serious Eye Damage/Irritation | X | STOT – Single Exposure | x |
| Respiratory or Skin Sensitization | x | STOT – Repeated Exposure | X |
| Mutagenicity | X | Aspiration Hazard | X |

Data either not available or does not fill the criteria for classification Legend: X

√ - Data available to make classification.

SECTION 12 Ecological Information

Test Duration (hr)

Toxicity

Endpoint

Species



| 96 | Fish | >1000 mg/L |
|-----|-------------------------------|---|
| 96 | Algae or other aquatic plants | 2.655 mg/L |
| 48 | Algae or other aquatic plants | 0.0045 mg/L |
| 264 | Algae or other aquatic plants | 0.0091 mg/L |
| - | 96 48 | 96 Algae or other aquatic plants 48 Algae or other aquatic plants |

Values obtained from Europe ECHA Registered Substances – Ecotoxicological Information – Aquatic Toxicity

DO NOT discharge into sewer or waterways

Persistence and Degradability – No data available

Bio accumulative Potential – No data available

Mobility in Soil – No data available

SECTION 13 Disposal Considerations

Waste Treatment Methods

Product / Packaging Disposal

Recycle wherever possible.
 Waste disposal should be done in compliance with existing federal, state and local environmental regulations.

SECTION 14 Transport Information

Labels Required

Marine Pollutant NO

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product Name | Group |
|--------------|---------------|
| Glass, oxide | Not Available |

Transport in bulk in accordance with the ICG Code

| Product Name | Ship Type |
|--------------|---------------|
| Glass, oxide | Not Available |

SECTION 15 Regulatory Information

Safety, Health, and Environmental Regulations / Legislation Specific for the Substance or Mixture

***** Graphite is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)

| US Toxic Substances Control Act (TSCA) – Chemical Substance Inventory | |
|--|--|
| US TSCA Chemical Substance Inventory – Interim List of Active Substances | |

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories



| Flammable (Gases, Aerosols, Liquids, or Solids) | No |
|--|----|
| Gas under pressure | |
| Explosive | No |
| Self-heating | No |
| Pyrophoric (Liquid or Solid) | No |
| Pyrophoric Gas | No |
| Corrosive to metal | No |
| Oxidizer (Liquid, Solid, or Gas) | No |
| Organic Peroxide | No |
| Self-reactive | No |
| In contact with water emits flammable gas | No |
| Combustible Dust | No |
| Carcinogenicity | No |
| Acute toxicity (any route of exposure) | No |
| Reproductive toxicity | No |
| Skin Corrosion or Irritation | No |
| Respiratory or Skin Sensitization | No |
| Serious eye damage or eye irritation | No |
| Specific target organ toxicity (single or repeated exposure) | |
| Aspiration Hazard | |
| Germ cell mutagenicity | No |
| Simple Asphyxiant | No |
| Hazards Not Otherwise Classified | No |

 US EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4) None Reported

State Regulations

US California Proposition 65

None Reported

National Inventory Status

| National Inventory | Status |
|---|-------------------|
| Australia – AIIC / Australia Non-Industrial Use | Yes |
| Canada – DSL | Yes |
| Canada – NDSL | No (glass, oxide) |
| China – IECSC | Yes |
| Europe – EINEC / ELINCS / NLP | Yes |
| Japan – ENCS | No (glass, oxide) |
| Korea – KECI | Yes |
| New Zealand – NZIoC | Yes |
| Philippines – PICCS | Yes |
| USA – TSCA | Yes |
| Taiwan – TCSI | Yes |
| Mexico – INSQ | Yes |
| Vietnam – NCI | Yes |
| Russia – ARIPS | Yes |



| Legend: Yes = All CAS declared ingredients are on the inventory | |
|---|---|
| | No = One or more of the CAS listed ingredients are not on the inventory |
| | and are not exempt from listing (see specific ingredients in brackets) |

SECTION 16 Other Information

| Revision Date | 03/02/2021 |
|---------------|------------|
| Initial Date | 03/24/2015 |

The data and information as stated was furnished by the manufacturer/vendor/supplier of this product. Alpha Resources LLC cannot warrant the accuracy of this information and shall not be responsible or liable for any damage that may result, should any of the information be erroneous.