

Safety Data Sheet

Product Identifier: Silbrico – Ryolex
Version: 14.6

Date Revised: December 2024

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 – Product Identifier

- **Product Name** – Expanded Perlite
- **Product Number** – Ryolex – All Grades
- **Trade Name** – Silbrico – Ryolex
- **Chemical Name** – Sodium Potassium Aluminum Silicate
- **Chemical Family** – Amorphous Volcanic Glass
- **CAS #** - 93763-70-3

1.2 – Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

- Multi-Functional Industrial/Commercial Mineral
- **Relevant Identified Uses:** Insulation, Construction and Industrial
- **Uses Advised Against:** No additional information available.

1.3 – Details of the Supplier of the Safety Data Sheet

- Silbrico Corporation
6300 River Road
Hodgkins, IL, U.S.A. 60525
- **Phone:** +1-(708) 354-3350
- **Emergency Phone Number:** +1-(708) 354-3350
- **Office Hours:** 7:30 AM – 4:30 PM (UTC -6)
- **Website:** <http://www.silbrico.com>

Section 2: Hazards Identification

2.1 – Classification of the Substance or Mixture

- **Component Classified** – None
- **GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)** – Not Classified
 - **GHS Label elements, including precautionary statements**
 - **Pictogram** - Not applicable
 - **Signal Word** - No signal word
 - **Hazard Statements** - See below
 - **Precautionary Statements** - Not applicable
 - **Hazards not otherwise classified (HNOC) or not covered by GHS** - None
- **According to Regulation (EC) No 1272/2008:**
 - **Mixture Classification:** Not classified, material is a substance
 - **Physical and Chemical Hazards:** Does not meet the criteria for classification.
 - **Human Health Hazards:**
 - **Skin Contact** – Repeated or prolonged contact may cause irritation.
 - **Skin Absorption** – Not applicable

Safety Data Sheet

Product Identifier: Silbrico – Ryolex

Version: 14.6

Date Revised: December 2024

- **Eye Contact** – May irritate or injure eyes, mechanically.
- **Inhalation - Upper Respiratory Irritant:** May aggravate pre-existing respiratory conditions. Levels of Respirable Crystalline Silica (RCS) in Perlite, are undetectable. Because it is known that long-term inhalation of RCS can cause disabling lung disease (silicosis), OSHA has published revised exposure limits. The current Action Level (AL) and Permissible Exposure Limit (PEL) as an average during 8 hours of continuous exposure are 25 µg/m³ (Air) and 50 µg/m³ (Air), respectively.
- **Environmental Hazards** - Does not meet the criteria for classification.

2.2 – Label Elements

- **According to Regulation (EC) No 1272/2008:**
 - **Hazard Pictograms** – Not applicable
 - **Signal Word** – Not applicable
 - **Hazard Statements** – Not applicable
 - **Supplemental Hazard Information** – Not applicable
 - **Precautionary Statements:**
 - **General** – Not applicable
 - **Prevention** – Not applicable
 - **Response** – Not applicable
 - **Storage** – Not applicable
 - **Disposal** - Not applicable
 - **The identity of substances that contribute to the classification** – Not applicable
 - **Supplemental label elements** – Not applicable
 - **Packaging to be fitted with child-resistant fastenings** – Not applicable
 - **Packaging to be fitted with a tactile warning** – Not applicable

2.3 – Other Hazards

- **PBT, vPvB, SVCH or ED criteria** – The product does not contain any ingredients:
 - Which meet the PBT or vPvB criteria as laid down in Annex XIII to Regulation (EC) No 1907/2006, or which were included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or which were identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.
- **Other hazards which do not result in classification** – This product is not expected to produce any unusual hazards during normal use. However, dust may be released into the air while moving/using the product. Exposure to high dust levels may irritate the skin, eyes, nose, throat, or upper respiratory tract. Ensure adequate ventilation and avoid breathing excessive dust. Naturally occurring minerals used in this product may contain trace amounts of Crystalline Silica.

Safety Data Sheet

Product Identifier: Silbrico – Ryolex
Version: 14.6

Date Revised: December 2024

Section 3: Composition/Information on Ingredients

3.1 & 3.2 – Substances/Mixtures

- **Substance/ Mixture** – Substance
- **Other Means of Identification** – Expanded Perlite
- **Product Description/Components**
 - **Chemical Name, Empirical Formula** – Sodium Potassium Aluminum Silicate
 - **CAS Number** - 93763-70-3
 - **Percentage (%)** – 100%

- **Ingredients declaration according to Regulation (EC) No 1272/2008**
 - The mixture contains no dangerous substances exceeding the limits of the EU Regulation.
 - Workplace exposure limits, if available, are listed in Section 8.

Section 4: First Aid Measures

4.1 – Description of First Aid Measures

- **Eye Contact** – In case of eye contact, flush eyes with water for at least five minutes. Remove contact lenses if easy to do so. Continue rinsing.
- **Inhalation** – If adverse effects occur, remove to fresh air. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.
- **Skin Contact** – Use good hygiene practices including washing of skin with soap and water. If irritation occurs, seek medical attention.
- **Ingestion** – Not an anticipated route of exposure. Do not induce vomiting. If a large amount is swallowed, get medical attention.

4.2 – Most Important Symptoms/Effects, Acute and Delayed

- **Potential Acute Health Effects**
 - **Eye Contact** – May cause slight mechanical irritation.
 - **Inhalation** – May cause slight mechanical irritation.
 - **Skin Contact** – May cause slight mechanical irritation.
 - **Ingestion** – No known significant effects or critical hazards.
- **Over Exposure Signs/Symptoms**
 - **Eye Contact** – No known significant effects or critical hazards.
 - **Inhalation** – No known significant effects or critical hazards.
 - **Skin Contact** – No known significant effects or critical hazards.
 - **Ingestion** – No known significant effects or critical hazards.

Safety Data Sheet

Product Identifier: Silbrico – Ryolex

Version: 14.6

Date Revised: December 2024

4.3 – Indication of any Immediate Medical Attention and Special Treatment Needed

- **Notes to Physican** – Perform symptomatic treatment to alleviate any effects.

Section 5: Firefighting Measures

5.1 - Extinguishing Media

- **Suitable Extinguishing Media** – Use an extinguishing agent suitable for the surrounding fire.
- **Unsuitable Extinguishing Media** – None known.

5.2 – Special Hazards Arising from the Substance or Mixture

- **Hazardous Thermal Decomposition Products** - No specific fire or explosion hazard.

5.3 – Advice for Firefighters

- **Special Firefighting Methods** – Not relevant to this product.
- **Protective Equipment for Firefighters** – Wear protection and self-contained respiratory protective device.

Section 6: Accidental Release Measures

6.1 – Personal Precautions, Protective Equipment and Emergency Procedures

- **For Non-Emergency Personnel** – Products are naturally occurring earthen materials. No special precautions are known.
- **For Emergency Responders** – Products are naturally occurring earthen materials. No special precautions are known.

6.2 – Environmental Precautions

- Products are naturally occurring earthen materials. No special precautions are known.

6.3 – Methods and Material for Containment and Cleaning Up

- **Leak and Spill Procedures:** Normal clean-up procedures. Care should be taken to avoid causing dust to become airborne. Vacuum cleaning systems are recommended. Wetting spilled material with water may control dust and make clean up easier.

6.4 – References to Other Sections

- *Note* – see section 1 for contact information at emergency situation, for personal protective equipment and for waste disposal – see sections 8 and 13, respectively.

Safety Data Sheet

Product Identifier: Silbrico – Ryolex
Version: 14.6

Date Revised: December 2024

Section 7: Handling and Storage

7.1 – Precautions for Safe Handling

- Wear personal protective equipment in accordance with those recommendations provided in Section 8. Use good hygiene practices and wash hands and face before eating, drinking, or conducting personal hygiene. Reduce contamination from clothing and protective equipment before entering eating areas.

7.2 – Conditions for Safe Storage, Including any Incompatibilities

- Store with other dusty materials, away from products that could be affected by dust.

Section 8: Exposure Controls/Personal Protection

8.1 – Control Parameters

- Occupational Exposure Limits (General Dusts)

- **OSHA (PEL)** - 15 mg/m³ (TWA, total particulates, not otherwise regulated)
3 mg/m³ (TWA, respirable particulates, not otherwise regulated)
- **ACGIH (TLV)** - 10 mg/m³ (TWA, total particulates, not otherwise regulated)
3 mg/m³ (TWA, respirable particulates, not otherwise regulated)

Note: Please refer to your National occupational exposure limits, if applicable.

8.2 – Exposure Controls

- Engineering Controls

- Observe occupational limits and provide local ventilation as necessary to control dust inhalation.

- Personal Protective Equipment

- **Hygiene Measures** – No specific recommendation made, but good hygiene practices are advised. Wash hands, forearms and face after handling products and prior to eating, smoking, and using the restroom.
- **Eye/Face Protection** – Wear eye protection where excessive eye contact may occur. Provide eyewash station.
- **Skin and Body Protection** – Follow good Industrial Hygiene practices. Wash hands at the end of each work shift and before eating, smoking, and personal hygiene.
- **Respiratory Protection** – NIOSH/OSHA approved dust mask adequate for contaminant concentrations encountered.

Safety Data Sheet

Product Identifier: Silbrico – Ryolex
Version: 14.6

Date Revised: December 2024

Section 9: Physical and Chemical Properties

9.1 – Information on Basic Physical and Chemical Properties

- **Physical State** – Solid powder or granules
- **Color** – Grey to Off-White
- **Upper/Lower Flammability/Explosive Limits** – Not Applicable
- **Odor** – Odorless
- **Odor Threshold** - Not Applicable
- **Vapor Pressure** – Not Applicable
- **Vapor Density** – Not Applicable
- **VOC Content** – None
- **Viscosity** – Not Applicable
- **pH** – 6.5 – 7.5, as 10% slurry in distilled water
- **Specific Gravity** – 2.35 (Water = 1)
- **Bulk Density** – 2 – 15 lb./cuft
- **Melting/Freezing Point** – Not Applicable
- **Solubility(ies)** – Negligible
- **Initial Boiling Point and Boiling Range** – Not Applicable
- **Partition Coefficient: n-octanol/water** – Not Applicable
- **Flash Point** - Not Applicable
- **Auto-Ignition Temperature** – Not Applicable
- **Evaporation Rate** – Not Available
- **Decomposition Temperature** – Not Available
- **Flammability (Solid, Gas)** – Not Flammable (Inorganic Solid)

Section 10: Stability and Reactivity

10.1 – Reactivity – Stable under normal temperature conditions.

10.2 – Chemical Stability – Stable under normal storage and handling conditions.

10.3 – Possibility of Hazardous Reactions – Silicon tetrafluoride gas will result with contact with hydrofluoric acid.

10.4 – Conditions to Avoid (i.e. Static Discharge, Shock, or Vibration) – Avoid contact with hydrofluoric acid.

10.5 – Incompatible Materials – Hydrofluoric Acid

Safety Data Sheet

Product Identifier: Silbrico – Ryolex

Version: 14.6

Date Revised: December 2024

10.6 – Hazardous Decomposition Products – Hazardous decomposition products will not be produced under normal conditions of storage and use. In the presence of hydrofluoric acid, hazardous gases may form.

Section 11: Toxicological Information

11.1 – Information on Toxicological Effects

- These substances have shown no evidence of adverse health effects under normal conditions of use or in extreme upset environments.

- **Acute Toxicity** – This product is not classified.
- **Irritation/Corrosion** – This product is not classified.
- **Sensitization** – Upper Respiratory Irritant: May aggravate pre-existing respiratory conditions. Levels of Respirable Crystalline Silica (RCS) in Perlite, if present at all, are undetectable. Because it is known that long-term inhalation of respirable crystalline silica can cause disabling lung disease (silicosis), OSHA has published revised exposure limits. The current Action Level (AL) and Permissible Exposure Limit (PEL) as an average during 8 hours of continuous exposure are 25 µg/m³ (Air) and 50 µg/m³ (Air), respectively.
- **Mutagenicity** – This product is not classified.
- **Carcinogenicity** – This product is not classified.
- **Reproductive Toxicity** – This product is not classified.
- **Teratogenicity** – This product is not classified.
- **Specific Target Organ Toxicity (Single Exposure)** – This product is not classified.
- **Specific Target Organ Toxicity (Repeated Exposure)** – This product is not classified.
- **Aspiration Hazard** - This product is not classified.

– Information on the Likely Routes of Exposure (Dermal Contact, Eye Contact, Inhalation, Ingestion)

- **Potential Acute Health Effects**
 - **Eye Contact** – No known significant health effects or critical hazards.
 - **Inhalation** – No known significant health effects or critical hazards.
 - **Skin Contact** – No known significant health effects or critical hazards.
 - **Ingestion** – No known significant health effects or critical hazards.

- **Symptoms Related to the Physical, Chemical and Toxicological Characteristics**
 - **Eye Contact** – Particles in eyes may cause mechanical irritation.
 - **Inhalation** – Dust in high concentrations may irritate the respiratory system.
 - **Skin Contact** – Powder may irritate the skin.
 - **Ingestion** – May cause discomfort if swallowed

Safety Data Sheet

Product Identifier: Silbrico – Ryolex
Version: 14.6

Date Revised: December 2024

- **Delayed and Immediate Effects and Also Chronic Effects from Short and Long Term Exposure**
 - **Short Term Exposure**
 - **Potential Immediate Effects** – No known significant health effects or critical hazards.
 - **Potential Delayed Effects** – No known significant health effects or critical hazards.
 - **Long Term Exposure**
 - **Potential Immediate Effects** – No known significant health effects or critical hazards.
 - **Potential Delayed Effects** – No known significant health effects or critical hazards.
- **Potential Chronic Health Effects**
 - **General** – No known significant health effects or critical hazards.
 - **Carcinogenicity** – No known significant health effects or critical hazards.
 - **Mutagenicity** – No known significant health effects or critical hazards.
 - **Teratogenicity** – No known significant health effects or critical hazards.
 - **Developmental Effects** – No known significant health effects or critical hazards.
 - **Fertility Effects** - No known significant health effects or critical hazards.

11.2 – Information on Other Hazards

- **Endocrine Disrupting Properties**
 - The substance does not contain any ingredients:
 - Which were included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or which were identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.
 - According to our present knowledge and experience with handling the product properly and according to recommendations any hazardous effects on human health are not anticipated.

Section 12: Ecological Information

12.1 – Toxicity – Aquatic Toxicity – Inert, non-leaching mineral product.

12.2 – Persistence and Degradability – No relevant information available.

12.3 – Bioaccumulative Potential – No relevant information available.

Safety Data Sheet

Product Identifier: Silbrico – Ryolex

Version: 14.6

Date Revised: December 2024

12.4 – Mobility in Soil – Not relevant, due to the form of the products.

12.5 – Results of PBT and vPvB Assessment – Not applicable to the product.

12.6 – Endocrine Disrupting Properties

- The mixture does not contain any ingredients:

- Which were included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or which were identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.

12.7 – Other Adverse Effects - None. Expanded and/or Milled Perlite products represent a heat processed inorganic, inert material that does not constitute any known health hazards and is non-combustible.

Section 13: Disposal Considerations

13.1 – Waste Treatment Methods – Dispose of waste and residues in accordance with local and national environmental requirements.

Section 14: Transportation Information

14.1 – Special Shipping Information

- **DOT** – No special requirements.
- **IMO** – Non-Hazardous
- **ICAO** – Non-Hazardous
- **ADR/RID/ADN, IMDG, IATA** – Non-Hazardous

Section 15: Regulatory Information

US Federal Regulations

- **WHMIS Classification** – N/A
- **OSHA** – Label as required by Hazard Communication Standard 29 CFR 1910.1200 (f) and applicable state and local laws and regulations.
- **TSCA** – Included as a naturally occurring material.
- **Canada DSL** – Included or exempt.
- **Europe** – Exempt from REACH as a naturally occurring mineral, not chemically modified. Status confirmed in Annex V Guidance Document Version 1.1, November 2012.

Safety Data Sheet

Product Identifier: Silbrico – Ryolex
Version: 14.6

Date Revised: December 2024

Section 16: Other Information

- This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.
- *Note* - Information provided in this document is believed to be accurate as of May 2024 and may be subject to change without notice. The information is provided in good faith to comply with applicable federal and state laws. However, no warranty or representation with respect to such information is intended or given. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Document History

Version – 14.6

Revision Date – December 2024