

## **MATERIAL SAFETY DATA SHEET (MSDS)**

### **POTASSIUM SILICATE GLASS/LUMPS**

#### **SECTION 1: IDENTIFICATION OF THE SUBSTANCE**

**Product identifier****Product Name****POTASSIUM SILICATE GLASS/LUMPS****Alternative names****Potassium water glass, and silicic acid potassium salt****CAS No.**

1312-76-1

**EINECS No.**

215-199-1

**Relevant identified uses of the substance or mixture and uses advised against****Identified use(s)**

General purpose industrial chemical for use in a wide range of applications.

#### **SECTION 2: HAZARDS IDENTIFICATION**

**Classification of the substance or mixture****GHS Classification**

H319 : Serious eye damage/irritation Category 2

H315 : Skin corrosion/irritation Category 2

H335 : STOT - single  
exposure Category 3**Label elements****Hazard statement(s)**

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

**Adverse physicochemical, human health and environmental effects**

May cause respiratory irritation. Causes skin irritation. Causes serious eye irritation.

Precautionary statement(s)

P261: Avoid breathing dust.  
 P262: Do not get in eyes, on skin, or on clothing.  
 P264: Wash (hands and exposed skin) thoroughly after handling.  
 P271: Use only outdoors or in a well-ventilated area.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.  
 P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Other hazards

Not Calcified as PBT substance

### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

| Ingredient(s)            | %W/W | CAS No.   | Hazard symbol(s) and hazard statement(s)       |
|--------------------------|------|-----------|------------------------------------------------|
| Potassium Silicate Glass | >99  | 1312-76-1 | Eye Irrit. 2 ;<br>Skin Irrit. 2 ;<br>STOT SE 3 |

### **SECTION 4: FIRST AID MEASURES**

**Description of first aid measures**

|              |                                                                                                                                        |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Eye Contact  | Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention. |
| Skin Contact | Wash affected skin with plenty of water. If symptoms develop, obtain medical attention.                                                |
| Inhalation   | Remove patient from exposure, keep warm and at rest. Obtain medical attention.                                                         |
| Ingestion    | Do not induce vomiting. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Obtain medical attention.       |

**Most important symptoms and effects, both acute and delayed**

Alkaline.  
 Causes serious eye irritation  
 Irritating to respiratory system and skin.  
 The toxicity of sodium silicate is dependent on the silica to alkali ratio and on the pH.  
 Obtain immediate medical attention.

**Indication of any immediate medical attention and special treatment needed**

### **SECTION 5: FIRE-FIGHTING MEASURES**

**Extinguishing media**

Suitable Extinguishing Media Use extinguishing media appropriate for surrounding fire.

**Special hazards arising from the substance or mixture:**

Hazardous decomposition products in case of fire: Toxic fumes may be released.

**Advice for fire-fighters:**

**Protection during firefighting**

Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions,  
protective equipment and  
emergency procedures**

Wear suitable protective clothing. Wear eye/face protection.  
An approved dust mask should be worn if dust is generated  
during handling. See Section: 8.2

**Environmental precautions**

Do not allow to enter drains, sewers or watercourses. Advise  
Authorities if spillage has entered water course or sewer or has  
contaminated soil or vegetation.

**Methods and materials for  
containment and cleaning up**

Caution - spillages may be slippery. Avoid generation of dust.  
Sweep or preferably vacuum up and collect in suitable containers  
for recovery or disposal.

**Reference to other sections**

See Also Section 8.

## **SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling** Avoid contact with eyes, skin and clothing.

Avoid generation of dust.

Emergency shower and eye wash facilities should be readily  
available.

See Also Section 8.

**Conditions for safe storage,  
including any incompatibilities**

Keep container tightly closed and dry.

Unsuitable containers: Aluminum

See Also Section 10.

**Specific end use(s)**

See also Annex to the extended Safety Data Sheet.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters** ·

**Ingredients with limit values that require monitoring at the workplace:** Not required. ·

**Additional information:** The lists valid during the making were used as basis. ·

**Exposure controls** · Appropriate engineering controls No further data;

**Individual protection measures, such as personal protective equipment** ·

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals. ·

**Respiratory protection:** Suitable respiratory protective device recommended. ·

**Hand protection**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of  
the glove material on consideration of the penetration times, rates of diffusion and the degradation ·

Material of gloves

NBR: acrylonitrile butadiene rubber

CR: chloroprene (chlorobutadiene) rubber

Polyvinyl chloride

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and  
varies from manufacturer to manufacturer. ·

**Penetration time of glove material**

**The exact break through time has to be found out by the manufacturer of the protective gloves and has to be**

- **Eye and face protection:**
- **Eye protection:** Safety glasses.
- **Skin protection:** Skin and body protection: Wear suitable protective clothing.
- **Hand protection:** Protective gloves. ·

- **Environmental exposure controls:** Avoid release to the environment

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

### **Information on basic physical and chemical properties**

|                                |                        |
|--------------------------------|------------------------|
| Appearance                     | Solid lumps.           |
| Odour                          | Odourless.             |
| Odour Threshold (ppm)          | Not applicable.        |
| pH (Value)                     | < 7                    |
| Freezing Point (°C)            | <0                     |
| Boiling Point (°C)             | Not applicable.        |
| Flash Point (°C) [Closed cup]  | Not applicable.        |
| Evaporation rate               | Not applicable.        |
| Flammability (solid, gas)      | Not applicable.        |
| Explosive Limit Ranges         | Not applicable.        |
| Vapour Pressure (mm Hg)        | Not applicable.        |
| Vapour Density (Air=1)         | No data.               |
| Density (g/ml)                 | 2.61 g/cm <sup>3</sup> |
| Solubility (Water)             | Soluble.               |
| Solubility (Other)             | No data.               |
| Partition Coefficient          | No data.               |
| Auto Ignition Point (°C)       | Not applicable.        |
| Decomposition Temperature (°C) | Not applicable.        |
| Viscosity (mPa. s)             | Not applicable.        |
| Explosive properties           | Not applicable.        |
| Oxidizing Properties           | Not applicable.        |
| <b>Other information</b>       | No data.               |

## **SECTION 10: STABILITY AND REACTIVITY**

|                                           |                                                                                    |
|-------------------------------------------|------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | The product is non-reactive under normal conditions of use, storage and transport. |
| <b>Chemical stability</b>                 | Stable.                                                                            |
| <b>Possibility of hazardous reactions</b> | No dangerous reactions known under normal conditions of use.                       |
| <b>Conditions to avoid</b>                | Heat.                                                                              |
| <b>Incompatible materials</b>             | Strong acids. Strong oxidising agents.                                             |
| <b>Hazardous decomposition product(s)</b> | On combustion releases: Toxic fumes.                                               |

## **SECTION 11: TOXICOLOGICAL INFORMATION**

Information on toxicological effects:

|                              |                 |
|------------------------------|-----------------|
| Acute toxicity (oral):       | Not classified. |
| Acute toxicity (dermal):     | Not classified. |
| Acute toxicity (inhalation): | Not classified. |

|                            |                        |
|----------------------------|------------------------|
| Skin corrosion/irritation: | Causes skin irritation |
|----------------------------|------------------------|

|                               |                               |
|-------------------------------|-------------------------------|
| Serious eye damage/irritation | Causes serious eye irritation |
|-------------------------------|-------------------------------|

|     |     |
|-----|-----|
| pH: | < 7 |
|-----|-----|

|                                    |                 |
|------------------------------------|-----------------|
| Respiratory or skin sensitisation: | Not classified. |
|------------------------------------|-----------------|

|                         |                                  |
|-------------------------|----------------------------------|
| Germ cell mutagenicity: | Not classified. Carcinogenicity: |
|-------------------------|----------------------------------|

|                        |                |
|------------------------|----------------|
| Reproductive toxicity: | Not classified |
|------------------------|----------------|

|                        |                |
|------------------------|----------------|
| STOT- single exposure: | Not classified |
|------------------------|----------------|

|                         |                |
|-------------------------|----------------|
| STOT-repeated exposure: | Not classified |
|-------------------------|----------------|

|                    |                 |
|--------------------|-----------------|
| Aspiration hazard: | Not classified. |
|--------------------|-----------------|

|                         |                 |
|-------------------------|-----------------|
| respiratory irritation. | Not classified. |
|-------------------------|-----------------|

## **SECTION 12: ECOLOGICAL INFORMATION**

Toxicity:

|                    |                                                                                                                       |
|--------------------|-----------------------------------------------------------------------------------------------------------------------|
| Ecology – general: | The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
|--------------------|-----------------------------------------------------------------------------------------------------------------------|

Hazardous to the aquatic environment, Not classified

short-term (acute): Not classified.

Hazardous to the aquatic environment, Not classified.

Long-term (chronic):.

|                                |                                     |
|--------------------------------|-------------------------------------|
| Persistence and degradability: | No additional information available |
|--------------------------------|-------------------------------------|

|                            |                                     |
|----------------------------|-------------------------------------|
| Bioaccumulative potential: | No additional information available |
|----------------------------|-------------------------------------|

|                                   |                     |
|-----------------------------------|---------------------|
| Mobility in soil: Ecology – soil: | Soluble in water. . |
|-----------------------------------|---------------------|

Results of PBT and vPvB assessment: No additional information available.

|                        |                                      |
|------------------------|--------------------------------------|
| Other adverse effects: | No additional information available. |
|------------------------|--------------------------------------|

## **SECTION 13: DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods**

Discharge of this product to sewage treatment works is dependent on local regulations with regard to pH controls.

Dispose of this material and its container to hazardous or special waste collection point.

Disposal should be in accordance with local, state or national legislation.

## **SECTION 14: TRANSPORT INFORMATION**

|                                     |                                                                       |
|-------------------------------------|-----------------------------------------------------------------------|
| <b>UN number</b>                    | Not applicable                                                        |
| <b>Proper Shipping Name</b>         | Not applicable.                                                       |
| <b>Transport hazard class(es)</b>   | Not applicable.                                                       |
| <b>Packing group</b>                | Not applicable.                                                       |
| <b>Environmental hazards</b>        | Not classified as a Marine Pollutant.                                 |
| <b>Special precautions for user</b> | No special packaging requirements.<br>Unsuitable containers: Aluminum |

## **SECTION 15: REGULATORY INFORMATION**

**Chemical Safety Assessment** A chemical safety assessment has been carried out for the substance or the mixture by the supplier.

**Safety, health and environmental regulation/legislation specific for the substance or mixture**  
No additional information available.

## **SECTION 16: OTHER INFORMATION**

The Information on This Safety Data Sheet Is Believed to Be Accurate and It Is the Best Information Available.

No Liability Resulting from The Use or Handling of The Product to Which This Safety Data Sheet Relates. Users and Handlers of This Product Should Make Their Own Investigations to Determine the Suitability of The Information Provided Herein for Their Own Purposes.