

MATERIAL SAFETY DATA SHEET (MSDS)

POTASSIUM SILICATE POWDER

SECTION 1: IDENTIFICATION OF THE SUBSTANCE

Product identifier**Product Name****POTASSIUM SILICATE POWDER****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)**

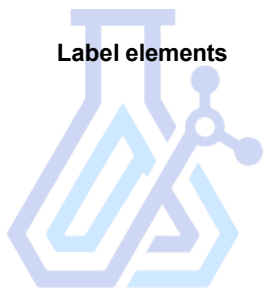
General purpose industrial chemical for use in a wide range of applications.

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****WYOMING**
CHEMICALS DISTRIBUTION**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 Powder Powder	>99	1312-76-1	Eye Irrit. 2 ; Skin Irrit. 2 ; 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

National occupational exposure and biological limit values: No additional information available.

- **Recommended monitoring procedures:** No additional information available.
- **Air contaminants formed:** No additional information available.

- **Eye and face protection:**
- **Eye protection:** Safety glasses.
- **Skin protection:** Skin and body protection: Wear suitable protective clothing.
- **Hand protection:** Protective gloves.
- **Respiratory protection:** Respiratory protective device with a particle filter.
- Thermal hazards: No additional information available.
- **Environmental exposure controls:** Avoid release to the environment.

- **DNEL and PNEC:**
- **POTASSIUM SILICATE POWDER (1312-76-1)**
- **DNEL/DMEL (Workers):**
- Long-term - systemic effects, dermal: 1.49 mg/kg bodyweight/day
- Long-term - systemic effects, inhalation: 5.61 mg/m³
- **DNEL/DMEL (General population)**
- Long-term - systemic effects, oral: 0.74 mg/kg bodyweight/day
- Long-term - systemic effects, inhalation: 1.38 mg/m³
- Long-term - systemic effects, dermal: 0.74 mg/kg bodyweight/day

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Powder. White.
Odour	Odourless.
Odour Threshold (ppm)	Not applicable.
pH (Value)	< 7
Freezing Point (°C)	Not applicable.
Melting Point (°C)	> 1000
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)	No data.
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.
Other information	No data.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable.
Possibility of hazardous reactions	No dangerous reactions known under normal conditions of use.
Conditions to avoid	Heat.
Incompatible materials	Strong acids. Strong oxidising agents.
Hazardous decomposition product(s)	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.

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LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
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

UN number	Not applicable
Proper Shipping Name	Not applicable.
Transport hazard class(es)	Not applicable.
Packing group	Not applicable.
Environmental hazards	Not classified as a Marine Pollutant.
Special precautions for user	No special packaging requirements. 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.