

MATERIAL SAFETY DATA SHEET (MSDS)

SODIUM SILICATE GRANULES

PRODUCT NAME : Sodium Silicate Neutral And Alkaline Powder Granules

CAS NO. : 1344-09-8

EINECS No. : 215-687-4

MANUFACTURER NAME : SHREENATH MARKETING,

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CHEMICAL COMPOSITION : Sodium Silicate Powder is produced by the Spray Drying of
Sodium Silicate Neutral And Alkaline Glass Liquid. Then convert
In granules.

MOLECULAR FORMULA : $\text{Na}_2\text{SiO}_3\cdot\text{H}_2\text{O}$

HAZARDS IDENTIFICATION:-

Classification of the substance or mixture

GHS Classification : Carcinogen Category 1
Eye Irritation Category 2
STOT - single exposure Category 3

Label elements

Hazard pictogram(s)



Signal word(s) Danger

Hazard statement(s)

H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H350: May cause cancer.

Precautionary statement(s): P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

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.

P308+P313: IF exposed or concerned: Get medical advice/attention.

P362: Take off contaminated clothing and wash before reuse.

P405: Store locked up.

P501: Dispose of contents/container to: Dispose of contents in accordance with local, state or national legislation.

Other hazards: Not applicable.

COMPOSITION/INFORMATION ON INGREDIENTS:-

Ingredient(s)	%W/W	CAS No.	Hazard symbol(s) and hazard statement(s)
Silicic acid, sodium salt Powder	>99	1344-09-8	Eye Dam. 1 ; Skin Irrit. 2 ; STOT SE 3
Crystalline silica	<1	14808-60-7	STOT RE1

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.

Indication of any immediate medical attention and special treatment needed

Obtain immediate medical attention.

FIRE-FIGHTING MEASURES:-

Extinguishing media

Suitable Extinguishing Media : Compatible with all standard firefighting techniques.

Unsuitable extinguishing Media : None known.

Special hazards arising from the substance or mixture

Not applicable. Inorganic powder or granules. Non-combustible.

Advice for fire-fighters : None.

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.

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.

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

Specific end use(s): See also Annex to the extended Safety Data Sheet.

EXPOSURE CONTROLS:-

Control parameters:

SUBSTANCE.	Occupational Exposure Limits
Silicic acid, sodium salt	No Occupational Exposure Limit assigned. An exposure limit of 2 mg/m ³ (15 min TWA) is recommended by analogy with sodium hydroxide (UK EH40).
Crystalline silica	OSHA PEL 10 mg/m ³ / %SiO ₂ +2 (Respirable) ACGIH TLV 0.05 mg/m ³ Respirable

Exposure controls: Wear protective equipment to comply with good occupational hygiene practice. Do not eat, drink or smoke at the work place.

Appropriate engineering controls: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.

PERSONAL PROTECTION:-

Respiratory protection: Avoid inhalation of dusts. Wear suitable respiratory protective equipment if working in confined spaces with inadequate ventilation or where there is any risk of the exposure limits being exceeded. Advice on respiratory protective equipment is given in the HSE (Health and Safety Executive) publication HS(G)53. Dust mask: FFP2 (EN 149).

Eye/face protection: Chemical goggles (EN 166).

Skin protection: Wear suitable protective clothing and gloves. Plastic or rubber gloves. For example EN374-3, level 6 breakthrough time (>480min). Wear suitable overalls. For example EN ISO 13982 (dust), EN 14605 (liquid splashes).

Environmental Exposure Controls:-

The primary hazard of sodium silicate is the alkalinity. Avoid generation of dust. Avoid release to the environment.

PHYSICAL AND CHEMICAL PROPERTIES:-

Information on basic physical and chemical properties

Appearance Powder	: White.
Odour	: Odourless.
Odour Threshold (ppm)	: Not applicable.
pH (Value)	: Alkaline.
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.

STABILITY AND REACTIVITY:-

Possibility of hazardous reactions/Reactivity/ Chemical stability/ Conditions to avoid/ Incompatible materials: When arc welding vessels containing aqueous solutions of this material, take care to control any explosion risk from hydrogen evolved by electrolysis. Aqueous solutions will react with aluminum, zinc, tin and their alloys evolving hydrogen gas which can form an explosive mixture with air. Can react violently if in contact with acids. Can react with sugar residues to form carbon monoxide.

Hazardous decomposition product(s) : Hydrogen

TOXICOLOGICAL INFORMATION:-

Information on toxicological effects Acute toxicity:

Ingestion : All symptoms of acute toxicity are due to high alkalinity. Material will cause irritation. Oral LD50 (rat) 3400 mg/kg bw

Inhalation: Dust is irritant to the respiratory tract. All symptoms of acutotoxicity are due to high alkalinity. Inhalation LC50 (rat) >2.06 g/m³

Skin Contact: Material will cause irritation. Dermal LD50 (rat) >5000 mg/kg bw

Eye Contact: Material will cause severe irritation. Risk of serious damage to eyes.

Skin corrosion/irritation: Irritating to skin.

Serious eye damage/irritation: Irritating to eyes.

Sensitization: Not sensitizing.

Mutagenicity: No evidence of genotoxicity. In vitro/in vivo negative.

Carcinogenicity: Cancer hazard. Contains crystalline silica which can cause cancer and delayed lung injury (silicosis). Crystalline silica is listed by US NTP as a known human carcinogen, and it is classified by IARC in Group 1: materials for which there is sufficient evidence in humans for carcinogenicity.

Reproductive toxicity: No evidence of reproductive toxicity or developmental toxicity.

STOT - single exposure: Irritating to respiratory system.

STOT - repeated exposure: Prolonged or repeated inhalation of crystalline silica causes lung diseases including silicosis, emphysema, obstructive airway disease and lung cancer.

Aspiration hazard: Not classified

Other information: Prolonged or repeated inhalation of crystalline silica causes lung diseases including silicosis, emphysema, obstructive airway, disease and lung cancer.

ECOLOGICAL INFORMATION:-

Toxicity: Fish (Brachydanio rerio) LC50 (96 hour) 1108 mg/l Aquatic invertebrates: (Daphnia magna) EC50 (48 hour) 1700 mg/l

Persistence and degradability: Inorganic. Soluble silicates, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica.

Bioaccumulative potential: Inorganic. The substance has no potential for bioaccumulation.

Mobility in soil: Not applicable.

Results of PBT and vPvB assessment: Not classified as PBT or vPvB.

Other adverse effects: The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH.

DISPOSAL CONSIDERATIONS:-

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.

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

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

REGULATORY INFORMATION:-

Chemical Safety Assessment: A Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Large spill cleanup:-

Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate Personal Protective Equipment (PPE). In case of contact with water, prevent runoff from entering into storm sewers and ditches which lead to natural waterways. Neutralize contaminated area and flush with large quantities of water. Comply with applicable environmental regulations.

Product Use : Cleaner, Detergents, Soaps, Ceramic, Specialty Chemicals, refractory, clay
Pesticide coating, Floor Polishing, Grinding Agent, Acid proof cement, floor
Polishing, ceramic tiles, detergent.

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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 Here in for Their Own Purposes.



SHREENATH MARKETING

(Mfg. Sodium Silicate Product)
