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MATERIAL SAFETY DATA SHEET
(SODIUM SILICATE)
Prepared according to US & GHS requirements
(ISDS meeting OSHA GHS 29 CFR 1910.1200)

1. Chemical And Product And Company Information

Company Identification : Advatech Industries Pvt Ltd.
Survey No. 243, Village- Dhanali, Ta- Kadi,
Dist.- Mehsana – Gujarat. -382715.

Product Identifier : Sodium Silicate
Product Use : Industrial applications such as adhesive, binder, pulp & paper, water treatment, catalysts and gels

2. Composition / Information on Ingredients

Hazardous Ingredients : Sodium Silicate
CAS Number : 1344-09-8
HS CODE No : 28391900
Synonym (s) : Silicate of Soda
Reaction : $Na_2CO_3 + SiO_2 \longrightarrow Na_2SiO_3 + CO_2$

Component	Percentage	CAS No.
Sodium Silicate	99.5%	1344-09-8
Moisture	0.05%	7732-18-5

Chemical Composition : Non-Dusty homogenic formulation of soda ash with quartz sand.

Chemical Characterization : Molar Ratio Na2o : Sio2 = 1:2.20 to 1:3.30

3. Hazard Identification

Inhalation : Inhalation can cause severe irritation of mucous lung damage. membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. High concentrations may cause

Skin Contact / Absorption : Contact with skin causes servere irritation such as redness, itching, blistering, burns and pain.

Eye Contact : Alkaline eye exposures produce severe irritation with effects similar to those of dilute caustics. . Inflammation or burns with possible damage to the eye tissues can occur together with tearing and considerable pain.

Ingestion : Ingesting product causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

Exposure Limits : Not available

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4. First Aid Measures

Inhalation : Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.

Skin Contact / Absorption : Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.

Eye Contact : Flush immediately with water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention.

Ingestion : If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Additional Information : Not available

5. Fire Fighting

Conditions of Flammability : Non-flammable

Means of Extinction : Use extinguishing media appropriate for surrounding fire.

Flash Point : Not applicable

Auto-ignition Temperature : Not applicable

Upper Flammable Limit : Not applicable

Lower Flammable Limit : Not applicable

Hazardous Combustible Products : Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead and zinc.

Special Fire Fighting Procedures : Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

Explosion Hazards : Not applicable

6. Accidental Release Measures

Leak / Spill :
Wear appropriate personal protective equipment if required. Ventilate area. Stop or reduce leak if safe to do so. Prevent material from entering sewers. Flush with water to remove any residue. Small spill: Absorb with an inert material and place in an appropriate waste disposal container. Finish cleaning the spill area with running water.

Large spill :
Stop leak if without risk. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Prevent entry into sewers, basements or confined areas; dike if needed. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Deactivating Materials :
Residue can be neutralized with a dilute solution of acetic acid.

7. Handling and Storage

Handling Procedures :
Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Storage Requirements :
Keep container tightly closed. Keep container in a cool, well-ventilated area. Store in clean steel or plastic containers. Separate from acids, oxidizers, reactive metals and ammonium salts. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers.

8. Personal Protection and Exposure Controls

Protective Equipment

Eyes :
Chemical goggles, full-face shield, or a full- face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

Respiratory :
A NIOSH/MSHA respirator with organic vapor cartridge should be used.

Gloves :
Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Clothing :
Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly Before reuse.

Footwear :
Impervious boots of chemically resistant material should be worn.

Engineering Controls

Ventilation Requirements :
Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other :
Emergency shower and eyewash should be in close proximity.

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9. Physical and Chemical Properties

Parameters	Specification
Appearance	Translucent Clear Glass
Colour	Clear
Relative Density	-
Na2O (%)	31.05 ± 0.5
SIO2(%)	68.40 ± 0.5
W.R	1:2.2 ± 0.1

10. Stability and Reactivity

Stability : Product is stable under normal conditions

Incompatibility : Highly reactive with acids. Reactive with oxidizing agents

Hazardous Products of Decomposition : Hydrogen gas

Polymerization : Will not occur

11. Toxicological Information

Irritancy	Strong irritant
Sensitization	Not available
Chronic/Acute Effects	Not available
Synergistic Materials	Not available
Animal Toxicity Data	1500mg/kg (rat, oral)
Carcinogenicity	Not considered a carcinogen by NTP or IARC
Reproductive Toxicity	Not available
Teratogenicity	Not available
Mutagenicity	Not available

12. Ecological Information

Fish Toxicity	Not available
Biodegradability	Not available
Environmental Effects	High pH of this material is harmful to aquatic life.

13. Disposal Consideration

Waste Disposal : Dispose in accordance with all federal, provincial, and/or local regulations including the Gujarat Environmental Protection Act.

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14. Transportation Information

TDG Classification :

Class	Not regulated
Group	Not regulated
PIN Number	Not regulated
Other	Secure containers (full and/or empty) with suitable hold down devices during shipment.

15. Regulatory Information

WHMIS Classification D2

NOTE :-

The product listed on this msds has been classified in accordance with the hazard criteria of the canadian controlled products regulations. This msds contains all information required by those regulations.

16. Other Information

Note :

The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all.

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