SODIUM SILICATE – SOLID (ALKALINE)

MATERIAL SAFETY DATA SHEET (MSDS)

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Company Identification:	**AFRICAN FERTILIZER & CHEMICALS NIGERIA LIMITED** Plot No.: 4, 5, 6 – Zone 3, OPIC Industrial Estate, Agbara Ogun State, Nigeria. Tel No.: +234 8154398830 Email: n.chaudhary@africanindustries.com / stratcomm@africanindustries.com
Product Identifier:	Sodium Silicate – Solid
Trade Name & Synonyms:	Sodium Silicate Glass, Sodium Silicate Lumps, Waterglass, Sodium Silicate
Product Use:	Soap / Detergents, Cosmetics, Adhesive, Foundries, Ceramic, Construction, Packaging Industries, Mining, General, Cleaning Industries, Paint

1. HAZARDS IDENTIFICATION

Emergency Overview:

Color:	Colorless to Light Blue Solid
Physical State:	Glass / Lumps Odorless
Appearance:	
Odor:	Harmful if swallowed.

Major Health Hazards: Sharp corners of slippery glass may cut skin or body parts.
No other physical hazard.

Physical Hazards:

Precautionary Statements: Do not get in eyes, use hand protection as sharp corners of glass may cut skin.
Wear eye and face protection.

Precautionary Statement(s) – Response:

If in Eyes:	Rinse with water for several minutes. Remove contact lenses, if present and easy to do. Make sure no particle of glass stays in eye.
If on Skin:	Remove/Take off all contaminated clothing. Rinse skin with water/shower.
If Skin irritation occurs:	Get medical advice/attention
If Swallowed:	Call a doctor/physician if you feel unwell Rinse mouth

Precautionary Statement(s) – Storage: There are no Precautionary-Storage phrases assigned

Precautionary Statement(s) – Disposal: Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations.

Hazards Not Otherwise Classified (HNOC): None identified

1. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER
SODIUM SILICATE	99.50%	1344-09-8
MOISTURE	0.05%	7732-18-5

Chemical Composition: Non-dusting homogeneous formulation of Soda Ash with Silica Sand.

1. FIRST AID MEASURES

Skin Contact: Remove contaminated clothing, jewelry, and shoes. Wash contaminated areas with water. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eye Contact: Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues.
Washing eyes within several seconds is essential to achieve maximum effectiveness. Make sure no small particle stays inside eye.
GET MEDICAL ATTENTION IF NECESSARY.

Ingestion: Never give anything by mouth to an unconscious or convulsive person. If swallowed, do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops.
GET MEDICAL ATTENTION.

Interaction with Other Chemicals Which Enhance Toxicity: None known.

Protection of First - Aiders: Use personal protective equipment. Refer to Section 8 for specific personal protective equipment recommendations.

1. FIRE-FIGHTING MEASURES

Fire Hazard: Negligible fire hazard.

Extinguishing Media: Use media appropriate for surrounding fire.

Fire Fighting: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Sensitivity to Mechanical Impact: Not sensitive.

Sensitivity to Static Discharge: Not sensitive.

Lower Flammability Level (Air): Not flammable

Upper Flammability Level (Air): Not flammable

Flash Point: Not flammable

Auto-Ignition Temperature: Not applicable

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1. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Do not get in eyes, on skin or on clothing. Avoid breathing mist, vapor, or spray. Dries to form glass film which can easily cut skin. Spilled material may cause a slipping hazard. Wear appropriate personal protective equipment recommended in Section 8, Exposure Controls / Personal Protection, of the MSDS.

Methods and Materials for Containment and Cleaning Up: Pick up with protective gloves or shovel as sharp corners of glass may cut skin and transfer goods to another container/bag. See Section 13, Disposal considerations, for additional information.

Environmental Precautions: This material is alkaline and may raise the pH of surface waters with low buffering capacity. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies.

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1. HANDLING AND STORAGE

Precautions for Safe Handling: Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Use care when handling hot material. Do not eat, drink or smoke in areas where this material is used. Use appropriate personal protective equipment (PPE). See Section 8, Exposure Control / Personal Protection Equipment, for additional information.

Safe Storage Conditions: Store and handle in accordance with all current regulations and standards. Keep container tightly closed and properly labeled. Store in a cool, dry, well-ventilated place.

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1. EXPOSURE CONTROL / PERSONAL PROTECTION EQUIPMENT (PPE)

Regulatory Exposure Limit(s): None. This product does not contain any components that have Regulatory occupational exposure limits (OEL's) established.

PPE - Eye Protection: Wear safety glasses with side-shields. If eye contact is likely, wear chemical resistant safety goggles. Wear chemical safety goggles with a face-shield to protect against eye and skin contact when appropriate. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

PPE - Skin and Body Protection: Wear protective clothing to minimize skin contact. When skin contact is likely, wear similar protective suit. Wear appropriate heat resistant

	clothing when potential exists for contact with hot materials.
PPE - Hand Protection:	Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove. Use gloves that are cut resistant if handling dry glass material.

1. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid
Appearance:	Glass / Lumps
Color:	Colorless to Light Blue
Odor:	Odorless
Odor Threshold [ppm]:	No data available.
pH at 20 °C:	12.5 +
Flash point:	Not flammable
Auto-ignition Temperature:	Not applicable
Boiling Point/Range:	Not applicable
Melting Point/Range:	Above 700 °C
Flash point:	Not flammable
Explosion Limit:	Not applicable
Relative Density /Specific Gravity (Water = 1):	2.1 – 2.3
Water Solubility:	Miscible with water
Solubility in Water at 20 °C:	Slight in cold water
Vapor Pressure:	Not applicable
Density at 20 °C:	2.61 g / cm^3
Evaporation Rate:	No data available
Vapor Density:	Not applicable
Volatility %:	Not applicable

1. STABILITY AND REACTIVITY:

Reactivity:	Not reactive under normal temperatures and pressures.
Chemical Stability:	Stable at normal temperatures and pressures.
Possibility of Hazardous Reactions:	Contact with acids will cause gelling and evolution of heat. Prolonged

contact with incompatible metals may produce flammable hydrogen gas.

Incompatibilities / Materials to Avoid: Can generate heat when mixed with acids. Avoid prolonged contact with alkali sensitive metals such as: aluminum, brass, bronze, copper, lead, tin, zinc because flammable hydrogen gas can be generated.

Hazardous Decomposition Products: None known

Hazardous Polymerization: Will not occur.

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1. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

Eye contact: May cause severe irritation, pain and corneal burns (possibly leading to blindness). The full extent of the injury may not be immediately apparent.

Skin contact: Slightly Irritating

Inhalation: Not Applicable

Ingestion: Harmful if swallowed. May cause immediate pain and severe burns of the upper and lower gastrointestinal tract with vomiting, nausea, and diarrhea.

Chronic Effects: No Human data reported.

Interaction with Other Chemicals Which Enhance Toxicity: None known

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1. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

Aquatic Toxicity: This material has exhibited moderate toxicity to aquatic organisms.

FATE AND TRANSPORT:

Biodegradation: This material is inorganic and not subject to biodegradation.

Persistence: This material is believed to persist in the environment.

Bioconcentration: This material is not expected to bioconcentrate in organisms.

Additional Ecological Information: This material has exhibited slight toxicity to terrestrial organisms. Avoid contaminating waterways, drain, sewers.

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1. DISPOSAL CONSIDERATIONS

Waste from material: Reuse or recycle if possible. May be subject to disposal regulations. Dispose in accordance with all applicable regulations.

Container Management: Dispose of container in accordance with applicable local, regional, national, and/or international regulations. Container reinstate must be disposed of in compliance with applicable regulations.

1. TRANSPORT INFORMATION

DOT

UN-No:	NA
Proper Shipping Name:	NA
Hazard Class:	NA
Packing Group:	NA

TDG

UN-No:	NA
Proper Shipping Name:	NA
Hazard Class:	NA
Packing Group:	NA

IATA

UN-No:	NA
Proper Shipping Name:	NA
Hazard Class:	NA
Packing Group:	NA

IMDG/IMO

UN-No:	NA
Proper Shipping Name:	NA
Hazard Class:	NA
Packing Group:	NA

1. REGULATORY INFORMATION

OSHA Regulatory Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not Regulated.

SARA EHS Chemical (40 CFR 355.30): Not Regulated

EPCRA SECTION 313 (40 CFR 372.65): Not Regulated

OSHA Process Safety (PSM) (29 CFR 1910.119): Not Regulated

FDA: Sodium Silicates have Generally Recognized as Safe (GRAS) status under specific FDA regulations. Refer to 21 Code of Federal Regulations (CFR) 173, 175, 176, 177, 182, and 184, which is accessible on the FDA's website. This product is not produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the Food and Drug Administration (FDA).

NATIONAL INVENTORY STATUS

A. INVENTORY STATUS – Toxic Substance Control Act (TSCA): All components are listed or exempt.

TSCA 12(b): This product is not subject to export notification.

1. OTHER INFORMATION

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the African Fertilizer & Chemicals's Classification committee using available literature references.

The MSDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Users and Handlers of This Product Should Make Their Own Investigations to Determine the Suitability of The Information Provided Herein for Their Own Purposes.

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