SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier:

CibuSil™

1.2 Relevant uses of the substance or mixture and uses advised against: For use as a Horticultural/Agricultural/Forestry

1.3 Details of the supplier of the safety data sheet:

AgraForUm South Africa (Pty) Ltd 5 Ednau Small Holdings Mooiwater Bloemfontein Republic of South Africa 9330

Contact: Dr. RA Buitendag **Phone number:** +27 (0) 51 451 9053 **Email:** mail@agraforum-sa.com

1.4 Emergency phone number

Phone number: + 27 (0) 82 802 1093

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture CLASSIFIED AS AN IRRITANT.

2.2 Label Elements

Contains: Mono silicic acid & Potassium

2.3 Other Hazards

Extremely hazardous in case of skin or eye contact, ingestion or inhalation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Effective Adjuvant Component and hazardous components:

CAS No.	Significant Ingredients	% (optional)	OSHA PEL	ACGIH TLV
	Mono silicic acid (Si(OH) ₄)	~ 40 %	-	-
	Potassium	~ 9 %		
	Water	To 100 %		

FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Inhalation

If symptomatic, move to fresh air. Get medical attention if symptoms persist.

4.1.2 Skin & Eye exposure

Any material that contacts the eye should be washed out immediately with water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention promptly if symptoms occur after washing. Wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

4.1.3 Ingestion

Obtain IMMEDIATE medical advice. DO not induce vomiting unless directed to do so by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed

Prolonged contact with spray mist or vapours may produce chronic eye and skin irritation, respiratory tact irritation

4.3 Indication of any immediate medical attention and special treatment needed.

Information not available.

5.FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2 Special Hazards arising from the substance or mixture

Possible irritant vapours.

5.3 Advice for fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate personal protective equipment.

Spill Clean-up Methods: Small spills: Dilute with water and mop up or absorb with an inert dry material and place in appropriate waste disposal container. Neutralize the residue with diluted a solution of acetic acid. Follow local and regional authority requirements. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Large Spillages: Corrosive liquid. Stop leak if without risk. Absorb with Dry earth, sand or non-combustible material. Use water spray curtain to divert vapour drift. Neutralize the residue with diluted a solution. Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal. Environmental Precautions: Avoid discharge into drains, water courses or onto the ground.

7.HANDLING AND STORAGE

Handling: Keep container dry. Do not breathe gas/fumes/vapour/spray. Never add water to product in case of insufficient ventilation. Use suitable respiratory equipment. Keep away from oxidizing agents and acids. . Storage: Store away from incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Eye Protection: Risk of contact: Wear approved safety goggles.

Hand Protection: It is a good industrial hygiene practice to prevent skin contact. Use rubber gloves.

Skin Protection: Apron and long sleeves are recommended.

Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Environmental Exposure Controls: Environmental manager must be informed of all major spillages.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance; Liquid, brown

Odour; Odourless

Melting point/freezing; no information specified

Initial boiling point and boiling range; No Information available

Flash point; No Information available

Evaporation rate; No Information available

Flammability (solid, gas); No Information available

Upper /lower flammability or explosive limits; No Information available

Density; 1.33 g/ml (19°C)

Solubility(ies); Soluble in water

pH: basic (>11)

Moisture content; 59%

Ash content: 94%

Decomposition temperature: No Information available

9.2 Other Information No other relevant information available

 10. STABILITY AND REACTIVITY

 10.1 Reactivity

 Stability: Stable.

 Conditions to Avoid: Mixing with acids. May react with ammonium and zinc salts.

 Incompatible Materials: Strong oxidizing agents & acids.

 Hazardous Decomposition Products: No data available.

 Possibility of Hazardous Reactions: No Information.

 Corrosivity: Non-corrosive in presence of glass. Corrosive in presence of steel, aluminium, zinc and copper.

11. TOXICOLOGICAL INFORMATION 11.1 Information on toxicological effects

Acute Toxicity: LD50 oral Rat 1300-2000 mg/kg. Other toxic effects on humans: Extremely hazardous in case of skin contact, of ingestion, of inhalation. Chronic Toxicity: No Information available.

<u>12.ECOLOGICAL INFORMATION</u> Ecotoxicity: No data available. Mobility: No data available. Persistence and Degradability: No data available. Other Adverse Effects: No data available.

13.DISPOSAL CONSIDERATIONS

General Information: Do not discharge into drains, water courses or onto the ground. Discharge, treatment or disposal may be subject to national, state, or local laws. Empty containers may contain product residues.

Disposal Methods: No specific disposal method required.

Container: Since emptied containers retain product residue, follow label warnings even after container is emptied.

<u>14. TRANSPORT INFORMATION</u> DOT Not regulated. TDG Not regulated. IATA Not regulated. IMDG Not regulated. Pack only in steel and/or plastic drums.

15. REGULATORY INFORMATION

15.1 WHIS: CLASS D-2B. DSCL (EEC): R35 – CAUSE SEVERE BURNS. HMIS (USA): HEALTH HAZARD 3.

15.2 Chemical Safety Assessment

CSA not undertaken for this substance.

16. OTHER INFORMATION

This Material Safety data sheet is compiled using data submitted for raw materials and practical experience. This product is intended for professional users only.

MSDS information:

To the best of our knowledge, the information contained herein is accurate and is based on the present state of our knowledge and does not therefore guarantee specific properties. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for any accuracy or completeness of the information contained herein.

Final determinations of suitability of any material are sole responsibility of the users, who must take responsibility for observing existing laws and regulations. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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