Safety Data Sheet
Sturdy Stalk™ — Potassium Silicate Supplement

SECTION 1. IDENTIFICATION

Product Identifier	Sturdy Stalk
Other Means of Identification	*Not Available*
Recommended Use	Hydroponic plant nutrients.
Restrictions on Use	*Not Applicable*
Initial Supplier Identifier	**Emerald Harvest** 1399 Corporate Center Parkway Santa Rosa, California 95407 USA Telephone: +1 866-325-8235
Emergency Telephone Number	**CHEMTREC, U.S.: 1-800-424-9300** **International: +1-703-527-3887 (Collect Calls Accepted)**

SECTION 2. HAZARD IDENTIFICATION

GHS Classification	**SKIN CORROSION/IRRITATION - CATEGORY 2** **SERIOUS EYE DAMAGE/IRRITATION - CATEGORY 1** **SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - CATEGORY 3**
Label Elements **Pictograms**	
Signal Word	**DANGER**
Hazard Statements	H315 - Causes skin irritation. H318 - Causes serious eye damage. H335 - May cause respiratory irritation.
Precautionary Statements	
Prevention:	P261 – Avoid breathing dust/fumes/mist/vapour/spray. P264 – Wash hands thoroughly after handling. P271 – Use only outdoors or in a well-ventilated area. P280 – Wear protective gloves/eye protection/face protection.
Response:	P302 + P352 – IF ON SKIN: Wash with plenty of water. P332 + P313 – If skin irritation occurs: Get medical advice/attention. P362 + P364 – Take off contaminated clothing and wash is before reuse. P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 – Immediately call a POISON CENTER/doctor. P304 + P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 – Call a POISON CENTER/doctor if you feel unwell.
Storage:	P403 + P233 – Store in a well-ventilated place. Keep container tightly closed. P405 – Store locked up.
Disposal:	P501 – Dispose on contents/container according to local/regional/national regulations.

Other Hazards	*Not Applicable*
NOTES	SDS is to be retained and available for use by employees and other users of the product.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration (w/w%)	Common name / Synonyms
Potassium Silicate, Anhydrous	1312-76-1	< 20%*	*Not Applicable*
Non-hazardous ingredients or those below disclosure requirements	*Not Applicable*	Balance	*Not Applicable*

Notes	

SECTION 4. FIRST-AID MEASURES

Inhalation	If breathed in, move person into fresh air. If concerned, seek medical attention.
Skin Contact	Rinse with plenty of water. If concerned, seek medical attention.
Eye Contact	Rinse with plenty of water for at least 15 minutes. Remove contact lenses if easily possible. Immediately get medical attention.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. If large amounts are ingested, get medical attention immediately.
Most Important Symptoms and Effects, Acute and Delayed	Acute: EYE CONTACT: May cause irritation, itching, redness, watering. Serious exposures can cause permanent damage. INHALATION: Coughing, irritation, itching throat, tightness of chest. SKIN CONTACT: May cause irritation, rash, redness, itching. Chronic: Repeated exposure may cause damage to lungs or affect existing skin and lung conditions.
Immediate Medical Attention and Special Treatment	Treat symptomatically. Note: Effects of potassium silicate are dependant upon ratio of silica to alkali and the pH.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media	
Suitable Extinguishing Media	Not flammable, use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Media	*Not Applicable*
Flammability classification (OSHA 29 CFR 1910.106)	Not flammable.
Hazardous Combustion Products	None expected.
Specific Hazards Arising from the Product	*Not applicable*.
Special Protective Equipment and Precautions for Fire-Fighters	Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	Implement spill control plan. All persons dealing with the clean-up should be trained and wear the appropriate personal protective equipment. Do not touch spilled product. Ensure adequate ventilation. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.
Methods for Containment and Cleaning Up	Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Ventilate area of release. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into an appropriate container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling	Use with adequate ventilation. Wear suitable protective equipment during handling. Avoid breathing mist or vapours. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep containers closed when not in use.
Conditions for Safe Storage	Store in a cool, dry, well ventilated area, away from incompatibles. Inspect periodically for damage or leaks. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Keep in original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	**ACGIH® TLV®**		**OSHA PEL**	**NIOSH REL**
Potassium Silicate, Anhydrous	*Not Established*	*Not Established*	*Not Established*	*Not Established*
Note: Analogy can be made to potassium hydroxide exposure limit of 2mg/m^3 (15 min TWA)				

Notes	*Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.
Appropriate Engineering Controls	Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.
Individual Protection Measures	
Eye/Face Protection	Eye and face protection should be worn for all uses. Wearing contact lenses is not recommended.
Skin Protection	Wear impervious gloves and wash hands after use.
Respiratory Protection	Not required under normal conditions of use. Do not breathe concentrated product. Avoid generations of mists. If product use will create mists, wear appropriate protective equipment to prevent inhalation of mists.
Other	An eyewash station should be made available in the immediate working area.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear Liquid	**Relative Density (water = 1)**	1.066 (8.9 lb/gal @ 68°F)
Odour	*Not Available*	**Solubility in Water**	Soluble
Odour Threshold	*Not Available*	**Solubility in Other Liquids**	*Not Available*
pH	10	**Partition Coefficient, n-Octanol / Water (Log Kow)**	*Not Available*
Melting Point and Freezing Point	*Not Available*	**Auto-ignition Temperature**	*Not Available*

Initial Boiling Point and Boiling Range	*Not Available*	**Decomposition Temperature**	*Not Available*
Flash Point	None up to 100°C (PMCC)	**Viscosity**	*Not Available*
Evaporation Rate	*Not Available*	**Flammability (solid, gas)**	*Not Applicable (Liquid)*
Vapour Density (air = 1)	*Not Available*	**Upper and Lower Flammability or Explosive Limit**	*Not Applicable*
Vapour Pressure	*Not Available*	**Sensitivity to Static/Impact**	Not Sensitive

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Not known or expected.
Chemical Stability	Stable under normal conditions.
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Avoid contact with incompatible materials.
Incompatible Materials	Oxidizing materials, acids, bases.
Hazardous Decomposition Products	*Not Applicable*

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

_X_ Inhalation _X_ Skin contact _X_ Eye contact _X_ Ingestion

Acute Toxicity	
LC50 (inhalation)	Potassium Silicate - >2.06 mg/m^3 (Rat)
LD50 (oral)	Potassium Silicate - >5000 mg/kg (Rat)
LD50 (dermal)	Potassium Silicate - >5000 mg/kg (Rat)
Notes	Not acutely toxic based on human or animal evidence.
Skin Corrosion / Irritation	May cause skin irritation, redness, rash.
Serious Eye Damage / Irritation	Redness. Pain. Tearing. Potential to cause serious damage.
Inhalation	May cause respiratory irritation.
Ingestion	Not Expected.
STOT (Specific Target Organ Toxicity) - Single Exposure	Not Expected.
Aspiration Hazard	Not reported.
STOT (Specific Target Organ Toxicity) - Repeated Exposure	Not Expected.
Respiratory and/or Skin Sensitization	Not known to be a sensitizer.
Carcinogenicity	IARC reports inadequate evidence for classification as human carcinogen.
Notes	Target Organs: Eyes, lungs, skin .

Reproductive Toxicity	
Development of Offspring	Not reported.
Sexual Function and Fertility	Not reported.
Effects on or via Lactation	Not reported.
Germ Cell Mutagenicity	Not expected to be a mutagen.
Interactive Effects	Not reported.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	Not expected to be toxic to the aquatic environment.		
	Ingredient	**Species**	**LC/EC$_{50}$**
	Potassium Silicate	Ides	146 mg/L (48h)
		Water Flea	>146 mg/L (24h)
Persistence and Degradability	Inorganic. Upon dilution will rapidly depolymerise into molecular species which are indistinguishable from natural dissolved silica.		
Bioaccumulative Potential	Not expected to bioaccumulate.		
Mobility in Soil	*Not Available*		
Other Adverse Effects	pH changes in water can cause negative local effects.		

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods	Canadian Environmental Protection Act: All ingredients are listed in the DSL. Dispose of in accordance with all federal, provincial/state, and local regulations. Consult with your local supplier for additional information.
RCRA	If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Technical Name (for N.O.S. entry)	Transport Hazard Class(es)	Packing Group
Canadian TDG Regulations*					
49 CFR/DOT*					
IATA Regulations*					
IMDG Code*					
	Note:				
Notes: *NOT REGULATED FOR TRANSPORT					

SECTION 15. REGULATORY INFORMATION

US Federal Information						
Components listed below are present on the following U.S. Federal chemical lists:						
Ingredients	**CAS Number**	**TSCA Inventory**	**CERCLA Reportable Quantity(RQ) (40 CFR 117.302):**	**SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:**	**SARA TITLE III: Sec. 313**	
					Form R - Reporting Requirements	**Supplier Notification**
Potassium Silicate	1312-76-1	Yes	No	No	No	No

Safety, Health and Environmental Regulations	Canadian Environmental Protection Act (CEPA): All components of this product are on the Canadian DSL.

NFPA Ratings	**Hazard or Risk Scale (0 = minimal, 4 = Significant)**	**HMIS Ratings**	**Hazard or Risk Scale (0 = minimal, 4 = Significant)**
Health	2	**Health**	2
Flammability	0	**Flammability**	0
Reactivity	0	**Physical Hazards**	0
Specific Hazard	0	**Personal Protection**	X

SECTION 16. OTHER INFORMATION

Date of Creation	May 17, 2018
Date of Latest Revision	*Not Applicable*
Disclaimer	This Safety Data Sheet (SDS) was prepared by iHazmat Regulatory Ltd., using information provided by the above supplier.To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. 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.

SDS compliant with WHMIS 2015 and OSHA HAZCOM 2012