Keystone
Safety Data Sheet

Date of Issue: 2020-03-20 **Version:** 1.2

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Form:	Liquid Mixture
Product Name:	K e y s t o n e
Product Code:	K e y s t o n e 0 0 1

1.2. Relevant Identified Uses Of The Substance Or Mixture And Uses Advised Against

Use of the substance / mixture:	Plant Bio-stimulant/surfactant/adjuvant

1.3. Details Of The Supplier Of The Safety Data Sheet

Address:	2258 Magnussen Place, North Vancouver, B.C. Canada
Emergency Phone Number:	+1 (778) 835-5251

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification Of The Substance Or Mixture

GHS-US classification:

Skin Corr.	1C H314
Eye Dam	1 H318

2.2. Label Elements

GHS-US labeling:

Hazard pictograms (GHS-US)

Signal word (GHS-US)	Danger
Hazard statements (GHS-US)	H314 - Causes severe skin burns and eye damage H303 - May be harmful if swallowed
Precautionary statements (GHS-US)	P260 - Do not breathe mist, vapors, spray P264 - Wash exposed skin thoroughly after handling P280 - Wear protective gloves, eye protection P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting P303+P361+P353 - IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing 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 or doctor / physician P363 - Wash contaminated clothing before reuse P501 - Dispose of contents / container to comply with local, state and federal regulations

2.3. Other Hazards

Other hazards not contributing to the classification	None

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substance

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product Identifier	%	GHS-US classification
Water	Water	33.3 – 53.8%	Not Classified
Oleic Acid	CAS # 112-80-1	15.0 – 20.0%	Not Classified
Tetra Hydro Furfuryl Alcohol	CAS # 97-99-4	5.0 – 10.0%	Acute Tox. 4, H302 Eye Irrit. 2, H319
Mono Ethanol Amine	CAS # 141-43-5	5.0 – 10.0%	Skin Corr. 1B H319 Eye Dam. 1, H318
Gluconic Acid	CAS # 526-95-4	5.0 – 10.0%	Not Classified
Alkyl Poly Glycoside		8.5%	Not Classified
Plant Oils Mixed. Non-Hazardous GRAS / FIFRA Allowed		1.7%	Not Classified
Proprietary mix natural plant and marine extracts, oils & emulsifier. Non-hazardous GRAS / FIFRA Allowed		6.5%	Not Classified

SECTION 4: FIRST AID MEASURES

4.1. Description Of First Aid Measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Assure fresh air breathing. Allow the victim to rest. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor / physician.

First-aid measures after skin contact: Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower. Immediately call a POISON CENTER or doctor / physician.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor / physician.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor / physician.

4.2. Most Important Symptoms And Effects, Both Acute And Delayed

Symptoms / injuries: Redness and irritation/ Causes severe skin burns and eye damage.

Symptoms / injuries after eye contact: Redness and irritation/ Causes serious eye damage.

4.3. Indication Of Any Immediate Medical Attention And Special Treatment Needed

Obtain medical assistance.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

Suitable extinguishing media:	Foam. Dry powder. Water spray.

5.2. Special Hazards Arising From The Substance Or Mixture

Reactivity:	Thermal decomposition generates: Corrosive vapors.

5.3. Advice For Fire Fighters

Firefighting instructions:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
Protection during firefighting:	Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment And Emergency Procedures

6.1.1. For Non-Emergency Personnel

Protective equipment:	Safety glasses. Gloves. Protective clothing.
Emergency procedures:	Evacuate unnecessary personnel.

6.1.2. For Emergency Responders

Protective equipment:	Equip clean-up crew with proper protection.
Emergency procedures:	Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters in significant quantities.

6.3. Methods And Material For Containment And Cleaning Up

Methods for cleaning up:	Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference To Other Sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions For Safe Handling

Precautions for safe handling:	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe mist, vapors, spray.
Hygiene measures:	Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions For Safe Storage, Including Any Incompatibilities

Technical measures:	Comply with applicable regulations.
Storage conditions:	Keep container closed when not in use.
Incompatible products:	Strong Acids
Incompatible products:	Sources of ignition. Direct sunlight.

7.3. Specific End Use(s)

No additional information available

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control Parameters

	Provide exhaust ventilation or other engineering controls to minimize the airborne concentrations of vapors.

8.2. Exposure Controls

Appropriate engineering controls:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Personal protective equipment:	Avoid all unnecessary exposure.
Hand protection:	Wear protective gloves.
Eye protection:	Chemical goggles or face shield.
Skin and body protection:	Wear suitable protective clothing.
Other information:	Do not eat, drink or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information On Basic Physical And Chemical Properties

Physical state:	Liquid
Color:	Cloudy / Brownish
Odor:	Ammonical / Citrus
Odor threshold:	No Data Available
pH:	9.95
Relative evaporation rate (butylacetate=1):	No Data Available
Melting point:	No Data Available
Freezing point:	No Data Available
Boiling point:	88-90°C
Flash point:	No Data Available
Self ignition temperature:	No Data Available
Decomposition temperature:	No Data Available
Flammability (solid, gas):	No Data Available
Vapor pressure:	No Data Available
Relative vapor density at 20 °C:	No Data Available
Relative density:	No Data Available
Density Solubility:	No Data Available
Log Pow:	No Data Available

9.2. Other Information

	No additional information available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

	Thermal decomposition generates: Corrosive vapors.

10.2. Chemical Stability	
	Stable under normal conditions.
10.3. Possibility Of Hazardous Reactions	
	May react with acids
10.4. Conditions To Avoid	
	Direct sunlight. Extremely high or low temperatures.
10.5. Incompatible Materials	
	Strong Acids
10.6. Hazardous Decomposition Products	
	Thermal decomposition generates: Corrosive vapors (based on 100% MEA)
SECTION 11: TOXICOLOGICAL INFORMATION	
11.1. Information On Toxicological Effects	
Acute Toxicity:	Not Determined
Skin corrosion / irritation:	Causes severe skin burns.
Serious eye damage / irritation:	Causes serious eye damage.
Respiratory or skin sensitization:	Not Classified
Germ cell mutagenicity:	Not Classified
Carcinogenicity:	Not Classified
Reproductive toxicity:	Not Classified
Specific target organ toxicity (single exposure):	Not Classified
Specific target organ toxicity (repeated exposure):	Not Classified
Aspiration hazard:	Not Classified
Potential Adverse human health effects and symptoms:	Based on available data, the classification criteria are not met.
Symptoms / injuries after eye contact:	Causes serious eye damage.
SECTION 12: ECOLOGICAL INFORMATION	
12.1. Toxicity	
NuVita Grow	
Toxicity	Not established. However modeling of individual ingredients (ECOSAR) shows low toxicity.
12.2. Persistence And Degradability	
NuVita Grow	
Persistence and degradability	Not established. However modeling of individual ingredients (EPISUITE) shows no P and readily biodegraded.
12.3. Bioaccumulative Potential	
NuVita Grow	
Bioaccumulative potential:	Not established. However modeling of individual ingredients (EPISUITE) shows little bioaccumulation potential.

12.4. Mobility In Soil	
	No Data Available.
12.5. Other Adverse Effects	
Other information:	None
SECTION 13: DISPOSAL CONSIDERATIONS	
13.1. Waste Treatment Methods	
Waste disposal recommendations:	Dispose in a safe manner in accordance with local / national regulations.
Ecology - waste materials:	Avoid release to the environment. Does not damage plants.
SECTION 14: Transport information	
In accordance with DOT:	
Classification:	8, III
DOT Proper Shipping Name:	R e v 5
Department of Transportation (DOT) Hazard Classes:	8 - Class 8 - Corrosive material 49 CFR 173.136 8 - Corrosive substances 
Packing group (DOT)	III – Minor Danger
Additional Information	
Other information	The Hazardous classification is based on 100% MEA as the most hazardous ingredient in this mixture, this product has <10% after mixing it is no longer in the form of MEA. The resultant product does however have a relatively high pH so would be classified in a mixture as corrosive.
Transport By Sea	
	No additional information available
Air Transport	
	No additional information available
SECTION 15: REGULATORY INFORMATION	
15.1. US Federal Regulations	
	No Further Information
15.2. International Regulations	
CANADA	No Further Information
EU REGULATIONS	
European Labeling In Accordance With EC Directives	
Hazard Symbols:	C
Risk Phrases:	R 20 / 21 / 22 Harmful by inhalation, in contact with skin and if swallowed. R 34 Causes burns.
Safety Phrases:	S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 36 / 37 / 39 Wear suitable protective clothing, gloves and eye / face protection. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

15.2.1 Classification According To Directive 67 / 548 / EEC or 1999 / 45 / EC	
	See Above
15.3. National Regulations	
	No Additional Information Available.
15.3. US State Regulations	
	No Additional Information Available.
SECTION 16: OTHER INFORMATION	
Other information	None
Full text of H-phrases: see section 16:	
Eye Dam. 1	Serious eye damage / eye irritation, Category 1
Skin Corr. 1B	Skin corrosion / irritation, Category 1B
Skin Corr. 1C	Skin corrosion / irritation, Category 1C
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
NFPA health hazard:	3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
NFPA fire hazard:	0 - Materials that will not burn.
NFPA reactivity:	0 - Normally stable, even under fire exposure conditions, and are not reactive with water.
HMIS III Rating	
Health:	3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability:	0 Minimal Hazard
Physical:	0 Minimal Hazard
Personal Protection:	H
SDS US (GHS HazCom 2012)	

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