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Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

- 1.1 Product identifier: Dual Fuel 1
- 1.1.1 Mixture
- 1.1.2 Other means of identification: Green Planet Dual Fuel 1
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- 1.2.1 Relevant identified uses:

Complete fertilizer to be used with Green Planet Dual Fual 2 for: soil, soilless, coco coir, hydroponic or any other growing media application.

1.2.2 Uses advised against:

Mixing the product in concentrate with other fertilizer products. Reasons: formation of precipitate, sediment, or insoluble components.

- 1.3 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd 3 Legacy Rd EPPING VIC 3076 Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au
- 1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:



H315 Causes skin irritation. H319 Causes serious eye irritation. Precautionary statements: P264 Wash hands and forearms thoroughly after handling. P280 Wear protective gloves, clothing, eye protection, and face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P321 For specific treatment, refer to Section 4. P332+P313 If skin irritation occurs: Get medical attention. P337+P313 If eye irritation persists: Get medical advice. P362+P364 Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. P363

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2.3 Other hazards

REACTIVITY: Not reactive.

SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin and eyes.

ACUTE:

INHALATION: No data available.

CONTACT WITH SKIN: Causes skin irritation.

EYE CONTACT: Causes serious eye irritation.

INGESTION: Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Description of the mixture:

Aqueous solution of Calcium nitrate, Potassium nitrate, FeEDTA, MnEDTA, ZnEDTA, CuEDTA, Boric Acid, Cobalt Nitrate, and Ammonium Molybdate.

3.1.2 Ingredients:

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification
Water	7732-18-5		231-791-2	35-65%	Not Classified
Calcium Nitrate	10124-37-5		233-332-1	30-50%	Category 2: Skin Irritation. Category 2: Eye Irritation. Category 3: Oxidizing Solid
Potassium nitrate	7757-79-1		231-818-8	5-10%	Category 3: Oxidizing Solid
Edetic Acid	60-00-4		200-449-4	1-5%	Category 2: Eye Irritation.

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Following inhalation:

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention.

4.1.2. Following skin contact:

Take off all contaminated clothing. Immediately flush skin with plenty of water for at least 15 minutes. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

4.1.3. Following eye contact:

Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Obtain medical attention.

4.1.4 Following ingestion:

If swallowed, do not induce vomiting. Rinse mouth with plenty of water. Seek medical advice immediately. Bring the container and SDS.

4.2 Most important symptoms and effects, both acute and delayed

<u>Symptoms</u>: Irritant. May cause skin and eye irritation. Effects of exposure to substance may be delayed. **4.2.1** Inhalation:

May cause respiratory irritation if inhaled. Symptoms may be delayed.

4.2.2. Skin contact:

Contact may cause irritation.

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4.2.3. Eye contact:

Contact may cause serious irritation.

4.2.4 Ingestion:

Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products: None are known.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

<u>Protective equipment:</u> Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

6.1.2 For emergency responders:

Personal protective equipment: For complete personal protection, see section 8.

6.2 Environmental precautions

If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant authorities if the product has caused environmental pollution.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH.**

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

<u>Recommendations</u>: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

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Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Ocupational exposure limits:

Limit value type (country of	Substance name	Occupational limit value	exposure	EC-No.	CAS-No.	Monitoring and observation processes	Peak limitation	Source
origin)		Long term	Short term					
	n/a							

8.1.2 Exposure limits at intended use:

None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure controls.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

Suitable eye protection: Face shield. Chemical safety goggles.

Other eye protection measures: Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

Body protection: Use body protection appropriate for the task. Chemical resistant suit and boots. Do not wear sandals, shorts, or cut of t-shirts.

Other skin protection measures: If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid Colour: Lime green **Odour:** Mineral value temperature pressure 4.0 bН Ambient Melting point/freezing point -8.0°C Ambient Initial boiling point/boiling range 100°C Ambient Flash point Not Available Evaporation rate Not Applicable Flammability (solid, gas) Not Available Upper/lower flammability or explosive limits Not Available Upper explosive limits Not Available Lower explosive limits Not Available Vapour pressure Not Available Vapour density Not Applicable Relative density 1.24 g/ml Ambient Solubility(ies) Complete in water Not available Partition coefficient: n-octanol/water Auto-ignition temperature Not available Decomposition temperature Not available Viscosity Not Applicable Viscosity, dynamic Not Applicable Viscosity, cinematic Not Applicable Explosive properties Not considered explosive **Oxidising properties** Not considered an oxidizer

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity No data available. 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions. 10.3 Possibility of hazardous reactions None are known. 10.4 Conditions to avoid: Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight. 10.5 Incompatible materials: None are known. Hazardous decomposition products: 10.6 No known hazardous decomposition products.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity

Based on available data, the classification criteria are not met. Skin corrosion/irritation Practical experience / human evidence: Causes skin irritation. Assessment / Classification: Category 2 Skin Irritant

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Eye damage/irritation Practical experience / human evidence: Causes sever eye irritation. Assessment / Classification: Category 2 Eye Irritant Sensitization to the respiratory tract/skin Based on available data, the classification criteria are not met. Sensitization to the respiratory tract Based on available data, the classification criteria are not met. Skin sensitization Based on available data, the classification criteria are not met. CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction) Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. **Reproductive toxicity** Based on available data, the classification criteria are not met. **Overall assessment on CMR properties:** Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CalEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies. Specific target organ toxicity (single exposure) STOT SE 1 and 2 Based on available data, the classification criteria are not met. STOT SE 3 Irritation to respiratory tract: May cause respiratory irritation - inhalation Narcotic effects Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) STOT RE 1 and 2 Based on available data, the classification criteria are not met. Aspiration hazard

Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

12.1.1 Aquatic toxicity

Acute (short-term) fish toxicity

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Calcium Nitrate	44.8 ug/l	3-96 h / NA DLY	Pimephales promelas	Physiology – EP Response	unmeasured	163383 Dew,W.A., C.M. Wood, and G.G. Pyle, 2012
Potassium nitrate	5,500 mg/l	24 h	Lepomis macrochirus	LC50	unmeasured	915 Dowden,B.F., and H.J. Bennett, 1965
Edetic acid	167,000 ug/l	24 h	lctalurus punctatus	LC50	unmeasured	934 Clemens,H.P., and K.E. Sneed, 1959

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Chronic (long-term) fish toxicity											
	Effect dose/ Concentration	Test duration	Species	Result/ Evaluation	Method	Remark					
Calcium Nitrate	800,000 ug/L	10 days	Gasterosteus aculeatus	Mortality	unmeasured	2851 Jones,J.R.E., 1939					
Potassium nitrate	300 mg/l	40 days	Heteropneuste s fossilis	LOEC	unmeasured	115928 Srivastava,P.N., and A.S. Narain, 1985					
Edetic acid	10,000 ug/l	120 day	Cyprinus carpio	No Effect	unmeasured	14370 Kaviraj,A., and S. Das, 1995					

Acute (short-term) toxicity to crustacean

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Potassium nitrate	>450 - <500 mg/l	12 h	Portunus pelagicus	LC50	unmeasured	100646 Romano,N., and C. Zeng, 2007
Edetic Acid	122,000 ug/l	24 h	Daphnia magna	EC50 – ITX	unmeasured	16601 Janssen,C.R., E.Q. Espiritu, and G. Persoone, 1993

Chronic (long-term) toxicity to crustacean

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Potassium nitrate	900 mg/l	4.2 days	Daphnia magna	LC50	unmeasured	915 Dowden,B.F., and H.J. Bennett, 1965
Edetic Acid	226 – 234 mg/L	48 h	Daphnia magna	LC50	unmeasured	117622 Sankaramanach i,S.K., and S.R. Qasim, 1999

12.2 Persistence and degradability Biodegradation: Assessment / Classification: No information available.

- 12.3 Bioaccumulative potential Assessment / Classification: No information available.
- 12.4 Mobility in soil Assessment / Classification: No information available.
- 12.5 Results of PBT and vPvB assessment This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:

Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

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13.2 Additional information:

Irrigation return flows are not considered hazardous waste.

The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

The product does not have an EPA Hazardous Waste Number.

Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)			
14.1 UN No.		Noi	n dangerous good				
14.2 UN Proper shipping name			Not applicable				
14.3 Transport hazard class(es)			Not applicable				
Hazard label(s)			Not applicable				
14.4 Packing group	Not applicable						
14.5 Envirommental hazards	Not applicable						

14.6 Special precautions for user: None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

14.8 Additional information

14.8.1	All transport carriers
14.8.2	Land transport (ADR/RID)
	Limited quantity: Not applicable
	Special provisions: None
	Tunnel restriction code: Not applicable
	Classification code: Not applicable
	Transport category: Not applicable
	Hazard identification number (Kemler No.): Not applicable
	Remark: Non dangerous good
14.8.3	Inland waterway transport (ADN)
	Limited quantity: Not applicable
	Special provisions: None
	Category: Not applicable
	Remark: Non dangerous good
14.8.4	Sea transport (IMDG)
	Limited quantity: Not applicable
	Special provisions: None
	Marine pollutant: No
	Segregation group: Not applicable
	Remark: Non dangerous good
14.8.5	Air transport (ICAO-TI / IATA-DGR)
	Limited quantity: Not applicable
	Special provisions: None
	Remark: Non dangerous good

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the mixture

15.1.1 US Federal

SARA Title III Rules Section 313 Toxic Chemicals This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372. Section 311/312 Hazard Classes Acute Health Hazard: None Chronic Health Hazard: None Fire Hazard: None Release of Pressure: None Reactive Hazard: None

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 15.1.2 US State Regulations California Proposition 65 This product does not contain any Proposition 65 chemicals
 15.1.3 Canada

WHIMIS Classification

Not classified

This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.1.4 European Union Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP] No additional information available.

15.2 Chemical Safety Assessment: No additional information available.

Section 16: OTHER INFORMATION

16.1 Indication of changes

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16.2 Disclaimer:

The information provided on this SDS is believed to be accurate to the best of our knowledge, but is not warranted to be so. The information provided is intended to present guidance for safe handling, use, processing, storage, transport, disposal, and discharge; it is not intended to be a guarantee or quality specification. Green Planet LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if safety procedure are not adhered to as stipulated in the SDS. Furthermore, Green Planet LLC assumes no responsibility for injury caused by abnormal use of the product even if reasonable safety procedures are followed. It is the responsibility of the recipient of this SDS to ensure that information given here is read and understood by all who use, handle, dispose of, or in any way come in contact with the product.

Safety Data Sheet

Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

- 1.1 Product identifier: Dual Fuel 2
- 1.1.1 Mixture
- 1.1.2 Other means of identification: Green Planet Dual Fuel 2
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- 1.2.1 Relevant identified uses:

Complete fertilizer to be used with Green Planet Dual Fuel 1 for: soil, soilless, coco coir, hydroponic or any other growing media application.

 1.2.2 Uses advised against: Mixing the product in concentrate with other fertilizer products. Reasons: formation of precipitate, sediment, or insoluble components.
 1.3 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd 3 Legacy Rd

EPPING VIC 3076 Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au

1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification Skin Irrit. 3 – H316 Eye Irrit. 2B –H320

2.2 Label elements

Hazard pictograms:	
Signal word:	
Warning	
Hazard statements:	
H316	Causes mild skin irritation.
H320	Causes eye irritation.
Precautionary stater	nents:
P101	If medical advice is needed, have product container or label on hand.
P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice.

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2.3 Other hazards

REACTIVITY: Not reactive.

SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin and eyes.

ACUTE:

INHALATION: No data available.

CONTACT WITH SKIN: Exposure may cause mild skin irritation.

EYE CONTACT: Contact can cause eye irritation.

INGESTION: Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Description of the mixture:

Aqueous solution of Magnesium Sulfate. Potassium Phosphate, Potassium Sulfate.

3.1.2 Ingredients:

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification
Water	7732-18-5		231-791-2	30-70%	Not Classified
Magnesium Sulfate	7487-88-9		231-298-2	10-30%	Not Classified
Potassium Dihydrogenorthophosphate	7778-77-0		231-913-4	10-20%	Not Classified
Potassium Sulfate	7778-80-5		231-915-5	10-20%	Not Classified

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Following inhalation:

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention.

4.1.2. Following skin contact:

Rinse the affected area with plenty of water. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before reuse.

4.1.3. Following eye contact:

If product enters the eyes, open eyes while under gentle running water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention.

4.1.4 Following ingestion:

Wash out mouth with plenty of water. Do not induce vomiting unless instructed to do so by medical personal. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Irritant. May cause skin and eye irritation. Effects of exposure to substance may be delayed.

4.2.1 Inhalation:

May cause respiratory irritation if inhaled. Symptoms may be delayed.

4.2.2. Skin contact:

Contact may cause irritation.

4.2.3. Eye contact:

Contact may cause irritation.

4.2.4 Ingestion:

Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

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Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.
 Special hazards arising from the substance or mixture:

Hazardous combustion products: None are known.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

<u>Protective equipment:</u> Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

 6.1.2 For emergency responders: <u>Personal protective equipment:</u> For complete personal protection, see section 8.
 6.2 Environmental precautions

If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant authorities if the product has caused environmental pollution.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH.**

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

Recommendations: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

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Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Ocupational exposure limits:

Limit value type (country of	Substance name	Occupational limit value	exposure	EC-No.	CAS-No.	Monitoring and observation processes	Peak limitation	Source
origin)		Long term	Short term					
	n/a							

8.1.2 Exposure limits at intended use:

None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure controls.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

Suitable eye protection: Face shield. Chemical safety goggles.

Other eye protection measures: Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

Body protection: Use body protection appropriate for the task. Chemical resistant suit and boots. Do not wear sandals, shorts, or cut of t-shirts.

Other skin protection measures: If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

Safety Data Sheet

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid Colour: Colourless **Odour:** Odourless value temperature pressure pН 3.9 Ambient Melting point/freezing point -5.0°C Ambient Initial boiling point/boiling range 100°C Ambient Flash point Not Available Evaporation rate Not Applicable Flammability (solid, gas) Not Available Upper/lower flammability or explosive limits Not Available Upper explosive limits Not Available Lower explosive limits Not Available Vapour pressure Not Available Vapour density Not Applicable Relative density 1.2 g/ml Ambient Solubility(ies) Complete in water Not available Partition coefficient: n-octanol/water Auto-ignition temperature Not available Decomposition temperature Not available Viscosity Not Applicable Viscosity, dynamic Not Applicable Viscosity, cinematic Not Applicable Not considered explosive Explosive properties **Oxidising properties** Not considered an oxidizer

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity No data available. 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions. 10.3 Possibility of hazardous reactions None are known. 10.4 Conditions to avoid: Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight. 10.5 Incompatible materials: None are known. Hazardous decomposition products: 10.6 No known hazardous decomposition products.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity

Based on available data, the classification criteria are not met. Skin corrosion/irritation Practical experience / human evidence: May cause mild skin irritation. Assessment / Classification: Category 3 Skin Irritant

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Eye damage/irritation Practical experience / human evidence: May cause eye irritation. Assessment / Classification: Category 2B Eye Irritant Sensitization to the respiratory tract/skin Based on available data, the classification criteria are not met. Sensitization to the respiratory tract Based on available data, the classification criteria are not met. Skin sensitization Based on available data, the classification criteria are not met. CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction) Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. **Reproductive toxicity** Based on available data, the classification criteria are not met. **Overall assessment on CMR properties:** Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CalEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies. Specific target organ toxicity (single exposure) STOT SE 1 and 2 Based on available data, the classification criteria are not met. STOT SE 3 Irritation to respiratory tract: May cause respiratory irritation - inhalation Narcotic effects Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) STOT RE 1 and 2 Based on available data, the classification criteria are not met. Aspiration hazard

Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

12.1.1 Aquatic toxicity

Acute (short-term) fish toxicity

· · /	-					
	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	19,000 mg/l	24 h	Lepomis macrochirus	LC50	unmeasured	J. Water Pollut. Control Fed.37(9): 1308-1316
Chronic (long-term)	fish toxicity					
	Effect dose/ Concentration	Test duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	8,000,000 – 11,000,000 ug/L	2 E x WK 1-6 week(s)	Oncorhynchus mykiss	Mortality	unmeasured	M.S.Thesis, University of Wyoming, Laramie, WY:59 p.
Potassium Dihydrogenphosphate	Diet: 6.14 %	27 weeks	Oncorhynchus mykiss	Mortality 32.3 %	unmeasured	Nippon Suisan Gakkaishi59(8): 1395-1400

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	Acute (short-term) t	oxicity to crus	stacean				
		Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
	Magnesium Sulfate	2,180 – 2,500 mg/L	24 h	Daphnia magna	LC50	unmeasured	Environ. Toxicol. Chem.16(10): 2009-2019
	Chronic (long-term)	toxicity to cru	istacean				
		Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
	Magnesium Sulfate	360 mg/L	3 x WK 3 weeks	Daphnia magna	Mortality	unmeasured	Hydrobiologia10 8:25-31
	Potassium Dihydrogenphosphate	Diet: 6.14 %	27 weeks	Oncorhynchus mykiss	Mortality 32.3 %	unmeasured	Nippon Suisan Gakkaishi59(8): 1395-1400
2.2 2.3	Persistence and deg Biodegradation: Assessment / Class Readily biodegradable (ac Bioaccumulative po Assessment / Class The product completely dis potential for bioaccumulati	ification: cording to OECD C tential ification: ssociates in water.		chemical propertie	es (high water	solubility), the pr	oduct has a low
.4	Mobility in soil Assessment / Class The product has a low pote	ification:	n. Portion not tak	en up by the plants	s. can leach ir	nto around water.	
.5	Results of PBT and This substance does not m	vPvB assessn	nent		_,		

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:

Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

13.2 Additional information:

Irrigation return flows are not considered hazardous waste.

The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. The product does not have an EPA Hazardous Waste Number.

Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)		
14.1 UN No.	Non dangerous good					
14.2 UN Proper shipping name	Not applicable					
14.3 Transport hazard class(es)			Not applicable			
Hazard label(s)			Not applicable			
14.4 Packing group	Not applicable					
14.5 Envirommental hazards			Not applicable			

14.6 Special precautions for user: None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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Dua	l Fuel 2	
4.8	Additional in	nformation
	14.8.1	All transport carriers
	14.8.2	Land transport (ADR/RID)
		Limited quantity: Not applicable Special provisions: None
		Tunnel restriction code: Not applicable Classification code: Not applicable
		Transport category: Not applicable
		Hazard identification number (Kemler No.):
		Remark: Non dangerous good
	14.8.3	Inland waterway transport (ADN)
		Limited quantity: Not applicable
		Special provisions: None
		Category: Not applicable
		Remark: Non dangerous good
	14.8.4	Sea transport (IMDG)
		Limited quantity: Not applicable
		Special provisions: None
		Marine pollutant: No
		Segregation group: Not applicable
		Developments New developments and

Remark: Non dangerous good 14.8.5 Air transport (ICAO-TI / IATA-DGR) Limited quantity: Not applicable Special provisions: None Remark: Non dangerous good

Section 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the mixture 15.1

15.1.1 US Federal

SARA Title III Rules Section 313 Toxic Chemicals This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372. Section 311/312 Hazard Classes Acute Health Hazard: None Chronic Health Hazard: None Fire Hazard: None Release of Pressure: None Reactive Hazard: None 15.1.2 US State Regulations

Not applicable

California Proposition 65

This product does not contain any Proposition 65 chemicals

15.1.3 Canada

WHIMIS Classification Not classified

This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.1.4 European Union Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP] No additional information available. 15.2

Chemical Safety Assessment: No additional information available.

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Section 16: OTHER INFORMATION

16.1 Indication of changes

Version No.: 1.0 - 19/07/2016

16.2 Disclaimer:

The information provided on this SDS is believed to be accurate to the best of our knowledge, but is not warranted to be so. The information provided is intended to present guidance for safe handling, use, processing, storage, transport, disposal, and discharge; it is not intended to be a guarantee or quality specification. Green Planet LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if safety procedure are not adhered to as stipulated in the SDS. Furthermore, Green Planet LLC assumes no responsibility for injury caused by abnormal use of the product even if reasonable safety procedures are followed. It is the responsibility of the recipient of this SDS to ensure that information given here is read and understood by all who use, handle, dispose of, or in any way come in contact with the product.

Safety Data Sheet

Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

- 1.1 Product identifier: GP3 Bloom
- 1.1.1 Mixture
- 1.1.2 Other means of identification: Green Planet Bloom, Bloom 3 Part
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- 1.2.1 Relevant identified uses:

Complete fertilizer to be used with green planet 3 Part Grow and Micro for: soil, soilless, coco coir, hydroponic or any other growing media application.

 1.2.2 Uses advised against: Mixing the product in concentrate with other fertilizer products. Reasons: formation of precipitate, sediment, or insoluble components.
 1.3 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd 3 Legacy Rd

EPPING VIC 3076 Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au

1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification Skin Irrit. 3 – H316 Eye Irrit. 2B –H320

2.2 Label elements

Hazard pictograms	S:
N/A	
Signal word:	
Warning	
Hazard statements	5.
H316	Causes mild skin irritation.
H320	Causes eye irritation.
Precautionary stat	tements:
P101	If medical advice is needed, have product container or label on hand.
P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice.

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2.3 Other hazards

REACTIVITY: Not reactive.

SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin and eyes.

ACUTE:

INHALATION: No data available.

CONTACT WITH SKIN: Exposure may cause mild skin irritation.

EYE CONTACT: Contact can cause eye irritation.

INGESTION: Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Description of the mixture:

Aqueous solution of Dipotassium Phosphate, Magnesium Sulfate, Potassium Phosphate, Potassium Sulfate.

3.1.2 Ingredients:

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification
Water	7732-18-5		231-791-2	50-80%	Not Classified
Magnesium Sulfate	7487-88-9		231-298-2	10-30%	Not Classified
Potassium Dihydrogenorthophosphate	7778-77-0		231-913-4	10-20%	Not Classified

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Following inhalation:

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention.

4.1.2. Following skin contact:

Rinse the affected area with plenty of water. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before reuse.

4.1.3. Following eye contact:

If product enters the eyes, open eyes while under gentle running water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention.

4.1.4 Following ingestion:

Wash out mouth with plenty of water. Do not induce vomiting unless instructed to do so by medical personal. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Irritant. May cause skin and eye irritation. Effects of exposure to substance may be delayed.

4.2.1 Inhalation:

May cause respiratory irritation if inhaled. Symptoms may be delayed.

4.2.2. Skin contact:

Contact may cause irritation.

4.2.3. Eye contact:

Contact may cause irritation.

4.2.4 Ingestion:

Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

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Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.

- 5.2 Special hazards arising from the substance or mixture:
- Hazardous combustion products: None are known.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Protective equipment: Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

6.1.2 For emergency responders:

Personal protective equipment: For complete personal protection, see section 8.

6.2 Environmental precautions If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant authorities if the product has caused environmental pollution.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH.**

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

<u>Recommendations</u>: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

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Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Ocupational exposure limits:

Limit value type (country of	Substance name	Occupational limit value	exposure	EC-No.	CAS-No.	Monitoring and observation processes	Peak limitation	Source
origin)		Long term	Short term					
	n/a							

8.1.2 Exposure limits at intended use:

None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure controls.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

Suitable eye protection: Face shield. Chemical safety goggles.

Other eye protection measures: Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

Body protection: Use body protection appropriate for the task. Chemical resistant suit and boots. Do not wear sandals, shorts, or cut of t-shirts.

Other skin protection measures: If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid Colour: Colourless **Odour:** Odourless value temperature pressure pН 3.9 Ambient Melting point/freezing point -5.0°C Ambient Initial boiling point/boiling range 100°C Ambient Flash point Not Available Evaporation rate Not Applicable Flammability (solid, gas) Not Available Upper/lower flammability or explosive limits Not Available Upper explosive limits Not Available Lower explosive limits Not Available Vapour pressure Not Available Vapour density Not Applicable Relative density 1.17 g/ml Ambient Solubility(ies) Complete in water Not available Partition coefficient: n-octanol/water Auto-ignition temperature Not available Decomposition temperature Not available Viscosity Not Applicable Viscosity, dynamic Not Applicable Viscosity, cinematic Not Applicable Explosive properties Not considered explosive **Oxidising properties** Not considered an oxidizer

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity No data available. 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions. 10.3 Possibility of hazardous reactions None are known. 10.4 Conditions to avoid: Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight. 10.5 Incompatible materials: None are known. Hazardous decomposition products: 10.6 No known hazardous decomposition products.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity

Based on available data, the classification criteria are not met. Skin corrosion/irritation Practical experience / human evidence: May cause mild skin irritation. Assessment / Classification: Category 3 Skin Irritant

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Eye damage/irritation Practical experience / human evidence: May cause eye irritation. Assessment / Classification: Category 2B Eye Irritant Sensitization to the respiratory tract/skin Based on available data, the classification criteria are not met. Sensitization to the respiratory tract Based on available data, the classification criteria are not met. Skin sensitization Based on available data, the classification criteria are not met. CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction) Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. **Reproductive toxicity** Based on available data, the classification criteria are not met. **Overall assessment on CMR properties:** Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CalEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies. Specific target organ toxicity (single exposure) STOT SE 1 and 2 Based on available data, the classification criteria are not met. STOT SE 3 Irritation to respiratory tract: May cause respiratory irritation - inhalation Narcotic effects Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) STOT RE 1 and 2 Based on available data, the classification criteria are not met. Aspiration hazard

Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

12.1.1 Aquatic toxicity

Acute (short-term) fish toxicity

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	19,000 mg/l	24 h	Lepomis macrochirus	LC50	unmeasured	J. Water Pollut. Control Fed.37(9): 1308-1316
Chronic (long-term)	fish toxicity					
	Effect dose/ Concentration	Test duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	8,000,000 – 11,000,000 ug/L	2 E x WK 1-6 week(s)	Oncorhynchus mykiss	Mortality	unmeasured	M.S.Thesis, University of Wyoming, Laramie, WY:59 p.
Potassium Dihydrogenphosphate	Diet: 6.14 %	27 weeks	Oncorhynchus mykiss	Mortality 32.3 %	unmeasured	Nippon Suisan Gakkaishi59(8): 1395-1400

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12.2

12.3

12.4

12.5

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Acute (short-term) t	oxicity to crus	tacean				
	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	2,180 – 2,500 mg/L	24 h	Daphnia magna	LC50	unmeasured	Environ. Toxicol. Chem.16(10): 2009-2019
Chronic (long-term)	toxicity to cru	stacean				
	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	360 mg/L	3 x WK 3 weeks	Daphnia magna	Mortality	unmeasured	Hydrobiologia10 8:25-31
Potassium Dihydrogenphosphate	Diet: 6.14 %	27 weeks	Oncorhynchus mykiss	Mortality 32.3 %	unmeasured	Nippon Suisan Gakkaishi59(8): 1395-1400
Persistence and deg Biodegradation: Assessment / Class Readily biodegradable (ac Bioaccumulative po	sification: cording to OECD G	uideline 302B).				
Assessment / Class The product completely dis potential for bioaccumulati	ssociates in water.	Based on physio	chemical properties	s (high water :	solubility), the pr	oduct has a low
Mobility in soil Assessment / Class	ification:					
The product has a low pote	ential for adsorptior	. Portion not tak	en up by the plants	, can leach in	to ground water.	

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:

Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

13.2 Additional information:

Irrigation return flows are not considered hazardous waste.

The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. The product does not have an EPA Hazardous Waste Number.

Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)		
14.1 UN No.	Non dangerous good					
14.2 UN Proper shipping name	Not applicable					
14.3 Transport hazard class(es)			Not applicable			
Hazard label(s)	Not applicable					
14.4 Packing group	Not applicable					
14.5 Envirommental hazards			Not applicable			

14.6 Special precautions for user: None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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14.8 Additional information

14.8.1	All transport carriers
14.8.2	Land transport (ADR/RID)
	Limited quantity: Not applicable
	Special provisions: None
	Tunnel restriction code: Not applicable
	Classification code: Not applicable
	Transport category: Not applicable
	Hazard identification number (Kemler No.): Not applicable
	Remark: Non dangerous good
14.8.3	Inland waterway transport (ADN)
	Limited quantity: Not applicable
	Special provisions: None
	Category: Not applicable
	Remark: Non dangerous good
14.8.4	Sea transport (IMDG)
	Limited quantity: Not applicable
	Special provisions: None
	Marine pollutant: No
	Segregation group: Not applicable
	Remark: Non dangerous good
14.8.5	Air transport (ICAO-TI / IATA-DGR)
	Limited quantity: Not applicable
	Special provisions: None
	Remark: Non dangerous good

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the mixture

15.1.1 US Federal

SARA Title III Rules
 Section 313 Toxic Chemicals
 This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372.
 Section 311/312 Hazard Classes
 Acute Health Hazard: None
 Chronic Health Hazard: None
 Fire Hazard: None
 Release of Pressure: None
 Reactive Hazard: None
 15.1.2 US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

15.1.3 Canada

WHIMIS Classification Not classified

This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.1.4 European Union Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP] No additional information available.

15.2 Chemical Safety Assessment:

No additional information available.

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Section 16: OTHER INFORMATION

16.1 Indication of changes

Version No.: 1.1 - 08/03/2016

16.2 Disclaimer:

The information provided on this SDS is believed to be accurate to the best of our knowledge, but is not warranted to be so. The information provided is intended to present guidance for safe handling, use, processing, storage, transport, disposal, and discharge; it is not intended to be a guarantee or quality specification. Green Planet LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if safety procedure are not adhered to as stipulated in the SDS. Furthermore, Green Planet LLC assumes no responsibility for injury caused by abnormal use of the product even if reasonable safety procedures are followed. It is the responsibility of the recipient of this SDS to ensure that information given here is read and understood by all who use, handle, dispose of, or in any way come in contact with the product.

Safety Data Sheet

Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

- 1.1 Product identifier: GP3 Grow
- 1.1.1 Mixture
- 1.1.2 Other means of identification: Green Planet Grow, Grow 3 Part
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- 1.2.1 Relevant identified uses: Complete fertilizer to be used with green planet 3 Part Bloom and Micro for: soil, soilless, coco coir, hydroponic or any other growing media application.
- 1.2.2 Uses advised against: Mixing the product in concentrate with other fertilizer products. Reasons: formation of precipitate, sediment, or insoluble components.
 1.3 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd 3 Legacy Rd EPPING VIC 3076

Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au

1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification Skin Irrit. 3 – H316 Eye Irrit. 2B –H320

2.2 Label elements

Laber elements	
Hazard pictograms	
N/A	
Signal word:	
Warning	
Hazard statements:	
H316	Causes mild skin irritation.
H320	Causes eye irritation.
Precautionary state	ements:
P101	If medical advice is needed, have product container or label on hand.
P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice.

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2.3 Other hazards

REACTIVITY: Non-reactive

SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin and eyes.

ACUTE:

INHALATION: No data available.

CONTACT WITH SKIN: Exposure may cause mild skin irritation.

EYE CONTACT: Contact can cause eye irritation.

INGESTION: Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Description of the mixture:

Aqueous solution of Potassium Sulfate, Potassium Nitrate, Monopotassium Phosphate, Dipotassium Phosphate, Magnesium Sulfate, Magnesium Nitrate, Ammonium Sulfate, Ammonium Phosphate, Copper EDTA

3.1.2 Ingredients:

Substance name	CAS No.	INDEX	EC No.	Concentration	Classification
		No.			
Water	7732-18-5		231-791-2	35-65%	Not Classified
Magnesium Sulfate	7487-88-9		231-298-2	5-10%	Not Classified
Ammonium dihydrogenorthophosphate	7722-76-1		231-764-5	5-10%	Not Classified
Potassium nitrate	7757-79-1		231-818-8	15-25%	Category 3: Oxidizing Solid
Magnesium Nitrate	10377-60-3		233-826-7	5-10%	Category 3: Oxidizing Solid Catergory 2: Eye Irritant
Potassium Sulfate	7778-80-5		231-915-5	5-10%	Not Classified

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Following inhalation:

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention.

4.1.2. Following skin contact:

Rinse the affected area with plenty of water. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before reuse.

4.1.3. Following eye contact:

If product enters the eyes, open eyes while under gentle running water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention.

4.1.4 Following ingestion:

Wash out mouth with plenty of water. Do not induce vomiting unless instructed to do so by medical personal. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Irritant. May cause skin and eye irritation. Effects of exposure to substance may be delayed.



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4.2.1 Inhalation:

May cause respiratory irritation if inhaled. Symptoms may be delayed.

4.2.2. Skin contact:

Contact may cause irritation.

4.2.3. Eye contact:

Contact may cause irritation.

4.2.4 Ingestion:

Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products: None are known.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

<u>Protective equipment:</u> Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

6.1.2 For emergency responders:

Personal protective equipment: For complete personal protection, see section 8.

6.2 Environmental precautions

If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant authorities if the product has caused environmental pollution.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH.**

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

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Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

Recommendations: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Ocupational exposure limits:

Limit value type (country of origin)	Substance name	Occupational e limit value		EC-No.	CAS-No.	Monitoring and observation processes	Peak limitation	Source
		Long term	Short term					
	n/a							

8.1.2 Exposure limits at intended use:

None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure controls.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

Suitable eye protection: Face shield. Chemical safety goggles.

Other eye protection measures: Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

Body protection: Use body protection appropriate for the task. Chemical resistant suit and boots. Do not wear sandals, shorts, or cut of t-shirts.

Other skin protection measures: If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

Safety Data Sheet

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid Colour: Light Blue **Odour:** Odourless value temperature pressure bН 4.3 Ambient Melting point/freezing point -5.0°C Ambient Initial boiling point/boiling range 100°C Ambient Flash point Not Available Evaporation rate Not Applicable Flammability (solid, gas) Not Available Upper/lower flammability or explosive limits Not Available Upper explosive limits Not Available Lower explosive limits Not Available Vapour pressure Not Available Vapour density Not Applicable Relative density 1.14 g/ml Ambient Solubility(ies) Complete in water Not available Partition coefficient: n-octanol/water Auto-ignition temperature Not available Decomposition temperature Not available Viscosity Not Applicable

Not Applicable

Not Applicable

Not considered explosive

Not considered an oxidizer

Section 10: STABILITY AND REACTIVITY

Viscosity, dynamic

Viscosity, cinematic

Explosive properties

Oxidising properties

- 10.1 Reactivity No data available. 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions. 10.3 Possibility of hazardous reactions None are known. 10.4 Conditions to avoid: Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight. 10.5 Incompatible materials: None are known. 10.6
- **10.6 Hazardous decomposition products:** No known hazardous decomposition products.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity

Based on available data, the classification criteria are not met. Skin corrosion/irritation Practical experience / human evidence: May cause mild skin irritation. Assessment / Classification: Category 3 Skin Irritant

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Eye damage/irritation Practical experience / human evidence: May cause eye irritation. Assessment / Classification: Category 2B Eye Irritant Sensitization to the respiratory tract/skin Based on available data, the classification criteria are not met. Sensitization to the respiratory tract Based on available data, the classification criteria are not met. Skin sensitization Based on available data, the classification criteria are not met. CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction) Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. **Reproductive toxicity** Based on available data, the classification criteria are not met. **Overall assessment on CMR properties:** Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CalEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies. Specific target organ toxicity (single exposure) STOT SE 1 and 2 Based on available data, the classification criteria are not met. STOT SE 3 Irritation to respiratory tract: May cause respiratory irritation - inhalation Narcotic effects Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) STOT RE 1 and 2 Based on available data, the classification criteria are not met. Aspiration hazard Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

12.1.1 Aquatic toxicity

Acute (short-term) fish toxicity

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	19,000 mg/l	24 h	Lepomis macrochirus	LC50	unmeasured	J. Water Pollut. Control Fed.37(9): 1308-1316
Potassium nitrate	5,500 mg/l	24 h	Lepomis macrochirus	LC50	unmeasured	915 Dowden,B.F., and H.J. Bennett, 1965

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Chronic (long-term) fish toxicity						
	Effect dose/ Concentration	Test duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	8,000,000 – 11,000,000 ug/L	2 E x WK 1-6 week(s)	Oncorhynchus mykiss	Mortality	unmeasured	M.S.Thesis, University of Wyoming, Laramie, WY:59 p.
Potassium nitrate	300 mg/l	40 days	Heteropneuste s fossilis	LOEC	unmeasured	115928 Srivastava,P.N., and A.S. Narain, 1985

Acute (short-term) toxicity to crustacean

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	2,180 – 2,500 mg/L	24 h	Daphnia magna	LC50	unmeasured	Environ. Toxicol. Chem.16(10): 2009-2019
Potassium nitrate	>450 - <500 mg/l	12 h	Portunus pelagicus	LC50	unmeasured	100646 Romano,N., and C. Zeng, 2007
Magnesium nitrate	32 – 320 mg/l	6 – 24 h	Daphnia magna	Mortality	unmeasured	45194 Tomasik,P., C.H.D. Magadza, S. Mhizha, and A. Chirume, 1995

Chronic (long-term) toxicity to crustacean

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	360 mg/L	3 x WK 3 weeks	Daphnia magna	Mortality	unmeasured	Hydrobiologia10 8:25-31
Potassium nitrate	900 mg/l	4.2 days	Daphnia magna	LC50	unmeasured	915 Dowden,B.F., and H.J. Bennett, 1965

12.2 Persistence and degradability Biodegradation: Assessment / Classification:

Readily biodegradable (according to OECD Guideline 302B).

12.3 Bioaccumulative potential

Assessment / Classification:

The product completely dissociates in water. Based on physiochemical properties (high water solubility), the product has a low potential for bioaccumulation.

12.4 Mobility in soil Assessment / Classification:

The product has a low potential for adsorption. Portion not taken up by the plants, can leach into ground water.

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

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Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

- 13.1.1 Product / Packaging disposal:
 - Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

13.2 Additional information:

Irrigation return flows are not considered hazardous waste.

The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. The product does not have an EPA Hazardous Waste Number.

Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)		
14.1 UN No.		Noi	n dangerous good			
14.2 UN Proper shipping name	Not applicable					
14.3 Transport hazard class(es)	Not applicable					
Hazard label(s)	Not applicable					
14.4 Packing group	Not applicable					
14.5 Envirommental hazards	Not applicable					

14.6 Special precautions for user: None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

14.8 Additional information

14.8.1 All transport carriers

14.8.2	Land transport (ADR/RID)				
	Limited quantity: Not applicable				
	Special provisions: None				
	Tunnel restriction code: Not applicable				
	Classification code: Not applicable				
	Transport category: Not applicable				
	Hazard identification number (Kemler No.): Not applicable				
	Remark: Non dangerous good				
14.8.3	Inland waterway transport (ADN)				
	Limited quantity: Not applicable				
	Special provisions: None				

Category: Not applicable Remark: Non dangerous good 14.8.4 Sea transport (IMDG) Limited quantity: Not applicable Special provisions: None Marine pollutant: No

 Segregation group: Not applicable

 Remark: Non dangerous good

 14.8.5
 Air transport (ICAO-TI / IATA-DGR)

 Limited quantity: Not applicable

 Special provisions: None

 Remark: Non dangerous good

Safety Data Sheet

Section 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the mixture
15.1.1	US Federal
	SARA Title III Rules
	Section 313 Toxic Chemicals
	This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372.
	Section 311/312 Hazard Classes
	Acute Health Hazard: None
	Chronic Health Hazard: None
	Fire Hazard: None
	Release of Pressure: None
	Reactive Hazard: None
15.1.2	US State Regulations
	California Proposition 65
	This product does not contain any Proposition 65 chemicals
15.1.3	Canada
	WHIMIS Classification
	Not classified
	This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.
15.1.4	European Union
	Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP]
	No additional information available.
15.2	Chemical Safety Assessment:
	No additional information available.

Section 16: OTHER INFORMATION

16.1 Indication of changes

Version No.: 1.0 - 01/12/2015

16.2 **Disclaimer:**

The information provided on this SDS is believed to be accurate to the best of our knowledge, but is not warranted to be so. The information provided is intended to present guidance for safe handling, use, processing, storage, transport, disposal, and discharge; it is not intended to be a guarantee or quality specification. Green Planet LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if safety procedure are not adhered to as stipulated in the SDS. Furthermore, Green Planet LLC assumes no responsibility for injury caused by abnormal use of the product even if reasonable safety procedures are followed. It is the responsibility of the recipient of this SDS to ensure that information given here is read and understood by all who use, handle, dispose of, or in any way come in contact with the product.

Safety Data Sheet

Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

- 1.1 Product identifier: GP3 Micro
- 1.1.1 Mixture
- 1.1.2 Other means of identification: Green Planet Micro, Micro 3 Part
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- 1.2.1 Relevant identified uses:

Complete fertilizer to be used with green planet 3 Part Grow and Bloom for: soil, soilless, coco coir, hydroponic or any other growing media application.

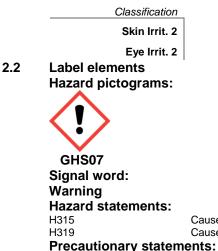
 1.2.2 Uses advised against: Mixing the product in concentrate with other fertilizer products. Reasons: formation of precipitate, sediment, or insoluble components.
 1.3 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd 3 Legacy Rd EPPING VIC 3076

Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au

1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:



Causes skin irritation. Causes serious eye irritation. Precautionary statements: P264 Wash hands and forearms thoroughly after handling. P280 Wear protective gloves, clothing, eye protection, and face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P321 For specific treatment, refer to Section 4. P332+P313 If skin irritation occurs: Get medical attention. P337+P313 If eye irritation persists: Get medical advice. P362+P364 Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. P363

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2.3 Other hazards

REACTIVITY: Not reactive.

SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin and eyes.

ACUTE:

INHALATION: No data available.

CONTACT WITH SKIN: Causes skin irritation.

EYE CONTACT: Causes serious eye irritation.

INGESTION: Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Description of the mixture:

Aqueous solution of Calcium nitrate, Potassium nitrate, FeEDTA, MnEDTA, ZnEDTA, CuEDTA, Potassium Borate, Cobalt Nitrate, and Ammonium Molybdate.

3.1.2 Ingredients:

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification
Water	7732-18-5		231-791-2	35-65%	Not Classified
Calcium Nitrate	10124-37-5		233-332-1	30-50%	Category 2: Skin Irritation. Category 2: Eye Irritation. Category 3: Oxidizing Solid
Potassium nitrate	7757-79-1		231-818-8	5-10%	Category 3: Oxidizing Solid
Edetic Acid	60-00-4		200-449-4	1-5%	Category 2: Eye Irritation.

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Following inhalation:

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention.

4.1.2. Following skin contact:

Take off all contaminated clothing. Immediately flush skin with plenty of water for at least 15 minutes. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

4.1.3. Following eye contact:

Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Obtain medical attention.

4.1.4 Following ingestion:

If swallowed, do not induce vomiting. Rinse mouth with plenty of water. Seek medical advice immediately. Bring the container and SDS.

4.2 Most important symptoms and effects, both acute and delayed

<u>Symptoms</u>: Irritant. May cause skin and eye irritation. Effects of exposure to substance may be delayed. **4.2.1** Inhalation:

May cause respiratory irritation if inhaled. Symptoms may be delayed.

4.2.2. Skin contact:

Contact may cause irritation.

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4.2.3. Eye contact:

Contact may cause serious irritation.

4.2.4 Ingestion:

Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products: None are known.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

<u>Protective equipment:</u> Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

6.1.2 For emergency responders:

Personal protective equipment: For complete personal protection, see section 8.

6.2 Environmental precautions

If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant authorities if the product has caused environmental pollution.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH.**

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

<u>Recommendations</u>: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

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Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Ocupational exposure limits:

Limit value type (country of	Substance name	Occupational limit value	exposure	EC-No.	CAS-No.	Monitoring and observation processes	Peak limitation	Source
origin)		Long term	Short term					
	n/a							

8.1.2 Exposure limits at intended use:

None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure controls.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

Suitable eye protection: Face shield. Chemical safety goggles.

Other eye protection measures: Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

Body protection: Use body protection appropriate for the task. Chemical resistant suit and boots. Do not wear sandals, shorts, or cut of t-shirts.

Other skin protection measures: If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid **Colour:** Burgundy **Odour:** Mineral value temperature pressure bН 5.8 Ambient Melting point/freezing point -18.0°C Ambient Initial boiling point/boiling range 100°C Ambient Flash point Not Available Evaporation rate Not Applicable Flammability (solid, gas) Not Available Upper/lower flammability or explosive limits Not Available Upper explosive limits Not Available Lower explosive limits Not Available Vapour pressure Not Available Vapour density Not Applicable Relative density 1.23 g/ml Ambient Solubility(ies) Complete in water Not available Partition coefficient: n-octanol/water Auto-ignition temperature Not available Decomposition temperature Not available Viscosity Not Applicable Viscosity, dynamic Not Applicable Viscosity, cinematic Not Applicable Explosive properties Not considered explosive **Oxidising properties** Not considered an oxidizer

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity No data available. 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions. 10.3 Possibility of hazardous reactions None are known. 10.4 Conditions to avoid: Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight. 10.5 Incompatible materials: None are known. Hazardous decomposition products: 10.6 No known hazardous decomposition products.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity

Based on available data, the classification criteria are not met. Skin corrosion/irritation Practical experience / human evidence: Causes skin irritation. Assessment / Classification: Category 2 Skin Irritant

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Eye damage/irritation Practical experience / human evidence: Causes sever eye irritation. Assessment / Classification: Category 2 Eye Irritant Sensitization to the respiratory tract/skin Based on available data, the classification criteria are not met. Sensitization to the respiratory tract Based on available data, the classification criteria are not met. Skin sensitization Based on available data, the classification criteria are not met. CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction) Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. **Reproductive toxicity** Based on available data, the classification criteria are not met. **Overall assessment on CMR properties:** Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CalEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies. Specific target organ toxicity (single exposure) STOT SE 1 and 2 Based on available data, the classification criteria are not met. STOT SE 3 Irritation to respiratory tract: May cause respiratory irritation - inhalation Narcotic effects Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) STOT RE 1 and 2 Based on available data, the classification criteria are not met. Aspiration hazard Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

12.1.1 Aquatic toxicity

Acute (short-term) fish toxicity

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Calcium Nitrate	44.8 ug/l	3-96 h / NA DLY	Pimephales promelas	Physiology – EP Response	unmeasured	163383 Dew,W.A., C.M. Wood, and G.G. Pyle, 2012
Potassium nitrate	5,500 mg/l	24 h	Lepomis macrochirus	LC50	unmeasured	915 Dowden,B.F., and H.J. Bennett, 1965
Edetic acid	167,000 ug/l	24 h	lctalurus punctatus	LC50	unmeasured	934 Clemens,H.P., and K.E. Sneed, 1959

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Chronic (long-term) fish toxicity									
	Effect dose/ Concentration	Test duration	Species	Result/ Evaluation	Method	Remark			
Calcium Nitrate	800,000 ug/L	10 days	Gasterosteus aculeatus	Mortality	unmeasured	2851 Jones,J.R.E., 1939			
Potassium nitrate	300 mg/l	40 days	Heteropneuste s fossilis	LOEC	unmeasured	115928 Srivastava,P.N., and A.S. Narain, 1985			
Edetic acid	10,000 ug/l	120 day	Cyprinus carpio	No Effect	unmeasured	14370 Kaviraj,A., and S. Das, 1995			

Acute (short-term) toxicity to crustacean

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Potassium nitrate	>450 - <500 mg/l	12 h	Portunus pelagicus	LC50	unmeasured	100646 Romano,N., and C. Zeng, 2007
Edetic Acid	122,000 ug/l	24 h	Daphnia magna	EC50 – ITX	unmeasured	16601 Janssen,C.R., E.Q. Espiritu, and G. Persoone, 1993

Chronic (long-term) toxicity to crustacean

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Potassium nitrate	900 mg/l	4.2 days	Daphnia magna	LC50	unmeasured	915 Dowden,B.F., and H.J. Bennett, 1965
Edetic Acid	226 – 234 mg/L	48 h	Daphnia magna	LC50	unmeasured	117622 Sankaramanach i,S.K., and S.R. Qasim, 1999

12.2 Persistence and degradability Biodegradation: Assessment / Classification: No information available.

- 12.3 Bioaccumulative potential Assessment / Classification: No information available.
- 12.4 Mobility in soil Assessment / Classification: No information available.
- 12.5 Results of PBT and vPvB assessment This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:

Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

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13.2 Additional information:

Irrigation return flows are not considered hazardous waste.

The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

The product does not have an EPA Hazardous Waste Number.

Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)	
14.1 UN No.		Noi	n dangerous good		
14.2 UN Proper shipping name			Not applicable		
14.3 Transport hazard class(es)			Not applicable		
Hazard label(s)			Not applicable		
14.4 Packing group	Not applicable				
14.5 Envirommental hazards			Not applicable		

14.6 Special precautions for user: None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

14.8 Additional information

14.8.1	All transport carriers
14.8.2	Land transport (ADR/RID)
	Limited quantity: Not applicable
	Special provisions: None
	Tunnel restriction code: Not applicable
	Classification code: Not applicable
	Transport category: Not applicable
	Hazard identification number (Kemler No.): Not applicable
	Remark: Non dangerous good
14.8.3	Inland waterway transport (ADN)
	Limited quantity: Not applicable
	Special provisions: None
	Category: Not applicable
	Remark: Non dangerous good
14.8.4	Sea transport (IMDG)
	Limited quantity: Not applicable
	Special provisions: None
	Marine pollutant: No
	Segregation group: Not applicable
	Remark: Non dangerous good
14.8.5	Air transport (ICAO-TI / IATA-DGR)
	Limited quantity: Not applicable
	Special provisions: None
	Remark: Non dangerous good

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the mixture

15.1.1 US Federal

SARA Title III Rules Section 313 Toxic Chemicals This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372. Section 311/312 Hazard Classes Acute Health Hazard: None Chronic Health Hazard: None Fire Hazard: None Release of Pressure: None Reactive Hazard: None

GP3 Micro

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 15.1.2 US State Regulations California Proposition 65 This product does not contain any Proposition 65 chemicals
 15.1.3 Canada

WHIMIS Classification

Not classified

This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.1.4 European Union Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP] No additional information available.

15.2 Chemical Safety Assessment: No additional information available.

Section 16: OTHER INFORMATION

16.1 Indication of changes

Version No.: 1.1 - 08/03/2016

16.2 Disclaimer:

The information provided on this SDS is believed to be accurate to the best of our knowledge, but is not warranted to be so. The information provided is intended to present guidance for safe handling, use, processing, storage, transport, disposal, and discharge; it is not intended to be a guarantee or quality specification. Green Planet LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if safety procedure are not adhered to as stipulated in the SDS. Furthermore, Green Planet LLC assumes no responsibility for injury caused by abnormal use of the product even if reasonable safety procedures are followed. It is the responsibility of the recipient of this SDS to ensure that information given here is read and understood by all who use, handle, dispose of, or in any way come in contact with the product.

Massive

Version: 1.1

Safety Data Sheet

Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

- 1.1 Product identifier: MASSIVE
- 1.1.1 Mixtures
- 1.1.2 Other means of identification: Green Planet Massive Bloom Booster
- 1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant identified uses:

Specialty fertilizer desinged to be used as a bloom booster to enhance the quality of flowers and improve yield in soil, soilless, coco coir, hydroponic or any other growing media application.

1.2.2 Uses advised against:

N/A

- 1.3 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd 3 Legacy Rd EPPING VIC 3076 Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au
- 1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification Skin Irrit. 3 - H316

Eye Irrit. 2B - H320

2.2 Label elements Hazard pictograms: N/A

> Signal word: Warning

Hazard statements:	
H316	Causes mild skin irritation
H320	Causes eye irritation.
Precautionary statem	nents:
P101	If medical advice is needed, have product container or label on hand.
P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice.

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2.3

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Other hazards SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes. INHALATION: No data available. CONTACT WITH SKIN: Exposure may cause mild skin irritation. EYE CONTACT: Contact can cause eye irritation. **INGESTION:** Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Description of the mixture:

Aqueous solution of monoammonium phosphate, potassium nitrate, magnesium sulfate, monopotassium phosphate.

Ingredients: 3.1.2

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification
Water	7732-18-5		231-791-2	60-80%	Not Classified
Ammonium	7722-76-1		231-764-5	5-10%	Not Classified
dihydrogenorthophosphate					
Potassium nitrate	7757-79-1		231-818-8	5-10%	Category 3: Oxidizing Solid
Magnesium Sulfate	7487-88-9		231-298-2	5-10%	Not Classified
Potassium	7778-77-0		231-913-4	5-10%	Not Classified
dihydrogenorthophosphate					

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 **Description of first aid measures**

Following inhalation: 4.1.1

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention if allergic response exhibited.

4.1.2. Following skin contact:

Rinse the affected area with plenty of water. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before reuse.

4.1.3. Following eye contact:

If product enters the eyes, open eyes while under gentle running water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.

4.1.4 Following ingestion:

Wash out mouth with plenty of water. Give large quantities of water. Do not induce vomiting unless instructed to do so by medical personal. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Irritation to eyes and skin.

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Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products: Oxides of carbon, oxides of nitrogen.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

<u>Protective equipment:</u> Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

6.1.2 For emergency responders:

Personal protective equipment: For complete personal protection, see section 8.

6.2 Environmental precautions

If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant authorities if the product has caused environmental pollution. Removal by mechanical means (i.e. vacuuming with HEPA filters) preferred. Solids may be placed into appropriate containers for disposal.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Sweep or vacuum (equipped with a HEPA filter) the liquid and dispose in accordance with local waste disposal regulations. Removal by mechanical means (i.e. vacuuming with HEPA filters) preferred. Solids may be placed into appropriate containers for disposal. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH**.

6.4 Reference to other sections: See "Section 8" for a complete list of protective equipment.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 **Protective measures:**

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

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7.2 Conditions for safe storage, including any incompatibilities Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

Recommendations: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Ocupational exposure limits:

No national limit values established for monoammonium phosphate, potassium nitrate, magnesium sulfate or monopotassium phosphate.

Limit value type (country of origin)	Substance name	EC-No.	CAS-No.	Occupationa limit value	l exposure	Monitoring and observation processes	Peak limitation	Source
				Long term	Short term			

8.1.2 Exposure limits at intended use: None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

<u>Suitable eye protection:</u> Safety goggles or safety glasses. <u>Other eye protection measures:</u> Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

<u>Body protection:</u> Use body protection appropriate for the task. Do not wear sandals, shorts, or cut of t-shirts. <u>Other skin protection measures:</u> If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid

Colour: Amber to Light Brown

Odour: Vanilla/Molasses

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		t		
	value	temperature	pressure	
pH	4.5	Ambie	ent	
Melting point/freezing point	-4.0 °C	Ambie	ent	
Initial boiling point/boiling range	100 °C	Ambie	ent	
Flash point		Not Available		
Evaporation rate		Not Applicable		
Flammability (solid, gas)		Not Available		
Upper/lower flammability or explosive limits		Not Available		
Upper explosive limits		Not Available		
Lower explosive limits	Not Available			
Vapour pressure	Not Applicable			
Vapour density	Not Applicable			
Relative density	1.09 g/ml	Ambie	ent	
Solubility(ies)		Complete in wate	r	
Partition coefficient: n-octanol/water		Not available		
Auto-ignition temperature		Not available		
Decomposition temperature		Not available		
Viscosity		Not Applicable		
Viscosity, dynamic	Not Applicable			
Viscosity, cinematic		Not Applicable		
Explosive properties		Not considered explo	sive	
Oxidising properties		Not considered an oxi	dizer	

Section 10: STABILITY AND REACTIVITY

- 10.1 Reactivity
- Not reactive.
- 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions.
 10.2 Describulity of hazardous reactions.
- 10.3 Possibility of hazardous reactions None are known.
- 10.4 Conditions to avoid:
- Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight.
- **10.5** Incompatible materials: None are known.
- **10.6 Hazardous decomposition products:** No known hazardous decomposition products.

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Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Practical experience / human evidence: May cause mild skin irritation.

Assessment / Classification: Category 3 – Skin Irritant.

Eye damage/irritation

Practical experience / human evidence: May cause eye irritation.

Assessment / Classification: Category 2B – Eye Irritant.

Sensitization to the respiratory tract/skin

Based on available data, the classification criteria are not met.

Sensitization to the respiratory tract

Based on available data, the classification criteria are not met.

Skin sensitization

Based on available data, the classification criteria are not met.

CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Overall assessment on CMR properties:

Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CaIEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies.

Specific target organ toxicity (single exposure)

STOT SE 1 and 2

Based on available data, the classification criteria are not met.

STOT SE 3

Irritation to respiratory tract:

Based on available data, the classification criteria are not met.

Narcotic effects

Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)

STOT RE 1 and 2

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

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Section 12: ECOLOGICAL INFORMATION

12.1 **Toxicity:**

12.1.1 Aquatic toxicity

Acute (short-term) fish toxicity

Acute (Short-terni)	iii toxicity					
	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	19,000 mg/l	24 h	Lepomis macrochirus	LC50	unmeasured	J. Water Pollut. Control Fed.37(9): 1308- 1316
Chronic (long-term) fish toxicity					
	Effect dose/ Concentration	Test duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	8,000,000 – 11,000,000 ug/L	2 E x WK 1-6 week(s)	Oncorhynchus mykiss	Mortality	unmeasured	M.S.Thesis, University of Wyoming, Laramie, WY:59 p.
Potassium Dihydrogenphosphate	Diet: 6.14 %	27 weeks	Oncorhynchus mykiss	Mortality 32.3 %	unmeasured	Nippon Suisan Gakkaishi59(8): 1395-1400
Acute (short-term)	toxicity to crus	tacean	·			
	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	2,180 – 2,500 mg/L	24 h	Daphnia magna	LC50	unmeasured	Environ. Toxicol. Chem.16(10): 2009-2019
Chronic (long-term) toxicity to cru	istacean				
	Effect dose/ Concentration	Test duration	Species	Result/ Evaluation	Method	Remark
Magnesium Sulfate	360 mg/L	3 x WK	Daphnia	Mortality	unmeasured	Hvdrobiologia10

Magnesium Sulfate	360 mg/L	3 x WK	Daphnia	Mortality	unmeasured	Hydrobiologia10
		3 weeks	magna			8:25-31
Potassium Dihydrogenphosphate	Diet: 6.14 %	27 weeks	Oncorhynchus mykiss	Mortality 32.3 %	unmeasured	Nippon Suisan Gakkaishi59(8):
						1395-1400

12.2 Persistence and degradability **Biodegradation:**

Assessment / Classification:

Readily biodegradable (according to OECD Guideline 302B).

Bioaccumulative potential

Assessment / Classification: The product completely dissociates in water. Based on physiochemical properties (high water solubility), the product has a

low potential for bioaccumulation.

12.4 Mobility in soil Assessment / Classification:

The product has a low potential for adsorption. Portion not taken up by the plants, can leach into ground water.

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.3

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Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:

Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

13.2 Additional information:

Irrigation return flows are not considered hazardous waste.

The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. The product does not have an EPA Hazardous Waste Number.

Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)		
14.1 UN No.	Non dangerous good					
14.2 UN Proper shipping name			Not applicable			
14.3 Transport hazard class(es)			Not applicable			
Hazard label(s)	Not applicable					
14.4 Packing group	Not applicable					
14.5 Envirommental hazards	Not applicable					

- 14.6 Special precautions for user: None
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

14.8 Additional information

14.8.1	All transport carriers
14.8.2	Land transport (ADR/RID)
	Limited quantity: Not applicable
	Special provisions: None
	Tunnel restriction code: Not applicable
	Classification code: Not applicable
	Transport category: Not applicable
	Hazard identification number (Kemler No.): Not applicable
	Remark: Non dangerous good
14.8.3	Inland waterway transport (ADN)
	Limited quantity: Not applicable
	Special provisions: None
	Category: Not applicable
	Remark: Non dangerous good
14.8.4	Sea transport (IMDG)
	Limited quantity: Not applicable
	Special provisions: None
	Marine pollutant: No
	Segregation group: Not applicable
	Remark: Non dangerous good
14.8.5	Air transport (ICAO-TI / IATA-DGR)
141010	Limited quantity: Not applicable
	Special provisions: None
	Remark: Non dangerous good
	Kennarki Non dangerede good

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Safety Data Sheet

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the mixture

15.1.1 US Federal

SARA Title III Rules

Section 313 Toxic Chemicals This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372. Section 311/312 Hazard Classes Acute Health Hazard: None Chronic Health Hazard: None

Fire Hazard: None Release of Pressure: None

Reactive Hazard: None

15.1.2 US State Regulations California Proposition 65

This product does not contain any Proposition 65 chemicals

15.1.3 Canada

WHIMIS Classification

Not classified

This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.1.4 European Union Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP] Not classified as hazardous.

15.2 Chemical Safety Assessment: For this substance a chemical safety assessment is not required.

Section 16: OTHER INFORMATION

16.1 Indication of changes

Version No.: 1.1 - 14/01/2016

16.2 Disclaimer:

The information provided on this SDS is believed to be accurate to the best of our knowledge, but is not warranted to be so. The information provided is intended to present guidance for safe handling, use, processing, storage, transport, disposal, and discharge; it is not intended to be a guarantee or quality specification. Green Planet LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if safety procedure are not adhered to as stipulated in the SDS. Furthermore, Green Planet LLC assumes no responsibility for injury caused by abnormal use of the product even if reasonable safety procedures are followed. It is the responsibility of the recipient of this SDS to ensure that information given here is read and understood by all who use, handle, dispose of, or in any way come in contact with the product.

PK Spike

Safety Data Sheet

Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

- 1.1 Product identifier: PK Spike
- 1.1.1 Mixture
- 1.1.2 Other means of identification: Green Planet PK Spike, Spike
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- **1.2.1** Relevant identified uses: Phosphorus and potassium additive desinged to be used as a bloom booster to enhance the quality of flowers and improve yield in soil, soilless, coco coir, hydroponic or any other growing media application.
- 1.2.2 Uses advised against: Mixing the product in concentrate with other fertilizer products. Reasons: formation of precipitate, sediment, or insoluble components.
 1.3 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd

3 Legacy Rd EPPING VIC 3076 Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au

1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification Skin Irrit. 3 – H316 Eye Irrit. 2B –H320

2.2 Label elements

Laber cicilients	
Hazard pictograms	:
N/A	
Signal word:	
Warning	
Hazard statements	
H316	Causes mild skin irritation.
H320	Causes eye irritation.
Precautionary state	ements:
P101	If medical advice is needed, have product container or label on hand.
P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and
	easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice.

2.3 Other hazards

REACTIVITY: Not reactive.

SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin and eyes.

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PK Spike

Safety Data Sheet

ACUTE:

INHALATION: No data available.

CONTACT WITH SKIN: Exposure may cause mild skin irritation.

EYE CONTACT: Contact can cause eye irritation.

INGESTION: Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Description of the mixture:

Aqueous solution of potassium phosphate, potassium acetate, potassium citrate, potassium metaphosphate.

3.1.2 Ingredients:

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification
Potassium dihydrogenorthophosphate	7778-77-0		231-913-4	50%	Not Classified
Potassium acetate	127-08-2		204-822-2	10%	Not Classified
Tripotassium citrate	866-84-2		212-755-5	10%	Not Classified
Potassium metaphosphate	7790-53-6		232-212-6	10%	Not Classified

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Following inhalation:

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention.

4.1.2. Following skin contact:

Rinse the affected area with plenty of water. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before reuse.

4.1.3. Following eye contact:

If product enters the eyes, open eyes while under gentle running water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention.

4.1.4 Following ingestion:

Wash out mouth with plenty of water. Do not induce vomiting unless instructed to do so by medical personal. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Irritant. May cause skin and eye irritation. Effects of exposure to substance may be delayed.

4.2.1 Inhalation:

May cause respiratory irritation if inhaled. Symptoms may be delayed.

4.2.2. Skin contact:

Contact may cause irritation.

4.2.3. Eye contact:

Contact may cause irritation.

4.2.4 Ingestion:

Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Safety Data Sheet

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.

- 5.2 Special hazards arising from the substance or mixture:
- Hazardous combustion products: None are known.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Protective equipment: Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

6.1.2 For emergency responders:

Personal protective equipment: For complete personal protection, see section 8.

6.2 Environmental precautions If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant authorities if the product has caused environmental pollution.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH.**

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

<u>Recommendations</u>: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

Safety Data Sheet

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Ocupational exposure limits:

Limit value type (country of	Substance name	Occupational limit value	exposure	EC-No.	CAS-No.	Monitoring and observation processes	Peak limitation	Source
origin)		Long term	Short term					
	n/a							

8.1.2 Exposure limits at intended use:

None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure controls.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

Suitable eye protection: Face shield. Chemical safety goggles.

Other eye protection measures: Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

Body protection: Use body protection appropriate for the task. Chemical resistant suit and boots. Do not wear sandals, shorts, or cut of t-shirts.

Other skin protection measures: If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

Safety Data Sheet

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid **Colour:** Transparent **Odour:** Odourless value temperature pressure pН 7.6 Ambient Melting point/freezing point -10°C Ambient Initial boiling point/boiling range 100°C Ambient Flash point Not Available Evaporation rate Not Applicable Flammability (solid, gas) Not Available Upper/lower flammability or explosive limits Not Available Upper explosive limits Not Available Lower explosive limits Not Available Vapour pressure Not Available Vapour density Not Applicable Relative density 1.3 g/ml Ambient Solubility(ies) Complete in water Not available Partition coefficient: n-octanol/water Auto-ignition temperature Not available Decomposition temperature Not available Viscosity Not Applicable Viscosity, dynamic Not Applicable Not Applicable Viscosity, cinematic Not considered explosive Explosive properties **Oxidising properties** Not considered an oxidizer

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity No data available. 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions. 10.3 Possibility of hazardous reactions None are known. 10.4 Conditions to avoid: Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight. 10.5 Incompatible materials: None are known. Hazardous decomposition products: 10.6 No known hazardous decomposition products.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity

Based on available data, the classification criteria are not met. Skin corrosion/irritation Practical experience / human evidence: May cause mild skin irritation. Assessment / Classification: Category 3 Skin Irritant

PK Spike

Safety Data Sheet

Eve damage/irritation Practical experience / human evidence: May cause eye irritation. Assessment / Classification: Category 2B Eye Irritant Sensitization to the respiratory tract/skin Based on available data, the classification criteria are not met. Sensitization to the respiratory tract Based on available data, the classification criteria are not met. Skin sensitization Based on available data, the classification criteria are not met. CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction) Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. **Reproductive toxicity** Based on available data, the classification criteria are not met. **Overall assessment on CMR properties:** Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CalEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies. Specific target organ toxicity (single exposure) STOT SE 1 and 2 Based on available data, the classification criteria are not met. STOT SE 3 Irritation to respiratory tract: May cause respiratory irritation - inhalation Narcotic effects Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) STOT RE 1 and 2 Based on available data, the classification criteria are not met. Aspiration hazard

Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

12.1.1 Aquatic toxicity

Chronic (long-term) fish toxicity

	Effect dose/ Concentration	Test duration	Species	Result/ Evaluation	Method	Remark
Potassium Dihydrogenphosphate	Diet: 6.14 %	27 weeks	Oncorhynchus mykiss	Mortality 32.3 %	unmeasured	Nippon Suisan Gakkaishi59(8): 1395-1400

Chronic (long-term) toxicity to crustacean

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Potassium Dihydrogenphosphate	Diet: 6.14 %	27 weeks	Oncorhynchus mykiss	Mortality 32.3 %	unmeasured	Nippon Suisan Gakkaishi59(8): 1395-1400

PK Spike

Safety Data Sheet

12.2 Persistence and degradability Biodegradation: Assessment / Classification:

Readily biodegradable (according to OECD Guideline 302B).

 12.3 Bioaccumulative potential Assessment / Classification: The product completely dissociates in water. Based on physiochemical properties (high water solubility), the product has a low potential for bioaccumulation.
 12.4 Mobility in soil

Assessment / Classification: The product has a low potential for adsorption. Portion not taken up by the plants, can leach into ground water. 12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:

Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

13.2 Additional information:

Irrigation return flows are not considered hazardous waste. The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. The product does not have an EPA Hazardous Waste Number.

Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)			
14.1 UN No.	Non dangerous good						
14.2 UN Proper shipping name			Not applicable				
14.3 Transport hazard class(es)			Not applicable				
Hazard label(s)			Not applicable				
14.4 Packing group	Not applicable						
14.5 Envirommental hazards	Not applicable						

14.6 Special precautions for user: None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

14.8 Additional information

14.8.1 All transport carriers

14.8.2 Land transport (ADR/RID)

Limited quantity: Not applicable Special provisions: None Tunnel restriction code: Not applicable Classification code: Not applicable Transport category: Not applicable Hazard identification number (Kemler No.): Not applicable Remark: Non dangerous good 14.8.3 Inland waterway transport (ADN) Limited quantity: Not applicable Special provisions: None Category: Not applicable Remark: Non dangerous good

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PK Spike	
14.8.4	Sea transport (IMDG)
	Limited quantity: Not applicable
	Special provisions: None
	Marine pollutant: No
	Segregation group: Not applicable
	Remark: Non dangerous good
14.8.5	Air transport (ICAO-TI / IATA-DGR)
	Limited quantity: Not applicable
	Special provisions: None
	Remark: Non dangerous good

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the mixture

15.1.1 US Federal

SARA Title III Rules

Section 313 Toxic Chemicals This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372. Section 311/312 Hazard Classes Acute Health Hazard: None Chronic Health Hazard: None Fire Hazard: None Release of Pressure: None Reactive Hazard: None

15.1.2 US State Regulations California Proposition 65

This product does not contain any Proposition 65 chemicals

15.1.3 Canada

WHIMIS Classification Not classified

This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.1.4 European Union Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP] No additional information available.

15.2 Chemical Safety Assessment: No additional information available.

Section 16: OTHER INFORMATION

16.1 Indication of changes

Version No.: 1.0 - 07/04/2017

16.2 Disclaimer:

The information provided on this SDS is believed to be accurate to the best of our knowledge, but is not warranted to be so. The information provided is intended to present guidance for safe handling, use, processing, storage, transport, disposal, and discharge; it is not intended to be a guarantee or quality specification. Green Planet LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if safety procedure are not adhered to as stipulated in the SDS. Furthermore, Green Planet LLC assumes no responsibility for injury caused by abnormal use of the product even if reasonable safety procedures are followed. It is the responsibility of the recipient of this SDS to ensure that information given here is read and understood by all who use, handle, dispose of, or in any way come in contact with the product.

Plant Guard

Safety Data Sheet

Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

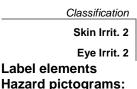
- 1.1 Product identifier: Plant Guard
- 1.1.1 Mixture
- 1.1.2 Other means of identification: Potassium Silicate
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- 1.2.1 Relevant identified uses: Potassium silicate specialty fertilizer formualted for use in: soil, soilless, coco coir, hydroponic or any other growing media application.
- 1.2.2 Uses advised against: Mixing the product in concentrate with other fertilizer products. Reasons: formation of precipitate, sediment, or insoluble components.
 1.3 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd 3 Legacy Rd

EPPING VIC 3076 Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au

1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:





2.2

GHS07 Signal word: Warning Hazard statements: H315 Causes skin irritation. H319 Causes serious eye irritation. Precautionary statements: Do not get in eyes, on skin, or on clothing. P262 P280 Wear protective gloves, clothing, eye protection, and face protection. P303+P353+P361 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

C

Plant Guard

Safety Data Sheet

2.3 Other hazards

REACTIVITY: Dries to form glass film, which can easily cut skin. Spilled material is very slippery. Can etch glass if not promptly removed.

SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin and eyes.

ACUTE:

INHALATION: No data available.

CONTACT WITH SKIN: Causes skin irritation.

EYE CONTACT: Causes serious eye irritation.

INGESTION: Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

- 3.1.1 Description of the mixture:
- Potassium Silicate

3.1.2 Ingredients:

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification
Water	7732-18-5		231-791-2	75%	Not Classified
Silicic acid, potassium salt,	7732-18-5		215-199-1	10-30%	Category 2: Skin Irritation. Category 1: Eye Damage.
potassium silicate					Category 3: STOT SE

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Following inhalation:

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention.

4.1.2. Following skin contact:

Take off all contaminated clothing. Immediately flush skin with plenty of water for at least 15 minutes. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

4.1.3. Following eye contact:

Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Obtain medical attention.

4.1.4 Following ingestion:

If swallowed, do not induce vomiting. Rinse mouth with plenty of water. Seek medical advice immediately. Bring the container and SDS.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Irritant. May cause skin and eye irritation. Effects of exposure to substance may be delayed.

4.2.1 Inhalation:

May cause respiratory irritation if inhaled. Symptoms may be delayed.

4.2.2. Skin contact:

Contact may cause irritation.

4.2.3. Eye contact:

Contact may cause serious irritation.

4.2.4 Ingestion:

Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Safety Data Sheet

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.

- 5.2 Special hazards arising from the substance or mixture:
- Hazardous combustion products: None are known.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Protective equipment: Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

6.1.2 For emergency responders:

Personal protective equipment: For complete personal protection, see section 8.

6.2 Environmental precautions If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant

authorities if the product has caused environmental pollution.6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH.**

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

<u>Recommendations</u>: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

Safety Data Sheet

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Ocupational exposure limits:

Limit value type (country of	Substance name	Occupationa limit value	exposure	EC-No.	CAS-No.	Monitoring and observation processes	Peak limitation	Source
origin)		Long term	Short term					
UK EH40	Silicic acid, potassium		2 mg/m ³	215-199-1	7732-18-5		15 min	EH40

8.1.2 Exposure limits at intended use: None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure controls.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

Suitable eye protection: Face shield. Chemical safety goggles.

Other eye protection measures: Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

Body protection: Use body protection appropriate for the task. Chemical resistant suit and boots. Do not wear sandals, shorts, or cut of t-shirts.

Other skin protection measures: If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

Safety Data Sheet

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid	Colour: C	olorless	Odour: Odourless		
		value	temperature	pressure	
	pН	12.0	Ambie	ent	
Melting p	oint/freezing point	0°C Ambient			
Initial boiling p	ooint/boiling range	100°C	Ambie	ent	
	Flash point		Not Available		
	Evaporation rate		Not Applicable		
	Flammability (solid, gas)				
Upper/lower flammability	· ·	Not Available			
	er explosive limits	Not Available			
Low	er explosive limits	Not Available			
	Vapour pressure				
	Vapour density				
	Relative density	r 1.04 g/ml Ambient			
	Solubility(ies)				
	nt: n-octanol/water		Not available		
•	nition temperature	Not available			
Decompo	sition temperature	Not available			
	Viscosity	Not Applicable			
	/iscosity, dynamic	· · ·			
	iscosity, cinematic				
	plosive properties	· · · · · ·			
0:	kidising properties	ies Not considered an oxidizer			

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity No data available. 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions. Possibility of hazardous reactions 10.3 None are known. 10.4 Conditions to avoid: Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight. 10.5 Incompatible materials: None are known. 10.6 Hazardous decomposition products: No known hazardous decomposition products.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity

Based on available data, the classification criteria are not met. Skin corrosion/irritation Practical experience / human evidence: Causes skin irritation. Assessment / Classification: Category 2 Skin Irritant

Plant Guard

Safety Data Sheet

Eye damage/irritation Practical experience / human evidence: Causes serious eye irritation. Assessment / Classification: Category 2 Eye Irritant Sensitization to the respiratory tract/skin Based on available data, the classification criteria are not met. Sensitization to the respiratory tract Based on available data, the classification criteria are not met. Skin sensitization Based on available data, the classification criteria are not met. CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction) Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. **Reproductive toxicity** Based on available data, the classification criteria are not met. **Overall assessment on CMR properties:** Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CalEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies. Specific target organ toxicity (single exposure) STOT SE 1 and 2 Based on available data, the classification criteria are not met. STOT SE 3 Irritation to respiratory tract: May cause respiratory irritation - inhalation Narcotic effects Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) STOT RE 1 and 2 Based on available data, the classification criteria are not met. Aspiration hazard

Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

12.1.1 Aquatic toxicity

Acute (short-term) fish toxicity

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Silicic acid, sodium salt	256 mg/l	24 h NR	Rainbow Trout	Mortality	unmeasured	20590 Department of Scientific and Industrial Research, 1953

Acute (short-term) toxicity to crustacean

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Silicic acid, sodium salt	>450 - <500 mg/l	48 h	Ceriodaphnia dubia	EC50 intoxication	unmeasured	20672 Warne,M.S.J., and A.D. Schifko, 1999

Plant Guard

Safety Data Sheet

12.2 Persistence and degradability Biodegradation:

Assessment / Classification:

Inorganic. Soluble silicates, upon dilution, rapidly depolymerize into molecular species indistinguishable from natural dissolved silica.

- 12.3 Bioaccumulative potential Assessment / Classification: Inorganic. The substance has no potential for bioaccumulation.
 12.4 Mobility in active
- 12.4 Mobility in soil Assessment / Classification: No information available.
- 12.5 Results of PBT and vPvB assessment This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:

Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

13.2 Additional information:

Irrigation return flows are not considered hazardous waste. The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. The product does not have an EPA Hazardous Waste Number.

Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)			
14.1 UN No.	Non dangerous good						
14.2 UN Proper shipping name	Not applicable						
14.3 Transport hazard class(es)	Not applicable						
Hazard label(s)	Not applicable						
14.4 Packing group	Not applicable						
14.5 Envirommental hazards	s Not applicable						

- 14.6 Special precautions for user: Unsuitable containers: Aluminum
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

14.8 Additional information

- 14.8.1 All transport carriers
- 14.8.2Land transport (ADR/RID)
 - Limited quantity: Not applicable Special provisions: None Tunnel restriction code: Not applicable Classification code: Not applicable Transport category: Not applicable Hazard identification number (Kemler No.): Not applicable Remark: Non dangerous good

14.8.3 Inland waterway transport (ADN) Limited quantity: Not applicable Special provisions: None Category: Not applicable Remark: Non dangerous good

Safety Data Sheet

14.8.4 Sea transport (IMDG) Limited quantity: Not applicable Special provisions: None Marine pollutant: No Segregation group: Not applicable Remark: Non dangerous good 14.8.5 Air transport (ICAO-TI / IATA-DGR) Limited quantity: Not applicable Special provisions: None Remark: Non dangerous good

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the mixture

15.1.1 US Federal

Plant Guard

SARA Title III Rules

Section 313 Toxic Chemicals This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372. Section 311/312 Hazard Classes Acute Health Hazard: None Chronic Health Hazard: None Fire Hazard: None Release of Pressure: None Reactive Hazard: None

15.1.2 US State Regulations California Proposition 65

This product does not contain any Proposition 65 chemicals

15.1.3 Canada WHIMIS Classification

Not classified

This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.1.4 European Union Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP] No additional information available.

15.2 Chemical Safety Assessment: No additional information available.

Section 16: OTHER INFORMATION

16.1 Indication of changes

Version No.: 1.0 - 07/12/2016

16.2 Disclaimer:

The information provided on this SDS is believed to be accurate to the best of our knowledge, but is not warranted to be so. The information provided is intended to present guidance for safe handling, use, processing, storage, transport, disposal, and discharge; it is not intended to be a guarantee or quality specification. Green Planet LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if safety procedure are not adhered to as stipulated in the SDS. Furthermore, Green Planet LLC assumes no responsibility for injury caused by abnormal use of the product even if reasonable safety procedures are followed. It is the responsibility of the recipient of this SDS to ensure that information given here is read and understood by all who use, handle, dispose of, or in any way come in contact with the product.

Pro Cal

Safety Data Sheet

Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

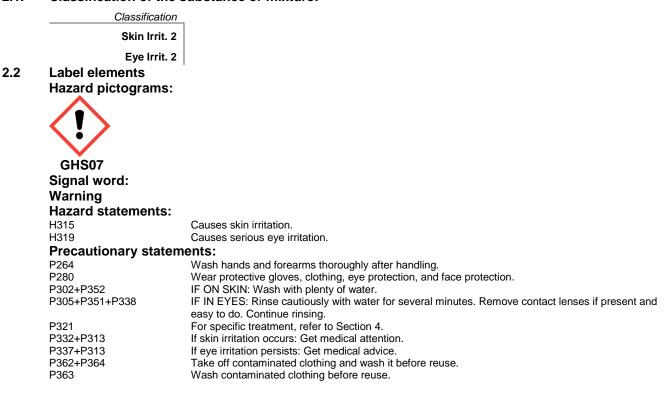
- 1.1 Product identifier: Pro Cal
- 1.1.1 Mixture
- 1.1.2 Other means of identification: Green Planet Pro Cal, Pro-Cal, ProCal
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- 1.2.1 Relevant identified uses: Calcium and magnesium additive formulated to correct calcium and magnesium deficiencies in soil, soilless, coco coir, hydroponic or any other growing media application.
- Uses advised against: Mixing the product in concentrate with other fertilizer products. Reasons: formation of precipitate, sediment, or insoluble components.
 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd

Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au

1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:



C

Pro Cal

Safety Data Sheet

2.3 Other hazards

REACTIVITY: Not reactive.

SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin and eyes.

ACUTE:

INHALATION: No data available.

CONTACT WITH SKIN: Causes skin irritation.

EYE CONTACT: Causes serious eye irritation.

INGESTION: Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Description of the mixture:

Aqueous solution of Calcium nitrate, magnesium nitrate, FeEDTA, MnEDTA, ZnEDTA, Potassium Borate.

3.1.2 Ingredients:

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification
Water	7732-18-5		231-791-2	35-65%	Not Classified
Calcium Nitrate	10124-37-5		233-332-1	10-30%	Category 2: Skin Irritation. Category 2: Eye Irritation. Category 3: Oxidizing Solid
Magnesium Nitrate	10377-60-3		233-826-7	5-10%	Category 3: Oxidizing Solid Catergory 2: Eye Irritant
Edetic Acid	60-00-4		200-449-4	1-5%	Category 2: Eye Irritation.

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Following inhalation:

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention.

4.1.2. Following skin contact:

Take off all contaminated clothing. Immediately flush skin with plenty of water for at least 15 minutes. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

4.1.3. Following eye contact:

Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Obtain medical attention.

4.1.4 Following ingestion:

If swallowed, do not induce vomiting. Rinse mouth with plenty of water. Seek medical advice immediately. Bring the container and SDS.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Irritant. May cause skin and eye irritation. Effects of exposure to substance may be delayed.

4.2.1 Inhalation:

May cause respiratory irritation if inhaled. Symptoms may be delayed.

4.2.2. Skin contact:

Contact may cause irritation.

Pro Cal

Safety Data Sheet

4.2.3. Eye contact:

Contact may cause serious irritation.

4.2.4 Ingestion:

Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products: None are known.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

<u>Protective equipment:</u> Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

6.1.2 For emergency responders:

Personal protective equipment: For complete personal protection, see section 8.

6.2 Environmental precautions

If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant authorities if the product has caused environmental pollution.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH.**

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

<u>Recommendations</u>: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

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Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Ocupational exposure limits:

Limit value type (country of	Substance name	Occupational limit value	exposure	EC-No.	CAS-No.	Monitoring and observation processes	Peak limitation	Source
origin)		Long term	Short term					
	n/a							

8.1.2 Exposure limits at intended use:

None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure controls.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

Suitable eye protection: Face shield. Chemical safety goggles.

Other eye protection measures: Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

Body protection: Use body protection appropriate for the task. Chemical resistant suit and boots. Do not wear sandals, shorts, or cut of t-shirts.

Other skin protection measures: If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid **Colour:** Burgundy **Odour:** Mineral value temperature pressure pН 3.5 Ambient Melting point/freezing point 0°C Ambient Initial boiling point/boiling range 100°C Ambient Flash point Not Available Evaporation rate Not Applicable Flammability (solid, gas) Not Available Upper/lower flammability or explosive limits Not Available Upper explosive limits Not Available Lower explosive limits Not Available Vapour pressure Not Available Vapour density Not Applicable Relative density 1.09 g/ml Ambient Solubility(ies) Complete in water Not available Partition coefficient: n-octanol/water Auto-ignition temperature Not available Decomposition temperature Not available Viscosity Not Applicable Viscosity, dynamic Not Applicable Not Applicable Viscosity, cinematic Not considered explosive Explosive properties **Oxidising properties** Not considered an oxidizer

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity No data available. 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions. 10.3 Possibility of hazardous reactions None are known. 10.4 Conditions to avoid: Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight. 10.5 Incompatible materials: None are known. Hazardous decomposition products: 10.6 No known hazardous decomposition products.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity

Based on available data, the classification criteria are not met. Skin corrosion/irritation Practical experience / human evidence: Causes skin irritation. Assessment / Classification: Category 2 Skin Irritant

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Eye damage/irritation Practical experience / human evidence: Causes serious eye irritation. Assessment / Classification: Category 2 Eye Irritant Sensitization to the respiratory tract/skin Based on available data, the classification criteria are not met. Sensitization to the respiratory tract Based on available data, the classification criteria are not met. Skin sensitization Based on available data, the classification criteria are not met. CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction) Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. Reproductive toxicity Based on available data, the classification criteria are not met. **Overall assessment on CMR properties:** Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CalEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies. Specific target organ toxicity (single exposure) STOT SE 1 and 2 Based on available data, the classification criteria are not met. STOT SE 3 Irritation to respiratory tract: May cause respiratory irritation - inhalation Narcotic effects Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) STOT RE 1 and 2 Based on available data, the classification criteria are not met. Aspiration hazard Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

12.1.1 Aquatic toxicity

Acute (short-term) fish toxicity

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Calcium Nitrate	44.8 ug/l	3-96 h / NA DLY	Pimephales promelas	Physiology – EP Response	unmeasured	163383 Dew,W.A., C.M. Wood, and G.G. Pyle, 2012
Edetic acid	167,000 ug/l	24 h	lctalurus punctatus	LC50	unmeasured	934 Clemens,H.P., and K.E. Sneed, 1959

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Chronic (long-term) fish toxicity										
	Effect dose/ Concentration	Test duration	Species	Result/ Evaluation	Method	Remark				
Calcium Nitrate	800,000 ug/L	10 days	Gasterosteus aculeatus	Mortality	unmeasured	2851 Jones,J.R.E., 1939				
Edetic acid	10,000 ug/l	120 day	Cyprinus carpio	No Effect	unmeasured	14370 Kaviraj,A., and S. Das, 1995				

Acute (short-term) toxicity to crustacean

	•					
	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Magnesium nitrate	32 – 320 mg/l	6 – 24 h	Daphnia magna	Mortality	unmeasured	45194 Tomasik,P., C.H.D. Magadza, S. Mhizha, and A. Chirume, 1995
Edetic Acid	122,000 ug/l	24 h	Daphnia magna	EC50 – ITX	unmeasured	16601 Janssen,C.R., E.Q. Espiritu, and G. Persoone, 1993

Chronic (long-term) toxicity to crustacean

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
Edetic Acid	226 – 234 mg/L	48 h	Daphnia magna	LC50	unmeasured	117622 Sankaramanach i,S.K., and S.R. Qasim, 1999

- 12.2 Persistence and degradability Biodegradation: Assessment / Classification: No information available.
- 12.3 Bioaccumulative potential Assessment / Classification: No information available.
- 12.4 Mobility in soil Assessment / Classification: No information available.
- **12.5 Results of PBT and vPvB assessment** This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:

Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

13.2 Additional information:

Irrigation return flows are not considered hazardous waste.

The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. The product does not have an EPA Hazardous Waste Number.

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Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)				
14.1 UN No.		Non dangerous good						
14.2 UN Proper shipping name			Not applicable					
14.3 Transport hazard class(es)			Not applicable					
Hazard label(s)			Not applicable					
14.4 Packing group	Not applicable							
14.5 Environmental hazards	Not applicable							

14.6 Special precautions for user: None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

14.8 Additional information

14.8.1 All	transport carriers
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14.8.2	Land transport (ADR/RID) Limited quantity: Not applicable Special provisions: None Tunnel restriction code: Not applicable Classification code: Not applicable Transport category: Not applicable Hazard identification number (Kemler No.): Not applicable
14.8.3	Remark: Non dangerous good Inland waterway transport (ADN) Limited quantity: Not applicable Special provisions: None Category: Not applicable
14.8.4	Remark: Non dangerous good Sea transport (IMDG) Limited quantity: Not applicable Special provisions: None Marine pollutant: No Segregation group: Not applicable
14.8.5	Segregation group: Not applicable Remark: Non dangerous good Air transport (ICAO-TI / IATA-DGR) Limited quantity: Not applicable Special provisions: None Remark: Non dangerous good

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the mixture

15.1.1 US Federal

SARA Trite III Rules Section 313 Toxic Chemicals This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372. Section 311/312 Hazard Classes Acute Health Hazard: None Chronic Health Hazard: None Fire Hazard: None Release of Pressure: None Reactive Hazard: None

15.1.2 US State Regulations

California Proposition 65 This product does not contain any Proposition 65 chemicals

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15.1.3 Canada

WHIMIS Classification Not classified

This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.1.4 European Union Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP] No additional information available.

15.2 Chemical Safety Assessment: No additional information available.

Section 16: OTHER INFORMATION

16.1 Indication of changes

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16.2 Disclaimer:

The information provided on this SDS is believed to be accurate to the best of our knowledge, but is not warranted to be so. The information provided is intended to present guidance for safe handling, use, processing, storage, transport, disposal, and discharge; it is not intended to be a guarantee or quality specification. Green Planet LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if safety procedure are not adhered to as stipulated in the SDS. Furthermore, Green Planet LLC assumes no responsibility for injury caused by abnormal use of the product even if reasonable safety procedures are followed. It is the responsibility of the recipient of this SDS to ensure that information given here is read and understood by all who use, handle, dispose of, or in any way come in contact with the product.

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Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

- 1.1 Product identifier: REZIN
- 1.1.1 Mixtures
- 1.1.2 Other means of identification: Green Planet ReZin
- 1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant identified uses:

Specialty fertilizer desinged to be used as a flavour, aroma, and essential oil booster for flowers and plants grown in soil, soilless, coco coir, hydroponic or any other growing media application.

1.2.2 Uses advised against:

N/A

- 1.3 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd 3 Legacy Rd EPPING VIC 3076 Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au
- 1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification Skin Irrit. 3 - H316 Eye Dam. 1 - H318

2.2 Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H316	Causes mild skin irritation						
H318	Causes Eye Damage						
Precautionary statements:							
P101	If medical advice is needed, have product container or label on hand.						
P102	Keep out of reach of children.						
P103	Read label before use.						

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P264	Wash hands thoroughly after handling.
P280	Wear eye protection/face protection.
P332+P313	If skin irritation occurs: Get medical advice.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards

SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes.

INHALATION: No data available.

CONTACT WITH SKIN: Exposure may cause mild skin irritation.

EYE CONTACT: Contact Causes Eye Damage.

INGESTION: Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Description of the mixture:

Aqueous solution of lactic acid, citric acid, ascorbic acid, and gluconic acid.

3.1.2 Ingredients:

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification
Water	7732-18-5		231-791-2	60-80%	Not Classified
Lactic Acid	50-21-5		200-018-0	5-10%	Category 2: Skin Irritation
					Category 1: Eye Damage
Citric Acid	77-92-9		201-069-1	5-10%	Not Classified
Ascorbic Acid	50-81-7		200-066-2	5-10%	Not Classified
D-gluconic acid	526-95-4		208-401-4	5-10%	Not Classified

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Following inhalation:

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention if allergic response exhibited.

4.1.2. Following skin contact:

Rinse the affected area with plenty of water. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before reuse.

4.1.3. Following eye contact:

If product enters the eyes, open eyes while under gentle running water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.

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4.1.4 Following ingestion:

Wash out mouth with plenty of water. Give large quantities of water. Do not induce vomiting unless instructed to do so by medical personal. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed Symptoms: Irritation to eyes and skin.

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products: Oxides of carbon, oxides of nitrogen.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

<u>Protective equipment:</u> Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

6.1.2 For emergency responders:

Personal protective equipment: For complete personal protection, see section 8.

6.2 Environmental precautions

If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant authorities if the product has caused environmental pollution. Removal by mechanical means (i.e. vacuuming with HEPA filters) preferred. Solids may be placed into appropriate containers for disposal.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Sweep or vacuum (equipped with a HEPA filter) the liquid and dispose in accordance with local waste disposal regulations. Removal by mechanical means (i.e. vacuuming with HEPA filters) preferred. Solids may be placed into appropriate containers for disposal. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH**.

6.4 **Reference to other sections:** See "Section 8" for a complete list of protective equipment.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

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7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

Recommendations: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Ocupational exposure limits:

No national limit values established for monoammonium phosphate or potassium nitrate.

Limit value type (country of origin)	Substance name	EC-No.	CAS-No.	Occupational exposure limit value		Monitoring and observation processes	Peak limitation	Source
				Long term	Short term			

8.1.2 Exposure limits at intended use: None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

Suitable eye protection: Safety goggles or safety glasses.

Other eye protection measures: Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

<u>Body protection</u>: Use body protection appropriate for the task. Do not wear sandals, shorts, or cut of t-shirts. <u>Other skin protection measures</u>: If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid

Colour: Light Yellow

Odour: Chemical

	value	temperature	pressure
pH	5.4	Ambie	nt
Melting point/freezing point	0.0 °C	Ambie	nt
Initial boiling point/boiling range	100 °C	Ambie	nt
Flash point		Not Available	
Evaporation rate		Not Applicable	
Flammability (solid, gas)		Not Available	
Upper/lower flammability or explosive limits		Not Available	
Upper explosive limits	Not Available		
Lower explosive limits	Not Available		
Vapour pressure	Not Applicable		
Vapour density	Not Applicable		
Relative density	1.04 g/ml Ambient		
Solubility(ies)		Complete in water	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		Not Applicable	
Viscosity, dynamic	Not Applicable		
Viscosity, cinematic	Not Applicable		
Explosive properties	Not considered explosive		
Oxidising properties		Not considered an oxid	izer

Section 10: STABILITY AND REACTIVITY

- 10.1 Reactivity
- Not reactive.
- 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions.
 10.2 Describility of heavendous reactions.
- **10.3 Possibility of hazardous reactions** None are known.
- 10.4 Conditions to avoid:
- Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight.
- **10.5** Incompatible materials: None are known.
- **10.6 Hazardous decomposition products:** No known hazardous decomposition products.

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Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Practical experience / human evidence: May cause mild skin irritation.

Assessment / Classification: Category 3 – Skin Irritant.

Eye damage/irritation

Practical experience / human evidence: May cause eye irritation.

Assessment / Classification: Category 1 – Eye Damage

Sensitization to the respiratory tract/skin

Based on available data, the classification criteria are not met.

Sensitization to the respiratory tract

Based on available data, the classification criteria are not met.

Skin sensitization

Based on available data, the classification criteria are not met.

CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction)

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Overall assessment on CMR properties:

Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CaIEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies.

Specific target organ toxicity (single exposure)

STOT SE 1 and 2

Based on available data, the classification criteria are not met.

STOT SE 3

Irritation to respiratory tract:

Based on available data, the classification criteria are not met.

Narcotic effects

Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)

STOT RE 1 and 2

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

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Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

- 12.1.1 Aquatic toxicity
- 12.2 Persistence and degradability Biodegradation: Assessment / Classification: Readily biodegradable (according to OECD Guideline 302B).
 12.3 Bioaccumulative potential

Assessment / Classification: The product completely dissociates in water. Based on physiochemical properties (high water solubility), the product has a low potential for bioaccumulation.

- 12.4 Mobility in soil Assessment / Classification: The product has a low potential for adsorption. Portion not taken up by the plants, can leach into ground water.
- **12.5 Results of PBT and vPvB assessment** This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

13.1.1 Product / Packaging disposal:

Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

13.2 Additional information:

Irrigation return flows are not considered hazardous waste.

The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. The product does not have an EPA Hazardous Waste Number.

Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN No.		Noi	n dangerous good	
14.2 UN Proper shipping name			Not applicable	
14.3 Transport hazard class(es)	Not applicable			
Hazard label(s)			Not applicable	
14.4 Packing group			Not applicable	
14.5 Envirommental hazards			Not applicable	

14.6 Special precautions for user: None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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14.8	Additional	information
	14.8.1	All transport carriers
	14.8.2	Land transport (ADR/RID)
		Limited quantity: Not applicable
		Special provisions: None
		Tunnel restriction code: Not applicable
		Classification code: Not applicable
		Transport category: Not applicable
		Hazard identification number (Kemler No.): Not applicable
		Remark: Non dangerous good
	14.8.3	Inland waterway transport (ADN)
		Limited quantity: Not applicable
		Special provisions: None
		Category: Not applicable
		Remark: Non dangerous good
	14.8.4	Sea transport (IMDG)
		Limited quantity: Not applicable
		Special provisions: None
		Marine pollutant: No
		Segregation group: Not applicable
		Remark: Non dangerous good
	14.8.5	Air transport (ICAO-TI / IATA-DGR)
		Limited quantity: Not applicable
		Special provisions: None
		Remark: Non dangerous good

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the mixture

15.1.1 US Federal

SARA Title III Rules Section 313 Toxic Chemicals This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372. Section 311/312 Hazard Classes Acute Health Hazard: None Chronic Health Hazard: None Fire Hazard: None Release of Pressure: None Reactive Hazard: None

15.1.2 US State Regulations California Proposition 65

This product does not contain any Proposition 65 chemicals

15.1.3 Canada

WHIMIS Classification

Not classified This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.1.4 European Union

Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP] Not classified as hazardous.

15.2 Chemical Safety Assessment:

For this substance a chemical safety assessment is not required.

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Section 16: OTHER INFORMATION

16.1 Indication of changes

Version No.: 1.0 - 31/08/2017

16.2 Disclaimer:

The information provided on this SDS is believed to be accurate to the best of our knowledge, but is not warranted to be so. The information provided is intended to present guidance for safe handling, use, processing, storage, transport, disposal, and discharge; it is not intended to be a guarantee or quality specification. Green Planet LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if safety procedure are not adhered to as stipulated in the SDS. Furthermore, Green Planet LLC assumes no responsibility for injury caused by abnormal use of the product even if reasonable safety procedures are followed. It is the responsibility of the recipient of this SDS to ensure that information given here is read and understood by all who use, handle, dispose of, or in any way come in contact with the product.

VitaThrive

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Section 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY

- 1.1 Product identifier: VitaThrive
- 1.1.1 Mixture
- 1.1.2 Other means of identification: Green Planet VitaThrive
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- **1.2.1** Relevant identified uses: Multivitamin additive additive desinged to be used as a conditioner for: soil, soilless, coco coir, hydroponic or any other growing media application.
- 1.2.2 Uses advised against: Mixing the product in concentrate with other fertilizer products. Reasons: formation of precipitate, sediment, or insoluble components.
 1.3 Details of the supplier of the safety data sheet: Supplier: WHOLESALE HORTICULTURAL GROUP Pty Ltd 3 Legacy Rd EPPING VIC 3076

Australia Tel: +61 3 9335 3310 Fax: +61 3 9335 3309 E-Mail : info@whg.net.au

1.4 EMERGENCY TELEPHONE NUMBER: +61 418 388 755

Section 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification Skin Irrit. 3 – H316 Eye Irrit. 2B –H320

2.2 Label elements

Hazard pictograms:	
N/A	
Signal word:	
Warning	
Hazard statements:	
H316	Causes mild skin irritation.
H320	Causes eye irritation.
Precautionary state	ments:
P101	If medical advice is needed, have product container or label on hand.
P102	Keep out of reach of children.
P103	Read label before use.
P264	Wash hands thoroughly after handling.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice.

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2.3 Other hazards

REACTIVITY: Not reactive.

SYMTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin and eyes.

ACUTE:

INHALATION: No data available.

CONTACT WITH SKIN: Exposure may cause mild skin irritation.

EYE CONTACT: Contact can cause eye irritation.

INGESTION: Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

3.1.1 Description of the mixture:

Aqueous solution of ascorbic acid, thiamine, riboflavin, pyridoxine hydrochloride, cyanocobalamin.

3.1.2 Inaredients:

Substance name	CAS No.	INDEX No.	EC No.	Concentration	Classification
Water	7732-18-5		231-791-2	50-80%	Not Classified
Ascorbic acid	50-81-7		200-066-2	5-10%	Not Classified
Thiamine	59-43-8		200-425-3	5-10%	Not Classified
Riboflavin	83-88-5		201-507-1	5-10%	Not Classified
Pyridoxine hydrochloride	58-56-0		200-386-2	5-10%	Not Classified
Cyanocobalamin	68-19-9		200-680-0	1-5%	Not Classified

3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class acute toxicity according to CLP regulation.

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Following inhalation:

If breathing becomes difficult, move the person to fresh air. If not breathing, or breathing becomes irregular, provide artificial respiration or oxygen by trained personal. Seek medical attention.

4.1.2. Following skin contact:

Rinse the affected area with plenty of water. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before reuse.

4.1.3. Following eye contact:

If product enters the eyes, open eyes while under gentle running water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention.

4.1.4 Following ingestion:

Wash out mouth with plenty of water. Do not induce vomiting unless instructed to do so by medical personal. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: Irritant. May cause skin and eye irritation. Effects of exposure to substance may be delayed.

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4.2.1 Inhalation:

May cause respiratory irritation if inhaled. Symptoms may be delayed.

4.2.2. Skin contact:

Contact may cause irritation.

4.2.3. Eye contact:

Contact may cause irritation.

4.2.4 Ingestion:

Ingestion of large quantities may cause abdominal cramps, nausea, vomiting, diarrhea.

Section 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media: Fire can be extinguished with water, carbon dioxide, powder or foam. Use extinguishing media appropriate for the surrounding fire.

Unsuitable extinguishing media: None are known.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products: None are known.

5.3 Advice for fire-fighters:

Wear appropriate protective equipment and a Self-Containing Breathing Apparatus (SCBA). Isolate the materials not yet involved in the fire and protect personal. Move the containers from the fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

<u>Protective equipment:</u> Wear safety glasses, use an appropriate respirator when ventilation is inadequate, wear chemical resistant gloves before handling the product.

Emergency procedures: Do not touch or walk through spilled material without suitable training.

6.1.2 For emergency responders:

Personal protective equipment: For complete personal protection, see section 8.

6.2 Environmental precautions

If possible, prevent entry into sewers, storm drains, surface waters, and soils. If contamination occurs, inform the relevant authorities if the product has caused environmental pollution.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment:

Stop leaks if possible without risk. Move containers away from spill area. Cover drains, storm, and sewer entrances.

6.3.2 For cleaning up:

Spilled liquid should be removed immediately as to avoid formation of dust from dried preparation. Rinse the area with water and mop up the remainder of the residue. **DO NOT USE BLEACH.**

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

7.1.1 Protective measures:

To prevent skin and eye contact, wear appropriate protective clothing and safety eye ware. Avoid spills and keep away from drains. Keep the container tightly closed when not in use.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when handling the material. Wash hands and face after handling the material. Remove contaminated clothing and personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep the container tightly closed, in a well ventilated area, away from direct sources of heat or ignition. Do not store in direct sunlight. Keep between 0-35 °C (32-95 °F). Do not store unlabelled containers. Do not store opened containers on its side.

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Requirements for storage rooms and vessels:

Ambient temperature, humidity and pressure.

7.3 Specific end uses:

Recommendations: liquid fertilizer for hydroponic, soilless, soil and coco coir media.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Ocupational exposure limits:

Limit value type (country of	Substance name	Occupational limit value	exposure	EC-No.	CAS-No.	Monitoring and observation processes	Peak limitation	Source
origin)		Long term	Short term					

8.1.2 Exposure limits at intended use:

n/a

None available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Sufficient ventilation should always be provided to control worker exposure to airborne contaminants. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure controls.

8.2.2 Personal protective equipment:

8.2.2.1 Eye / Face protection:

Suitable eye protection: Face shield. Chemical safety goggles.

Other eye protection measures: Face shield if sufficient risk of splashing is present. Refer to U.S. OSHA 29 CFR 1910.133 or the European Standard EN166.

8.2.2.2 Skin protection:

Hand protection: Chemical resistant neoprene or polyvinyl alcohol gloves.

Body protection: Use body protection appropriate for the task. Chemical resistant suit and boots. Do not wear sandals, shorts, or cut of t-shirts.

Other skin protection measures: If deemed necessary, refer to U.S. OSHA 29 CFR 1910.136/138, or the European Standard DIN EN 374

8.2.2.3 Respiratory protection:

Not required in properly ventilated areas.

8.2.2.4 Thermal hazards

None applicable.

8.2.3 Environmental exposure controls:

Refer to "Section 6" for environmental containment and clean up.

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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state: Liquid

Colour: Yellow/Orange

Odour: Vitamin

	value	temperature	pressure
рН	5.5	Ambien	t
Melting point/freezing point	0°C	Ambien	t
Initial boiling point/boiling range	100°C	Ambien	t
Flash point		Not Available	
Evaporation rate		Not Applicable	
Flammability (solid, gas)		Not Available	
Upper/lower flammability or explosive limits		Not Available	
Upper explosive limits		Not Available	
Lower explosive limits		Not Available	
Vapour pressure		Not Available	
Vapour density	Not Applicable		
Relative density	1.0 g/ml	Ambien	t
Solubility(ies)		Complete in water	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature	Not available		
Decomposition temperature		Not available	
Viscosity		Not Applicable	
Viscosity, dynamic		Not Applicable	
Viscosity, cinematic	Not Applicable		
Explosive properties		Not considered explosiv	/e
Oxidising properties		Not considered an oxidiz	zer

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity No data available. 10.2 Chemical stability No hazardous reactions when handled and stored according to provisions. Possibility of hazardous reactions 10.3 None are known. 10.4 Conditions to avoid: Freezing. Evaporation until dryness. High temperatures. Exposure to sunlight. 10.5 Incompatible materials: None are known. 10.6 Hazardous decomposition products: No known hazardous decomposition products.

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Mixture

Acute toxicity

Based on available data, the classification criteria are not met. Skin corrosion/irritation Practical experience / human evidence: May cause mild skin irritation. Assessment / Classification: Category 3 Skin Irritant

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Eye damage/irritation Practical experience / human evidence: May cause eye irritation. Assessment / Classification: Category 2B Eye Irritant Sensitization to the respiratory tract/skin Based on available data, the classification criteria are not met. Sensitization to the respiratory tract Based on available data, the classification criteria are not met. Skin sensitization Based on available data, the classification criteria are not met. CMR effects (carcinogenetic, mutagenicity and toxicity for reproduction) Germ cell mutagenicity Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. **Reproductive toxicity** Based on available data, the classification criteria are not met. **Overall assessment on CMR properties:** Ingredients within this product are not found on the following lists: OSHA Subpart Z, EPA IRIS, IARC, NTP, CalEPA; and therefore are not considered to be, nor suspected to be, cancer causing by these agencies. Specific target organ toxicity (single exposure) STOT SE 1 and 2 Based on available data, the classification criteria are not met. STOT SE 3 Irritation to respiratory tract: May cause respiratory irritation - inhalation Narcotic effects Based on available data, the classification criteria are not met. Specific target organ toxicity (repeated exposure) STOT RE 1 and 2 Based on available data, the classification criteria are not met. Aspiration hazard

Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

12.1.1 Aquatic toxicity

Acute (short-term) fish toxicity

	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
L-Ascorbic Acid	200 mg/100 g food	96 h	Oreochromis niloticus	NOEC	unmeasured	160149 Ozkan,F., S.G. Gunduz, M. Berkoz, A.O. Hunt, and S. Yalin, 2011
(-)-Riboflavin	64.3 mg/L	96 h	Pimephales promelas	Mortality – NEF	unmeasured	12859 Geiger,D.L., D.J. Call, and L.T. Brooke, 1988
5-Hydroxy-6-methyl- 3,4- pyridinedimethanol, Hydrochloride	10 mg/L	24 h	Ptychocheilus oregonensis	Mortality – NR	unmeasured	15148 MacPhee,C., and R. Ruelle, 1969

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12.4

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					Ourocy	
Cyanocobalamin	35 uCi	96 h	Chasmichthys gulosus	ACC – BCF 3	unmeasured	10670 Ueda,T., and M. Nakahara, 1983
Chronic (long-term)	fish toxicity					
	Effect dose/ Concentration	Test duration	Species	Result/ Evaluation	Method	Remark
L-Ascorbic Acid	24 ppm	17 Weeks(s)	Salmo salar	No Effect	unmeasured	20405 Halver,J.E., and R.W. Hardy, 1994
Acute (short-term) t	oxicity to crust	tacean				
	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
L-Ascorbic Acid	100 umol/L	4 h	Mytilus edulis	INC – Growth (119%)	unmeasured	94730 Etoh,H., S. Hageshita, and K. Ina, 1997
Chronic (long-term)	toxicity to crus	stacean				
	Effect dose/ Concentration	Test Duration	Species	Result/ Evaluation	Method	Remark
L-Ascorbic Acid	0-50 mg/L	48 h	Dreissena polymorpha	Ability to detach from substrate	unmeasured	18157 Cope,W.G., M.R. Bartsch, and L.L. Marking, 1997
Persistence and deg Biodegradation: Assessment / Class Readily biodegradable (acc Bioaccumulative po Assessment / Class The product completely dis potential for bioaccumulation	ification: cording to OECD Gi tential ification: ssociates in water. E		chemical propertie	es (high water s	solubility), the pr	oduct has a low
Mobility in soil Assessment / Class	ification:					
The product has a low pote Results of PBT and This substance does not m	vPvB assessm	ent		s, can leach in	to ground water.	
ection 13: DISPO	SAL CONSI	DERATIO	DNS			
Waste treatment me						

13.1.1 Product / Packaging disposal:

Disposal should be in accordance with applicable federal and state laws.

13.1.2 Other disposal recommendations:

Agricultural producers disposing of waste from their own use are exempt from hazardous waste requirements as long as (1) they triple rinse the emptied containers in accordance with the labeling to facilitate removal of the chemical from the container, and (2) they dispose of the residue on their own agricultural establishment in a manner consistent with the disposal instructions in accordance with the federal and state laws.

13.2 Additional information:

Irrigation return flows are not considered hazardous waste.

The product is not listed as dangerous waste in the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. The product does not have an EPA Hazardous Waste Number.

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Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterway transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)	
14.1 UN No.	Non dangerous good				
14.2 UN Proper shipping name			Not applicable		
14.3 Transport hazard class(es)	Not applicable				
Hazard label(s)	Not applicable				
14.4 Packing group	Not applicable				
14.5 Envirommental hazards			Not applicable		

14.6 Special precautions for user: None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

14.8 Additional information

14.8.1 All transport carrie	ers
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14.8.2	Land transport (ADR/RID)
	Limited quantity: Not applicable
	Special provisions: None
	Tunnel restriction code: Not applicable
	Classification code: Not applicable
	Transport category: Not applicable
	Hazard identification number (Kemler No.): Not applicable
	Remark: Non dangerous good
14.8.3	Inland waterway transport (ADN)
	Limited quantity: Not applicable
	Special provisions: None
	Category: Not applicable
	Remark: Non dangerous good
14.8.4	Sea transport (IMDG)
	Limited quantity: Not applicable
	Special provisions: None
	Marine pollutant: No
	Segregation group: Not applicable
	Remark: Non dangerous good
14.8.5	Air transport (ICAO-TI / IATA-DGR)
	Limited quantity: Not applicable
	Special provisions: None
	Remark: Non dangerous good
	Kennark: Non dangerous good

Section 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the mixture

15.1.1 US Federal

SARA Title III Rules

Section 313 Toxic Chemicals This product does not contain any chemicals which are subject to reporting requirements of the Act and 40 CFR Part 372. Section 311/312 Hazard Classes Acute Health Hazard: None Chronic Health Hazard: None Fire Hazard: None Release of Pressure: None Reactive Hazard: None

15.1.2 US State Regulations California Proposition 65

This product does not contain any Proposition 65 chemicals

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15.1.3 Canada WHIMIS Classification

Not classified

This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

15.1.4 European Union Classification according to the Regulation (EC) No 1272/2008 [EU-GHS/CLP] No additional information available.

15.2 Chemical Safety Assessment: No additional information available.

Section 16: OTHER INFORMATION

16.1 Indication of changes

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16.2 Disclaimer:

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