

**1. Identification**

**Product Name :** Enhance NZ Foliar Fertilizer

**Synonyms :** None

**Product Use :** Ready to use fertilizer

**Manufacturer/Supplier :** Ag Concepts Corp

**Address :** 439 E Shore Dr. Eagle, ID 83616

**General Information :** 208-388-1131

**Transportation Emergency Number** United States: 888-388-1131

**New Zealand Distributor**

**Distributor** GROlogic Ltd

**Address :** 116 Margaret Ave, Havelock North, Hawkes Bay, New Zealand

**General Information :** 0800 11 44 22

**Transportation Emergency Number** 0800 11 44 22

**2. Hazard Identification**

**Hazard Pictogram :**



**Signal Word :** Warning

**Oral :** H302 - Harmful if swallowed

**Skin Irritation :** H315 - Causes skin irritation

**Eye Irritation :** H319 - Causes serious eye irritation

**STOT SE 3 H335** - May cause respiratory irritation

**Hazard Categories :** Skin Corrosion/Irritation - 2

Serious Eye Damage/Eye Irritation - 2B

STOT SE 3 - Specific target organ toxicity (single exposure) Category 3

**Precautionary Statements :** P261 - Avoid breathing

dust/fume/gas/mist/vapours/spray.

**P264** - Wash skin thoroughly after handling

**P270** - Do not eat, drink, or smoke when using this product

**P271** - Use only outdoors or in a well-ventilated area.

**P280** - Wear protective gloves/protective clothing/eye protection/face protection.

**P301+312** - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

- P302+352** - IF ON SKIN: Wash with plenty of soap and water.
- P304+340** - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+351+P338** - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312** - Call a POISON CENTER or doctor/physician if you feel unwell.
- P321** - Specific treatment (see ... on this label).
- P330** - Rinse mouth
- P332+P313** - IF SKIN irritation occurs: Get medical advice/attention
- P337+P313** - IF eye irritation persists: Get medical advice/attention
- P362** - Take off contaminated clothing and wash before reuse.
- P403+P233** - Store in a well-ventilated place. Keep container tightly closed.
- P405** - Store locked up.
- P501** - Dispose of contents/container to ...

### 3. Composition/Information on Ingredients

Substance/mixture : Mixture		
Component	CAS Number	Weight %
Ammonium Polyphosphate :	6833-79-9	
Phosphoric acid :	7664-38-2	
Potassium hydroxide :	1310-58-3	
Urea :	57-13-6	
Ammonia < 10% :	1336-21-6	
Mono Ammonium Phosphate :	7722-76-1	
Mono Potassium Phosphate :	7778-77-0	
Potassium Tri Poly Phosphate :	13845-36-8	
Tetra Potassium Pyro Phosphate :	7320-34-5	
Ferric HEDTA :	17084-02-5	
Manganese EDTA Diammonium Salt :	15375-84-5	
Copper diammonium EDTA :	67989-88-2	
Diammonium Zinc EDTA :	67859-51-2	
Humic acids, potassium salts:	68514-28-3	

## 4. First Aid Measure

**Eye** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing the eye. Call poison control center or doctor if you feel unwell. If eye irritation persists: Get medical advice/attention.

**Skin** : Wash skin thoroughly after handling. If on skin: wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation occurs: get medical

**Ingestion** : Rinse mouth. Do NOT induce vomiting. If swallowed: Call poison control center or doctor for further treatment advice if you feel unwell.

**Inhalation** : Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call poison control center or doctor for further treatment advice if you feel unwell

**Indication of Immediate Medical Attention and Special Treatment Needed**  
Treat symptomatically

### Potential acute health effects

**Eye contact** : Causes serious eye irritation

**Inhalation** : May cause respiratory irritation

**Skin Contact** : Causes skin irritation

**Ingestion** : May be harmful if swallowed

## 5. Fire Fighting Measures

**Extinguishing Media** : Non-combustible liquid. Use extinguishing media suitable for underlying cause of fire.

**Unsuitable** : Do not use a heavy water stream

### Extinguishing Media

**Specific Hazards Arising from the Chemical** : May produce carbon monoxide, carbon dioxide, low molecular weight hydrocarbons and/or toxic fumes under fire conditions

**Special Fire Fight Proc** : Evacuate nonessential personnel. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Wear self-contained breathing apparatus and full protective clothing. Use water spray to cool containers exposed to fire. Prevent fire-fighting water from entering environment

## 6. Accidental Release Measures

**Personal Precautions** : Evacuate unnecessary personnel

**Protective Equipment** : Equip cleanup crew with proper protection. Ventilate area.

**Emergency Procedures** : Contain spill. Do not allow spilled product to contaminate water supplies, lakes, streams, ponds, or drains.

**Methods and Materials for Containment and Cleanup** : Collect spilled liquid and reuse, if uncontaminated. If contaminated, cover with inert absorbent material, collect and place in suitable containers for proper disposal.

## 7. Handling and Storage

**Precautions for Safe Handling** : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Keep containers closed when not in use. Do not eat, drink, or smoke when using this product. Provide good ventilation in process area to prevent formation of vapor.

**Conditions for Safe Storage** : Keep out of reach of children. This product may freeze at temperatures less than 32 degrees F. Thawing occurs readily at temperatures greater than 32 degrees F. Do not store at temperatures greater than 110 Degrees F. Do not store in direct sunlight. Store in a well-ventilated palce. Keep container tightly closed

## 8. Exposure Controls/Personal Protection

**TLV/PEL** : Not established for mixture

**Ingredient - Phosphoric acid (7664-38-2) :**

USA ACGIH	ACGIH TWA (mg/m3)	1 mg/m3
USA ACGIH	ACGIH STEL (mg/m3)	3 mg/m3

**Ingredient - Potassium hydroxide (1310-58-3) :**

USA ACGIH	ACGIH Ceiling (mg/m3)	2 mg/m3
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**Ingredient - ammonia conc <10% (1336-21-6) :**

USA ACGIH	ACGIH TWA (mg/m3)	1 mg/m3
USA ACGIH	ACGIH STEL (mg/m3)	3 mg/m3

**Appropriate Engineering Controls** : Local exhaust is sufficient

**Controls** :

**Personal Protective Equipment** : Avoid all unnecessary exposure.

**Equipment** :

**Hand Protection** : Wear protective gloves

**Eye protection** : Chemical goggles or safety glasses

**Skin and body protection** : Wear suitable protective clothing

**Respiratory Protection :** Wear appropriate mask

**Other Information :** Do not eat, drink or smoke during use.

## 9. Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** Dark brown

**Flash Point, °F:** Not flammable

**Boiling Point, °F:** Not available

**Melting Point (Freezing Point), °F :** Not available

**Vapor Pressure, mm Hg @ 20 °C :** Not established

**Vapor Density :** Not established

**Solubility in Water :** Complete

**Molecular Formula :** Not applicable, formulated mixture

**Density, g/mL @ 25 °C :** 1.350 to 1.400

**pH :** 6 to 7

**Flammable Limits :** No information found

**Auto-Ignition Temperature :** Not applicable

**Decomposition Temperature :** Not established

## 10. Stability and Reactivity

**Reactivity :** Normally Stable

**Chemical Stability :** Stable

**Hazardous Decomposition Products :** May emit ammonia, POX and NOX and oxides of carbon under fire conditions

**Hazardous Polymerization :** Will not occur

**Conditions to Avoid :** Avoid direct sunlight and temperatures below 32°F and above 110°F.

**Incompatible Materials :** Zinc clad and copper bearing alloys. Strong acids. Strong bases.

## 11. Toxicology Information

**Acute Toxicity :** Not classified for mixture

**Ingredient - Ammonium Polyphosphate (11-37-0) :**

**LD50/oral/rat:** > 2,000 mg/kg

**LD50/dermal/rat:** > 5,000 mg/kg

**Ingredient - Ammonium Polyphosphate (68333-79-9) :**

**LD50/oral/rat:** 5,656 mg/kg

**LD50/dermal/rabbit:** > 3,160 mg/kg

**ATE US (oral)** 5,625.00000000 mg/kg body weight

**Ingredient - 3-18-18 Fertilizer :**

**LD50/oral/rat:** 500.00000000 mg/kg body weight

**Ingredient - phosphoric acid (7664-38-2) :**

LD50/oral/rat: 4,400 mg/kg

ATE US (oral) 4,400.00000000 mg/kg body weight

**Ingredient - potassium hydroxide (1310-58-3) :**

LD50/oral/rat: 333 mg/kg

ATE US (oral) 333.00000000 mg/kg body weight

**Ingredient - urea (57-13-6) :**

LD50/oral/rat: 8,471 mg/kg

LD50/dermal/rat: &gt; 3,200 mg/kg

LD50/dermal/rabbit: &gt; 21,000 mg/kg

ATE US (oral) 333.00000000 mg/kg body weight

**Ingredient - monoammonium phosphate(7722-76-1) :**

LD50/oral/rat: &gt;1,000 mg/kg

**Ingredient - monopotassium phosphate(7778-77-0) :**

LD50/oral/rat: &gt;2,000 mg/kg

LD50/dermal/rabbit: &gt;4,640 mg/kg

**Ingredient - Potassium tri poly phosphate(13845-36-8) :**

Eye irritation - rabbit: mildly irritating (unwashed eyes)

**Ingredient - Tetra Potassium pyro phosphate(7320-34-5) :**

LD50/oral/rat: &gt;2,980 mg/kg

LD50/dermal/rabbit: &gt;7,940 mg/kg

Eye irritation - rabbit: 43.6/110.0; moderately irritating

Skin irritation - rabbit: 1/8; (24h) slightly irritating

**Ingredient - Ferric HEDTA (17084-02-5) :**

LD50/oral/rat: &gt;2,000 mg/kg (96h)

LD50/oral/rabbit: 8000 mg/kg estimated

LD50/oral/mouse: 12400 mg/kg estimated

**Skin Corrosion/irritation** Causes skin irritation (pH 6 to 7)**Serious eye** : Causes eye irritation (ph 6 to 7)**damage/irritation****Germ cell mutagenicity** : Not classified**Carcinogenicity** : Not classified**Reproductive toxicity** : Not classified**Specific target organ** : May cause respiratory irritation**toxicity (single exposure)****Specific target organ** : Not classified**toxicity****(repeat exposure)****Teratogenicity** : Not classified**Aspiration Hazard** : Not classified**Other Hazards** : None currently known

## 12. Ecological Information

### Ingredient - Ammonium Polyphosphate (11-37-0) :

LC50 Fish 1 > 101 mg/l

Persistence and degradability : Not established

Bioaccumulative potential : Not established

### Ingredient - phosphoric acid (7664-38-2) :

LC50 Fish 1 138 mg/l (96h; Pisces; Pure substance)

LC50 other aquatic organisms 1 240 mg/l (96h; Protozoa; Pure substance)

LC50 Fish 2 100 - 1,000 mg/l (Pisces; Pure substance)

LC50 other aquatic organisms 2 100 - 1,000 mg/l (Pure substance)

TLM Fish 1 138 mg/l (24h; Gambusia affinis; Pure substance)

Threshold limit other aquatic organisms 1 : 240 mg/l (96h; Protozoa; Pure substance)

Threshold limit other aquatic organisms 2 : 100 - 1,000 mg/l (Pure substance)

Log Pow -0.77 (Estimated value)

Bioaccumulative potential : Not established

### Ingredient - potassium hydroxide (1310-58-3) :

LC50 Fish 1 28.6 mg/l (96h; Pisces; Pure substance)

LC50 other aquatic organisms 1 100 - 1,000 mg/l (96 h)

LC50 Fish 2 80 mg/l (96h; Gambusia affinis; Pure substance)

Threshold limit other aquatic organisms 1 : 100 - 1,000 mg/l (96 h)

Bioaccumulative potential : Not established

### Ingredient - urea (57-13-6) :

LC50 Fish 1 > 6,810 mg/l (96h; Leuciscus idus)

EC50 Daphnia 1 > 10,000 mg/l (48h; Daphnia magna)

LC50 Fish 2 17,500 mg/l (96h; Poecilia reticulata)

EC50 Daphnia 2 > 10,000 mg/l (24h; Daphnia magna)

TLM fish 1 17,500 ppm (96h; Poecilia reticulata)

Threshold limit other aquatic organisms 1 : 120,000 mg/l (16h; bacteria; toxicity test)

Threshold limit other aquatic organisms 2 : > 10,000 mg/l (Pseudomonas putida)

Threshold limit algae: > 10,000 mg/l (168 h; Scenedesmus quadricauda)

Persistence and degradability : Inherently biodegradable. Hydrolysis in water not established

ThOD : 0.27 g O<sub>2</sub>/g substance

BCF fish 1 1 (72h; Brachydanio rerio; Fresh water)

BCF other aquatic organisms 1 11,700 (Chlorella sp.)

Log Pow -2.59 - -1.59

Bioaccumulative potential : Not established

**Ingredient - Ammonia conc < 10% (1336-21-6) :**

**Persistence and degradability :** Readily biodegradable in water. Ozonation in water. Biodegradable in soil. No (test) data on mobility of the components available. Ozonation in the air not established.

**Log Pow :** -1.14  
**HSNO Approval Number :** HSR002571  
**Bioaccumulative potential :** Not established  
**HSNO Group Standard :** Fertilisers (Subsidiary Hazard) Group Standard 2017

**Ingredient - Tetra Potassium pyro phosphate(7320-34-5) :**

**EC50 Daphnia 1** > 100 mg/l (48h; Daphnia magna)  
**LC50 Fish 1** > 100 mg/l (96h; Rainbow trout)  
**LC50 Fish 2** > 100 mg/l (96h; Mysid shrimp)

**Ingredient - Diammonium Zinc EDTA(67859-51-2) :**

**LC50 Fish 1** 62,300 mg/l (96h; estimated)

**Ingredient - Tetraammonium EDTA(22473-78-5) :**

**LC50 Fish 1** 623 - 795 mg/l (96h; Bluegill)

**13. Disposal Considerations**

**Waste Disposal Method :** Dispose in a safe manner in accordance with local/national regulations.

**Ecology - waste materials :** Avoid release to the environment

**14. Transportation Information**

**UN Proper Shipping Name :** Not regulated by DOT, IATA or IMDG

**Transport Hazard Class :** None

**UN Identification Number :** None

**Packaging Group :** None

**Environmental Hazards :** No information found.

**Transport in Bulk :** No information found.

**Special Precautions for Transportation** No information found.

**Freight Classification :** Class 60

**15. Regulatory Information**

**HSNO Approval Number :** HSR002571

**HSNO Group Standard :** Fertilisers (Subsidiary Hazard) Group Standard 2017



**16. Other Information**

**Other Information :** None

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