

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

7. Handling and Storage

Precautions for Safe Wash hands and other exposed areas with mild soap and water

Handling : 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 Keep out of reach of children. This product may freeze at

Storage : 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
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USA ACGIH	ACGIH STEL (mg/m3)	3 mg/m3
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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
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USA ACGIH	ACGIH STEL (mg/m3)	3 mg/m3
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Appropriate Engineering Local exhaust is sufficient

Controls :

Personal Protective 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

Apperance: 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

Chemial 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: > 3,200 mg/kg

LD50/dermal/rabbit: > 21,000 mg/kg

ATE US (oral) 333.00000000 mg/kg body weight

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

LD50/oral/rat: >1,000 mg/kg

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

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

LD50/dermal/rabbit: >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: >2,980 mg/kg

LD50/dermal/rabbit: >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: >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 O₂/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.

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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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