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Section 1: Identification

1.1 Product identifier:

Complete

Other means of Identification: None

1.2 Recommended use:

Identified uses:

Agricultural uses as fertilizer.

Restrictions on use:

None known. Read the label before using. Keep out of reach of children.

1.3 Supplier:

OMEX Agriculture Inc.
290 Agri Park Road
Oak Bluff, MB, Canada
R4G 0A5
Web address: www.omexcanada.com
(204) 477-4052

1.4 Emergency telephone number (24-hour):

Poison Control Center: Call 911 or the regional Poison Control Center
Canadian Association of Poison Control Centers, provincial telephone numbers at: www.capcc.ca

Section 2: Hazard Identification

2.1 Classification:

Not classified under any hazard class.

2.2 Label elements:

Not classified

2.3 Other hazards:

Caution: This fertilizer contains Manganese and Zinc and should be used only as recommended. It may prove harmful when misused.
Exposures to liquid or spray may cause eye irritation.
Exposures to vapours or spray may cause irritation to the respiratory tract.

Section 3: Composition / Information on Ingredients

Chemical Name	CAS No.	Wt.%	GHS Classification
Phosphonic acid, potassium salt	13977-65-6	40 - 50	Not classified
Manganese EDTA	15375-84-5	0.1 - 2	Not classified
Zinc EDTA	14025-21-9	0.1 - 2	Not classified

Section 4: First-Aid Measures

4.1 Description of first-aid measures:

Inhalation: If irritation occurs move victim to fresh air and keep comfortable for breathing. Get immediate medical attention if you feel unwell or are concerned.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. If irritation persists, get medical attention.

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4.1 Description of first-aid measures: (continued)

Skin Contact: Rinse skin with plenty of water and mild soap. If irritation persists, get medical attention. Take off contaminated clothing and wash it before re-use.

Ingestion: If exposed or concerned, call a POISON CENTER or doctor for treatment advice. Do not induce vomiting unless directed to do so by the poison center or doctor.
Canadian Poison Control Centers telephone numbers are available at: www.capcc.ca/en/content/provincial-centres

4.2 Most important symptoms and effects, acute and delayed:

Inhalation: Breathing fertilizer spray or mist may cause nose and throat irritation.

Eye Contact: Contact with liquid or spray may cause mild eye irritation.

Skin Contact: Contact with the liquid may cause slight skin irritation.

Ingestion: Low acute toxicity by the oral route. Swallowing may cause stomach discomfort, nausea, vomiting and diarrhea. Symptoms of acute toxicity include muscle spasms, mental confusion, weakness and heaviness in the extremities, dizziness and cardiac arrhythmia.

4.3 Indication of any immediate medical attention and special treatment needed:

In case of accidental swallowing by a child: Get immediate medical attention. Take container, label or product name with you when seeking medical attention.

4.4 Medical Conditions Aggravated by Exposure:

Not available

Section 5: Fire-fighting Measures

5.1 Extinguishing media:

Use extinguishing media appropriate for the surrounding fire (water spray, appropriate foam, dry chemical or carbon dioxide).
Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the product:

Not flammable.
Combustion may generate toxic and severely irritating fumes containing severely irritating oxides of phosphorus and potassium.
If involved in a fire, closed containers may rupture violently.

5.3 Special protective equipment and precautions for fire-fighters:

Firefighters should wear full protective gear including self-contained breathing apparatus when fighting chemical fires.
Any water runoff should be minimized and contained.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear protective gloves, clothing and boots.
Stop the spill if safe to do so. Restrict access to the spill area.

6.2 Environmental precautions:

Prevent releases from going into drains, sewers and other waterways.
Fertilizer products may be harmful to livestock and wildlife if swallowed. Clean up any spilled fertilizer products immediately, particularly where bulk quantities of fertilizers are handled.

6.3 Methods and material for containment and cleaning up:

Collect the spilled liquid by pumping or using a suitable inert absorbent (e.g. sand, earth or other commercial absorbent product). Collect spilled material and contaminated absorbents and place in an appropriate container for reclamation or disposal. Clean the spill area with water.

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Section 7: Handling and Storage

7.1 Precautions for safe handling:

Read the label before using.
Keep out of reach of children.
Avoid contact with skin and eyes. Wear eye protection and gloves.
Remove contaminated clothing and wash it before reuse.
Wash hands and exposed skin after handling.
Do not eat, drink or smoke when using this product.
Do not breathe gas, mist, vapours or spray.

7.2 Conditions for safe storage:

Store in the original container and provide adequate protection from weather.
Protect from freezing.
Keep storage containers closed when not in use and when empty.
Keep away from incompatible materials (see Section 10).
Do not contaminate water, food or feed by storage or disposal.
Empty containers may retain harmful product residues; do not re-use containers for food or drink.

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters:

Ingredient	ACGIH® TLV®	OSHA PEL	Other Exposure Limits
Phosphonic acid, potassium salt	None established	None established	None established
Manganese, inorganic compounds as Mn	0.02 (respirable) mg/m^3 0.1 (inhalable) mg/m^3	5 mg/m^3 Ceiling	NIOSH REL: 1 mg/m^3 RSST, VEMP (Quebec, Canada): 0.2 mg/m^3
Zinc EDTA	None established	None established	None known

8.2 Exposure controls:

Engineering controls: Mechanical ventilation or personnel enclosures may be required to control hazardous conditions when this material is heated or a spray/mist is created.

8.3 Individual protection measures:

Eye/Face protection: Wear safety glasses or goggles.

Skin protection: Wear chemical resistant, rubber gloves. Wear protective work clothing. Take off contaminated clothing and wash it before reuse.

Respiratory protection: In workplaces where airborne spray or mist concentrations cause respiratory tract irritation or eye irritation is experienced, use a combination of engineering controls (e.g. ventilation) and personal protection (e.g. wear an approved respirator).

Other protection: Workplaces should have a hand-wash station and eye-wash fountain readily available.

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Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Appearance:	Liquid.
Odour:	Odourless
Odour threshold:	Not available
pH:	Not available
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	Not available
Flash point:	Not available
Flammability (solid, gas):	Not flammable
Upper/lower flammability or explosive limits:	Not applicable
Evaporation rate:	Not available
Vapour pressure:	Not available
Vapour density:	Not available
Relative density:	1.63 (water=1)
Solubility (ies):	Completely soluble in water
Partition coefficient (n-octanol/water):	Not available
Auto-ignition temperature:	Not applicable
Decomposition temperature:	Not available
Viscosity:	Not available

Section 10: Stability and Reactivity

10.1 Reactivity:

Not reactive.

10.2 Chemical stability:

Stable at normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions:

None known.

10.4 Conditions to avoid:

Avoid exposure to high temperatures. Protect from freezing.

10.5 Incompatible materials:

Incompatible with strong oxidizing agents including hypochlorite bleach.

Use caution when mixing this product with other agricultural chemicals. Some chemicals may be incompatible. Contact OMEX Agriculture Inc. for further information

10.6 Hazardous decomposition products:

None known

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Section 11: Toxicological Information

11.1 Information on toxicological effects:

Likely routes of exposure

Inhalation; Ingestion; Skin contact; Eye contact.

Acute toxicity

Inhalation: Low acute toxicity by the inhalation route.

Ingestion: Acute toxicity estimate for the mixture is greater than 2 000 mg/kg in rat.
Symptoms of acute potassium toxicity in humans include mental confusion, weakness and heaviness in the extremities, hypotension, cardiac arrhythmia and electrocardiographic abnormalities. Acute phosphate toxicity can provoke hypocalcaemia and associated symptoms including tetany, hypotension and tachycardia.

Skin: Low acute toxicity by the dermal route.

11.2 Acute toxicity data:

Chemical Name	LD_{50} Oral	LD_{50} Dermal	LC_{50} Inhalation 4-hour exposure
Phosphonic acid, potassium salt	>2 000 mg/kg (rat)	>5 000 mg/kg (rabbit)	>2.07 mg/L (rat) as aerosol
Manganese EDTA	2 000 mg/kg (rat)	Not available	Not available
Zinc EDTA	2 000 mg/kg (rat)	Not available	Not available

Skin corrosion / irritation

Data not available.

Serious eye damage / irritation

Data not available for the mixture.

STOT (Specific Target Organ Toxicity) – Single exposure

Data not available.

STOT (Specific Target Organ Toxicity) – Repeated exposure

Repeated exposures to concentrated fertilizers by ingestion may cause adverse effects to the kidneys. Kidney damage was observed in dogs following administration of 800 mg/kg dipotassium phosphate in the diet for 14 to 38 weeks. Repeated exposures by ingestion of phosphates may result in deposition of calcium phosphate crystals in various tissues and cardiovascular calcification.

Aspiration hazard

Does not meet criteria for classification for aspiration toxicity.

Sensitization - respiratory and/or skin

Data not available.

Carcinogenicity

This mixture does not contain any component that is considered a human carcinogen by IARC (International Agency for Research on Cancer), ACGIH (American Conference of Governmental Industrial Hygienists, OSHA (Occupational Safety and Health Administration) or NTP (National Toxicology Program).

Reproductive toxicity

Data not available

Germ cell mutagenicity

Data not available

Interactive effects

Data not available.

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Section 12: Ecological Information

12.1 Toxicity:

Data not available.
Contains Manganese and Zinc compounds: May cause long-term adverse effects in the aquatic environment.
Product will release plant nutrients Phosphorus and Potassium in aquatic environments. Plant nutrients cause algae growth which may increase turbidity and deplete oxygen resulting in a hazard to fish and other aquatic organisms.
It is strongly advised not to release this product to aquatic environments.

12.2 Persistence and degradability:

Data not available

12.3 Bioaccumulative potential:

Not applicable

12.4 Mobility in soil:

Data not available

Section 13: Disposal Considerations

13.1 Disposal methods:

If product is contaminated, dispose of in an approved landfill disposal facility, in accordance with municipal or provincial regulations where they apply. Contact local authorities for disposal of large quantities of product.
Thoroughly rinse out empty containers.
Do not contaminate water when disposing of rinsate or equipment washwaters. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark.

Section 14: Transport Information

14.1 Canada Transportation of Dangerous Goods (TDG) Regulations:

Not regulated

Section 15: Regulatory Information

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

Canada

NSNR status: Phosphonic acid, potassium salt is listed on the Non-domestic substances List (NDSL).

NRPI: Total phosphorus. Zinc, Manganese and their compounds.

USA

TSCA status: All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA Section 313: Zinc, Manganese and compounds

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Section 16: Other Information

Revision date:

December 28, 2018

References and sources for data:

CCOHS Cheminfo
HSDB
NIOSH Pocket Guide
Manufacturer SDS

Legend to abbreviations:

ACGIH® – American Conference of Governmental Industrial Hygienists
LD_{50}- Median lethal dose; the dose causing 50 % lethality
NIOSH – National Institute for Occupational Safety and Health
OSHA - Occupational Safety and Health Administration
TLV® - Threshold Limit Value
WHMIS – Workplace Hazardous Materials Information System.

Additional information:

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