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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : PHT Che Plex Zn-Fe-Mn

Product code : M77069

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

JR Simplot Company P.O. Box 70013 Boise, ID 83707 T 1-208-336-2110

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Eye Irrit. 2A H319

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H319 - Causes serious eye irritation

Precautionary statements (GHS-US) : P264 - Wash hands thoroughly after handling

P280 - Wear eye protection, face protection

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/attention

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

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Name	Product identifier	%	Classification (GHS-US)
Diammonium Salt of Zinc Ethylene-Diaminetetraacetic	(CAS No) 67859-51-2		Not classified
Manganese diapotassium EDTA	(CAS No) 68015-77-0		Not classified
Diammonium salt of Copper Ethylenediaminetetraacetic acid	(CAS No) 67989-88-2		Not classified
Anhydrous Ammonia	(CAS No) 7664-41-7		Acute Tox. 3 (Inhalation:gas), H331 Skin Corr. 1A, H314 Aquatic Acute 1, H400
Dipotassium EDTA	(CAS No) 2001-94-7		Not classified

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical

advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed

by warm water rinse.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after eye contact : Causes serious eye irritation.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation

of vapor.

Hygiene measures : Wash ... thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container

closed when not in use.

Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

PHT Che Plex Zn-Fe-Mn	
ACGIH	Not applicable
OSHA	Not applicable

Diammonium Salt of Zinc Ethylene-Diaminetetraacetic (67859-51-2)	
ACGIH	Not applicable
OSHA	Not applicable

Manganese diapotassium EDTA (68015-77-0)	
ACGIH	Not applicable
OSHA	Not applicable

Diammonium salt of Copper Ethylenediaminetetraacetic acid (67989-88-2)	
ACGIH	Not applicable
OSHA	Not applicable

Anhydrous Ammonia (7664-	Anhydrous Ammonia (7664-41-7)		
ACGIH	ACGIH TWA (ppm)	25 ppm	
ACGIH	ACGIH STEL (ppm)	25 ppm	
OSHA	Not applicable		

Dipotassium EDTA (2001-94-7)	
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Wear appropriate mask.

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid Color : clear Maroon

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Odor : There may be no odour warning properties, odour is subjective and inadequate to warn of

overexposure.

Mixture contains one or more component(s) which have the following odour(s):

Slight ammonia odor Irritating/pungent odour

Odor threshold : No data available

pH : 7-8

Melting point : No data available Freezing point No data available Boiling point : No data available Flash point No data available Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : No data available : No data available **Explosion limits** Explosive properties : No data available : No data available Oxidizing properties Vapor pressure : No data available : No data available Relative density No data available Relative vapor density at 20 °C

Specific gravity / density : 10.62

Solubility : Water: Solubility in water of component(s) of the mixture :

· Anhydrous Ammonia:

Log Pow : No data available
Log Kow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Anhydrous Ammonia (7664-41-7)	
LD50 oral rat	350 mg/kg
ATE US (oral)	350.000 mg/kg body weight

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Anhydrous Ammonia (7664-41-7)	
ATE US (gases)	700.000 ppmV/4h
Skin corrosion/irritation	: Not classified. pH: 7 - 8
Serious eye damage/irritation	: Causes serious eye irritation. pH: 7 - 8
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

Symptoms/injuries after eye contact

12.1. Toxicity

Anhydrous Ammonia (7664-41-7)	
LC50 fish 1	0.75 - 3.4 mg/l (96 h; Pimephales promelas; Ammonium ions)
LC50 other aquatic organisms 1	1 - 10 mg/l (96 h)
LC50 fish 2	0.52 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
TLM fish 1	0.2 - 5,Pisces; Nocivity test
Threshold limit other aquatic organisms 1	1 - 10.96 h

: Causes serious eye irritation.

12.2. Persistence and degradability

PHT Che Plex Zn-Fe-Mn		
Persistence and degradability	Not established.	
Diammonium Salt of Zinc Ethylene-Diaminetetraacetic (67859-51-2)		
Persistence and degradability	Not established.	
Manganese diapotassium EDTA (68015-77-0)		
Persistence and degradability	Not established.	
Diammonium salt of Copper Ethylenediaminetetraacetic acid (67989-88-2)		
Persistence and degradability	Not established.	
Anhydrous Ammonia (7664-41-7)		
Persistence and degradability	Readily biodegradable in water. Ozonation in water. Biodegradable in the soil. No (test)data on mobility of the components available. Ozonation in the air. Not established.	

12.3. Bioaccumulative potential

PHT Che Plex Zn-Fe-Mn	
Bioaccumulative potential	Not established.
Diammonium Salt of Zinc Ethylene-Diaminetetraacetic (67859-51-2)	
Bioaccumulative potential	Not established.
Manganese diapotassium EDTA (68015-77-0)	
Bioaccumulative potential	Not established.
Diammonium salt of Copper Ethylenediaminetetraacetic acid (67989-88-2)	
Bioaccumulative potential	Not established.

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Anhydrous Ammonia (7664-41-7)		
Log Pow	-1.14	
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.	

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Manganese diapotassium EDTA	CAS No 68015-77-0	
Diammonium salt of Copper Ethylenediaminetetraacetic acid	CAS No 67989-88-2	
Dipotassium EDTA	CAS No 2001-94-7	

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Anhydrous Ammonia	CAS No 7664-41-7	

Anhydrous Ammonia (7664-41-7)	
Listed on United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb

15.2. International regulations

CANADA

No additional information available

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EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

Anhydrous Ammonia (7664-41-7)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

SECTION 16: Other information

Other information : None.

Full text of H-phrases:

Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H314	Causes severe skin burns and eye damage
H319	Causes serious eye irritation
H331	Toxic if inhaled
H400	Very toxic to aquatic life

SDS US (GHS HazCom 2012)

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