

## Plant-Prod Solutions 17-5-17

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Plant-Prod Solutions 17-5-17
<b>Other Means of Identification</b>	11075, 11193, 12458
<b>Product Family</b>	Plant-Prod Solutions
<b>Recommended Use</b>	Water Soluble Fertilizer for Plants.
<b>Manufacturer/Supplier Identifier</b>	Master Plant-Prod Inc., 314 Orenda Rd. , Brampton, Ontario, Canada, L6T 1G1, Canada
<b>Emergency Phone No.</b>	CANUTEC, 1-613-996-6666, 24 Hours
<b>Date of Preparation</b>	January 06, 2016

### SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015).

#### Classification

Oxidizing solid - Category 3; Serious eye damage - Category 1; Carcinogenicity - Category 2; Reproductive toxicity - Category 1; Specific target organ toxicity (repeated exposure) - Category 2

#### Label Elements



Signal Word:

Danger

Hazard Statement(s):

H272 May intensify fire; oxidizer.

H318 Causes serious eye damage.

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

H373 May cause damage to organs (blood) through prolonged or repeated exposure.

Precautionary Statement(s):

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220 Keep or store away from clothing and other combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Product Identifier: Plant-Prod Solutions 17-5-17 - Ver. 1

SDS No.: 0151

Date of Preparation: January 06, 2016

Date of Last Revision: February 21, 2019

Page 01 of 07

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P310 Immediately call a POISON CENTRE/doctor/

P314 Get medical advice/attention if you feel unwell.

P370 + P378 In case of fire: Use water spray or fog to extinguish.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Potassium nitrate	7757-79-1	35		
Ammonium nitrate	6484-52-2	28		
Calcium nitrate	10124-37-5	16		
Magnesium nitrate	10377-60-3	11		
Phosphoric acid, potassium salt (2:1)	14887-42-4	9		
Boric acid	10043-35-3	<0.15		
Nitrilotriacetic acid, trisodium salt	5064-31-3	<0.20		

### SECTION 4. FIRST-AID MEASURES

#### First-aid Measures

##### Inhalation

Move to fresh air. Get medical advice or attention if you feel unwell. If breathing has stopped, trained personnel should begin rescue breathing.

##### Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Get medical advice or attention if you feel unwell or are concerned.

##### Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice or attention.

##### Ingestion

For large amounts immediately call a Poison Centre or doctor. Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting.

#### Most Important Symptoms and Effects, Acute and Delayed

May cause mild irritation.

#### Immediate Medical Attention and Special Treatment

##### Special Instructions

See first aid information above. Note to Physicians: Provide general supportive measures and treat symptomatically.

##### Medical Conditions Aggravated by Exposure

None known.

### SECTION 5. FIRE-FIGHTING MEASURES

#### Extinguishing Media

Product Identifier: Plant-Prod Solutions 17-5-17 - Ver. 1

SDS No.: 0151

Date of Preparation: January 06, 2016

Date of Last Revision: February 21, 2019

Page 02 of 07

### Suitable Extinguishing Media

Use flooding quantities of water or other suitable extinguishing agent.

### Unsuitable Extinguishing Media

DO NOT use water jet.

### Specific Hazards Arising from the Product

Oxidizer. May intensify fire.

Corrosive, oxidizing nitrogen oxides; corrosive phosphorous oxides; calcium oxides; magnesium oxides; potassium oxides; metal oxides.

### Special Protective Equipment and Precautions for Fire-fighters

Wear SCBA and full protective clothing. Oxidizer. Prevent contact with flammable and combustible materials.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Remove or isolate incompatible materials as well as other hazardous materials. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Ensure adequate ventilation. Avoid formation and inhalation of dust.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

### Methods and Materials for Containment and Cleaning Up

Contain the spill. Avoid contact with combustibles, organics and ignition sources. Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Review Section 13 (Disposal Considerations) of this safety data sheet.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe dust. Do not get in eyes, on skin or on clothing. Only use where there is adequate ventilation. Avoid exposure during pregnancy and while nursing. Avoid generating dusts. Avoid release to the environment. Prevent accidental contact with incompatible chemicals.

### Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated. Keep out of reach of children. Store in a closed container. Keep separate from acids, alkalis, reducing agents and combustibles.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Potassium nitrate	5 mg/m <sup>3</sup>					
Ammonium nitrate	10 mg/m <sup>3</sup>		15 mg/m <sup>3</sup>			
Boric acid	2 mg/m <sup>3</sup>	6 mg/m <sup>3</sup>				
Nitrilotriacetic acid, trisodium salt			15 mg/m <sup>3</sup>			
Phosphoric acid, potassium salt (2:1)	3 mg/m <sup>3</sup>					

### Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Product Identifier: Plant-Prod Solutions 17-5-17 - Ver. 1

SDS No.: 0151

Date of Preparation: January 06, 2016

Date of Last Revision: February 21, 2019

Page 03 of 07

Wear chemical safety goggles.

**Skin Protection**

Wear chemical protective clothing e.g. gloves, aprons, boots.

**Respiratory Protection**

Use an appropriate NIOSH approved particulate respirator. Monitor dust levels within working area and ensure adequate ventilation.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

<b>Appearance</b>	fine powder. Particle Size: Not available
<b>Odour</b>	Slight ammonia odour
<b>Odour Threshold</b>	Not applicable
<b>pH</b>	Not available
<b>Melting Point/Freezing Point</b>	Not available (melting); 44 °C (freezing)
<b>Initial Boiling Point/Range</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Will not burn.
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density (air = 1)</b>	Not applicable
<b>Relative Density (water = 1)</b>	Not available
<b>Solubility</b>	Not available in water; Not available (in other liquids)
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not applicable (kinematic)
<b>Other Information</b>	
<b>Physical State</b>	Solid
<b>Molecular Formula</b>	Not applicable
<b>Molecular Weight</b>	Not applicable
<b>Bulk Density</b>	1.91 kg/L

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

### Conditions to Avoid

Heat. Water, moisture or humidity. Open flames, sparks, static discharge, heat and other ignition sources.

### Incompatible Materials

Strong acids, strong alkaloids, oxidizers, organics.

## Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. In a fire, the following hazardous materials may be generated. Corrosive phosphorous oxides; corrosive, oxidizing nitrogen oxides; magnesium oxides; calcium oxides; potassium oxides; metal oxides.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Potassium nitrate		3750 mg/kg (rat)	
Ammonium nitrate	> 88.8 mg/L (rat)	2800 mg/kg (rat)	> 5000 mg/kg (rat)
Magnesium nitrate		5400 mg/kg (rat)	
Calcium nitrate		302 mg/kg (rat)	
Boric acid		2660 mg/kg	
Nitrilotriacetic acid, trisodium salt		1740 mg/kg (rat)	
Phosphoric acid, potassium salt (2:1)		> 2000 mg/kg (rat)	

### Skin Corrosion/Irritation

Irritation could occur with prolonged exposure to dry fertilizer or fertilizer solution.

### Serious Eye Damage/Irritation

May cause serious eye damage based on information for closely related materials.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

Very low vapour activity. May cause nose and throat irritation, lung injury. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest. May cause damage to organs based on information for closely related materials.

#### Skin Absorption

Not absorbed through skin.

#### Ingestion

If large amounts are swallowed symptoms may include nausea, vomiting, stomach cramps and diarrhea.

### Aspiration Hazard

No information was located.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause irritation of the respiratory system. May cause respiratory tract injury.

### Respiratory and/or Skin Sensitization

Skin sensitizer.

### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Boric acid		A4		
Nitrilotriacetic acid, trisodium salt	Group 2B	Not Listed		Not Listed

Nitrilotriacetic Acid (NTA) and its salts were determined to be "possibly carcinogenic to humans by IARC, a compound which "may reasonably be anticipated to be a carcinogen" by NTP and a "select carcinogen" by OSHA.

## Reproductive Toxicity

### Development of Offspring

Boric acid may cause birth defects, based on animal data.

### Sexual Function and Fertility

Boric acid may impair male fertility, based on animal data.

### Effects on or via Lactation

No information was located.

## Germ Cell Mutagenicity

No information was located.

## Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Potassium nitrate		490 mg/L (Daphnia magna (water flea); 24-hour)		
Ammonium nitrate	6000 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour)	555 mg/L (Daphnia magna (water flea); 24-hour; fresh water; static)		
Calcium nitrate	447 mg/L (Labeo boga (fresh water); 48-hour; fresh water)			
Boric acid	11100 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour)			

#### Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Potassium nitrate				900 mg/L (Daphnia magna (water flea); 4.2 days)

## Persistence and Degradability

No information was located.

## Bioaccumulative Potential

No information was located.

## Mobility in Soil

No information was located.

## Other Adverse Effects

There is no information available.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

Product Identifier: Plant-Prod Solutions 17-5-17 - Ver. 1

SDS No.: 0151

Date of Preparation: January 06, 2016

Date of Last Revision: February 21, 2019

Page 06 of 07

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

## SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	2071	AMMONIUM NITRATE FERTILIZERS	Class 9	III
US DOT	2071	AMMONIUM NITRATE FERTILIZERS	Class 9	III

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15. REGULATORY INFORMATION

**Safety, Health and Environmental Regulations**

**Canada**

**Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

All ingredients are listed on the DSL.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** MPPI Technical Department

**Phone No.** 905-793-8000

**Date of Last Revision** February 21, 2019

**Revision Indicators** The following SDS content was changed on January 18, 2016:  
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.  
The following SDS content was changed on January 18, 2016:  
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.  
The following SDS content was changed on March 29, 2016:  
Section 11 - Toxicological Information; LC50/LD50 values.

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).  
Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

**Disclaimer** To the best of our knowledge, the information contained herein is accurate. However, neither Master Plant-Prod Inc., nor any of its distributors, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Although certain hazards are described, we cannot guarantee that these are the only hazards that exist. Final determination of suitability of any product is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution.

Product Identifier: Plant-Prod Solutions 17-5-17 - Ver. 1

SDS No.: 0151

Date of Preparation: January 06, 2016

Date of Last Revision: February 21, 2019

Page 07 of 07