

Plant-Prod Solutions 19-2-19

SECTION 1. IDENTIFICATION

Product Identifier	Plant-Prod Solutions 19-2-19
Other Means of Identification	11581
Product Family	Plant-Prod Solutions
Recommended Use	Water Soluble Fertilizer for Plants.
Manufacturer/Supplier Identifier	Master Plant-Prod Inc., 314 Orenda Rd. , Brampton, Ontario, Canada, L6T 1G1, Canada
Emergency Phone No.	CANUTEC, 1-613-996-6666, 24 Hours
Date of Preparation	February 11, 2016

SECTION 2. HAZARD IDENTIFICATION

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

Classification

Oxidizing solid - Category 3; Eye irritation - Category 2; Carcinogenicity - Category 2; Reproductive toxicity - Category 1

Label Elements



Signal Word:

Danger

Hazard Statement(s):

- H272 May intensify fire; oxidizer.
- H319 Causes serious eye irritation.
- H351 Suspected of causing cancer.
- H360 May damage fertility or the unborn child.

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.
- P264 Wash hands and skin thoroughly after handling.
- 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.
- P308 + P313 IF exposed or concerned: Get medical advice/attention.
- P337 + P313 If eye irritation persists: Get medical advice/attention.

Product Identifier: Plant-Prod Solutions 19-2-19 - Ver. 1
 Date of Preparation: February 11, 2016
 Date of Last Revision: November 12, 2018

SDS No.: 00410060

Page 01 of 07

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.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Ammonium nitrate	6484-52-2	43		
Potassium nitrate	7757-79-1	41		
Phosphoric acid, potassium salt (2:1)	14887-42-4	4		
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. If breathing has stopped, trained personnel should begin rescue breathing. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Call a Poison Centre or doctor if you feel unwell.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

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

Suitable Extinguishing Media

Use flooding quantities of water or other suitable extinguishing agent.

Unsuitable Extinguishing Media

DO NOT use water jet.

Product Identifier: Plant-Prod Solutions 19-2-19 - Ver. 1

SDS No.: 00410060

Date of Preparation: February 11, 2016

Date of Last Revision: November 12, 2018

Page 02 of 07

Specific Hazards Arising from the Product

Mild oxidizer. May intensify fire.

Corrosive, flammable ammonia; very toxic carbon monoxide, carbon dioxide; corrosive phosphorous oxides; corrosive, oxidizing nitrogen oxides; potassium 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.

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. Sweep up spilled material and use or dispose of in approved manner.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not breathe in this product. Do not get in eyes, on skin or on clothing. Avoid exposure during pregnancy and while nursing. Avoid generating dusts. Only use where there is adequate ventilation.

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 ³					
Ammonium nitrate	10 mg/m ³		15 mg/m ³			
Phosphoric acid, potassium salt (2:1)	3 mg/m ³					
Boric acid	2 mg/m ³	6 mg/m ³				
Nitrilotriacetic acid, trisodium salt			15 mg/m ³			

Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation and enclosure, if necessary, to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

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

Respiratory Protection

Use an appropriate respirator or dust mask.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

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

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use. May intensify fire.

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

Acids, corrosives, fuels, oxidizers, combustibles.

Hazardous Decomposition Products

Corrosive, flammable ammonia; corrosive, oxidizing nitrogen oxides; very toxic carbon monoxide, carbon dioxide; corrosive phosphorous oxides; potassium oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Product Identifier: Plant-Prod Solutions 19-2-19 - Ver. 1
Date of Preparation: February 11, 2016
Date of Last Revision: November 12, 2018

SDS No.: 00410060

Page 04 of 07

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)
Phosphoric acid, potassium salt (2:1)		> 2000 mg/kg (rat)	
Boric acid		2660 mg/kg	
Nitrilotriacetic acid, trisodium salt		1740 mg/kg (rat)	

Skin Corrosion/Irritation

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

Serious Eye Damage/Irritation

Irritation or burn could occur if fertilizer solution is splashed in eyes or dry product contacted.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause nose and throat irritation, lung injury.

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

No information was located.

Respiratory and/or Skin Sensitization

Mild 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.

Product Identifier: Plant-Prod Solutions 19-2-19 - Ver. 1

SDS No.: 00410060

Date of Preparation: February 11, 2016

Date of Last Revision: November 12, 2018

Page 05 of 07

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)		
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

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	9	III
US DOT	2071	AMMONIUM NITRATE FERTILIZERS	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

Product Identifier: Plant-Prod Solutions 19-2-19 - Ver. 1

SDS No.: 00410060

Date of Preparation: February 11, 2016

Date of Last Revision: November 12, 2018

Page 06 of 07

Canada

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

All ingredients are listed on the DSL.

CEPA - National Pollutant Release Inventory (NPRI)

No ingredients are listed in the NPRI.

SECTION 16. OTHER INFORMATION

SDS Prepared By MPPI Technical Department

Phone No. 905-793-8000

Date of Preparation February 11, 2016

Date of Last Revision November 12, 2018

Revision Indicators 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.