

Plant-Prod Solutions 17-5-17

SECTION 1. IDENTIFICATION

Product Identifier	Plant-Prod Solutions 17-5-17
Other Means of Identification	11075, 11193, 12458
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, 1-888-226-8832 (North America) or 1-613-996-6666 (International), 24 Hours

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

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.

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.
- 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.
- P310 Immediately call a POISON CENTRE or doctor.
- P370 + P378 In case of fire: Use water spray or fog to extinguish.

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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	34		
Ammonium nitrate	6484-52-2	28		
Calcium nitrate	10124-37-5	16		
Magnesium nitrate	10377-60-3	11		
Boric acid	10043-35-3	<0.15		
Nitrilotriacetic acid, disodium salt	15467-20-6	<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 at least 30 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. 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

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

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Oxidizer. May intensify fire.

In a fire, the following hazardous materials may be generated: 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
Ammonium nitrate	10 mg/m ³		15 mg/m ³			
Boric acid	2 mg/m ³	6 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. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

When handling dry concentrated product: wear protective safety glasses. When handling dissolved product: 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

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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); 44 °C (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 applicable
Relative Density (water = 1)	Not available
Solubility	Not available in water; Not available (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not available
Viscosity	Not applicable (kinematic)
Other Information	
Physical State	Solid
Molecular Formula	Not applicable
Molecular Weight	Not applicable
Bulk Density	1.91 kg/L

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable. Hygroscopic.

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. Review Section 5 (Specific Hazards Arising from the Product) for hazardous materials generated in a fire.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

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Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Ammonium nitrate	> 88.8 mg/L (rat)	2800 mg/kg (rat)	> 5000 mg/kg (rat)
Magnesium nitrate		5400 mg/kg (rat)	
Calcium nitrate		300-2000 mg/kg (rat)	
Boric acid		2660 mg/kg	

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 (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

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Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
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)			

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	1477	Nitrates, Inorganic, N.O.S.	5.1	III
Canadian TDG	1477	Nitrates, Inorganic, N.O.S.	5.1	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

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Revision Indicators	SECTION 2. HAZARD IDENTIFICATION SECTION 14. TRANSPORTATION INFORMATION
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.

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