

Plant-Prod 12-0-12

SECTION 1. IDENTIFICATION

| | |
|---|---|
| Product Identifier | Plant-Prod 12-0-12 |
| Other Means of Identification | 10122 |
| Product Family | Plant-Prod |
| 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 | March 02, 2016 |

SECTION 2. HAZARD IDENTIFICATION

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

Classification

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

Label Elements



Signal Word:

Danger

Hazard Statement(s):

H318 Causes serious eye damage.

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.

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.

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

P310 Immediately call a POISON CENTRE or doctor.

P314 Get medical advice/attention if you feel unwell.

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 | 27 | | |
| Manganese Sulphate | 7785-87-7 | 8 | | |
| Zinc sulfate | 7733-02-0 | 6 | | |
| Boric acid | 10043-35-3 | 5 | | |

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. If breathing has stopped, trained personnel should begin rescue breathing. Call a Poison Centre or doctor.

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.

Specific Hazards Arising from the Product

Mild oxidizer. May intensify fire.

In a fire, the following hazardous materials may be generated: corrosive, flammable ammonia; very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive sulfur oxides.

Special Protective Equipment and Precautions for Fire-fighters

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

Product Identifier: Plant-Prod 12-0-12 - Ver. 1

SDS No.: 02080002

Date of Preparation: March 02, 2016

Date of Last Revision: March 13, 2019

Page 02 of 07

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. Only use where there is adequate ventilation. Avoid generating dusts.

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 | | | | | |
| Manganese Sulphate | 0.2 mg/m ³ | | | 5 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

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

| | |
|------------------------------|---|
| Appearance | Blue 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) |

Product Identifier: Plant-Prod 12-0-12 - Ver. 1

SDS No.: 02080002

Date of Preparation: March 02, 2016

Date of Last Revision: March 13, 2019

Page 03 of 07

| | |
|---|--|
| 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

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, flammable ammonia; very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive sulfur oxides; magnesium oxides; cyanuric acid.

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) | |
| Manganese Sulphate | | 2150 mg/kg | |
| Boric acid | | 2660 mg/kg | |

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

At high concentrations irritation of the respiratory system. May cause respiratory tract injury.

Respiratory and/or Skin Sensitization

Mild skin sensitizer.

Carcinogenicity

| Chemical Name | IARC | ACGIH® | NTP | OSHA |
|---------------|------|--------|-----|------|
| Boric acid | | A4 | | |

Not known to cause cancer.

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) | | |
| Boric acid | 11100 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour) | | | |

Chronic Aquatic Toxicity

Product Identifier: Plant-Prod 12-0-12 - Ver. 1

SDS No.: 02080002

Date of Preparation: March 02, 2016

Date of Last Revision: March 13, 2019

Page 05 of 07

| 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

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

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 Preparation March 02, 2016

Date of Last Revision March 13, 2019

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 12-0-12 - Ver. 1
Date of Preparation: March 02, 2016
Date of Last Revision: March 13, 2019

SDS No.: 02080002

Page 07 of 07