

3-18-18

**MATERIAL SAFETY DATA SHEET****1. PRODUCT AND COMPANY IDENTIFICATION****3-18-18**

Agricultural Liquid Fertilizer

**Manufacturer / Supplier**

Terralink Horticulture Inc.  
464 Riverside Road,  
Abbotsford, BC. Canada  
V2S 7M1  
Ph: 604-864-9044  
Fax: 604-864-8418

**EMERGENCY CONTACT INFORMATION**  
**CEDA Emergency Response Team (C.E.R.T)**

**24 hour Telephone: 604-540-4100**  
**Chemical Spill: 1-800-663-3456**

**2. HAZARDOUS INGREDIENTS**

<u>Hazardous Ingredients</u>	<u>%</u>	<u>CAS#</u>	<u>TLV</u>	<u>LD50</u>	<u>LC50</u>
<b>Frit 503G Micro Mix</b>	2.7				
Lead Sulfate		7446-14-2	0.05mg/m <sup>3</sup>	N/AV	N/AV
Sodium Borate		11130-12-4	2mg/m <sup>3</sup>	(rat) 2330MG/KG	N/AV
Copper Dioxide		1317-39-1	N/AV	(rat) 470mg/m3	N/AV
Copper Sulfate		7758-98-7	1mg/m <sup>3</sup>	(rat) 300mg/kg	N/AV
Iron Oxide		1332-23-7	Not est.	(rat) 5500mg/kg	N/AV
Iron Sulfate		7720-78-7	1mg/m <sup>3</sup>	(rat) 319mg/kg	N/AV
Manganese Oxide		1344-43-0	0.2mg/m <sup>3</sup>	(rat) 1000mg/kg	N/AV
Manganese Sulfate		7785-87-7	0.2mg/m <sup>3</sup>	(rat) 332mg/kg	N/AV
Molybdcic Oxide		1313-27-5	N/AV	(rat) 125mg/kg	N/AV
Zinc Oxide		1314-13-2	2mg/m <sup>3</sup>	(rat) 7950mg/kg	N/AV
Zinc Sulfate		7733-02-2	Not est.	(rat) 2949mg/kg	N/AV
<b>Boron</b>		1330-43-4	2mg/m <sup>3</sup>	(rat)1200mg/kg	(rat)>2040mg/m <sup>3</sup>
<b><u>Non-hazardous Ingredients</u></b>					
<b>Urea, 46-0-0</b>					
Urea		57-13-6	N/AV	(rat) 8471mg/kg	N/AV
Methylene diurea		9011-05-6	N/AV	N/AV	N/AV
Imidodicarbonic diamide (biuret)		108-19-0	N/AV	N/AV	N/AV
<b>Potassium Magnesium Sulfate</b>		14977-37-8	3mg/m <sup>3</sup>	N/AV	N/AV
Sodium Chloride		7647-14-5	5mg/m <sup>3</sup>	3g/kg	(rat)>42g/m <sup>3</sup> /1hr
<b>Water</b>		7723-18-5	Not est.	(rat)>89,840mg/kg	N/AV
<b>Potassium Sulfate</b>		7778-80-5	Not Est.	(rat) 6600mg/kg	N/AV
<b>K-Mag</b>					
Potassium Magnesium Sulfate		14977-37-8	3mg/m <sup>3</sup>	N/AV	N/AV
Sodium Chloride		7647-14-5	5mg/m <sup>3</sup>	(rat) 3g/kg	(rat) >42g/m <sup>3</sup> /1hr
<b>Triple Superphosphate</b>					
Mono-calcium Phosphate		7758-23-8	10mg/m <sup>3</sup>	(rat) ~5500mg/kg	N/AV
Mono-dicalcium Phosphate					

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### 3. PHYSICAL DATA

**Physical state:** Liquid  
**Specific gravity:** N/AP  
**Boiling point:** N/AV  
**Melting point:** N/AV  
**Appearance and Odour:** light bluish green liquid  
**Odour Threshold (ppm):** N/AV  
**Vapour Density:** N/AV  
**Vapour Pressure (mmHg):** Negligible  
**pH:** N/AV  
**Evaporation Rate:** N/AV  
**Coefficient of Water/Oil Distribution:** N/AV

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### 4. FIRE AND EXPLOSION DATA

**Flammability under which conditions:** none  
**Means of Extinction:** Does not burn. Use extinguishing media appropriate to the surrounding fire conditions  
**Flashpoint:** N/AP  
**Autoignition Temperature:** N/AP  
**Hazardous Combustion Products:** N/AV  
**Upper Flammable Limit (% by volume):** N/AV  
**Lower Flammable Limit (% by volume):** N/AV  
**Explosion Data – Sensitivity to Impact:** N/AV  
**Explosion Data- Sensitivity to Static Discharge:** N/AV

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### 5. REACTIVITY DATA

**Chemical Stability:** Normally stable.  
**Incompatibility with Other Substances:** Strong oxidizing agents. Prolonged contact may cause oxidation of unprotected metals.  
**Hazardous Decomposition Products:** Combustion can yield oxides of sulfur when heated above 537°C (1000°F). During extremely high temperature fire conditions, the product may decompose to release NH<sub>3</sub>, SO<sub>x</sub>, PO<sub>x</sub> or CN.

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### 6. TOXICOLOGICAL PROPERTIES

#### Routes of Entry

**Skin Contact:** YES **Skin Absorption:** no **Eye Contact:** YES **Inhalation:** no **Ingestion:** no

**Effects of Acute Exposure to Product:** Minor, temporary irritation on skin contact. Not normally ingested, but in large amounts can cause stomach cramps, vomiting, diarrhea, excitement and convulsions.

**Effects of Chronic Exposure to Product:** Not known

**Exposure Limits:** N/AV for mixture.  
**Irritancy:** YES; contact with eyes / skin  
**Sensitization:** N/AV  
**Carcinogenicity:** N/AV  
**Reproductive Toxicity:** N/AV  
**Teratogenicity:** N/AV  
**Mutagenicity:** N/AV  
**Synergistic Products:** None known.

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## 7. PREVENTIVE MEASURES

### Personal Protective Equipment

**Gloves: Y**     **Respirator: N**     **Eye: Y**     **Footwear: N**     **Clothing: Y**     **Other**  
If Y above specify

**Gloves:** Rubber, Nitrile

**Eye:** Dust or splash-proof chemical safety goggles or face shield

**Clothing:** Rubber or Nitrile gloves, long sleeve shirts and pants or coveralls, boots, and/or other resistant protective clothing. Have a safety eyewash fountain readily available in the work area.

**Engineering Controls:** Use local exhaust ventilation to control vapours and mist. Supply sufficient replacement air to make up for air removed by exhaust system, process of personnel enclosure and control of process conditions.

**Leak and Spill Procedures:** Restrict access to area until completion of clean-up. Provide adequate personal protective equipment and ensure clean-up is conducted by trained personnel only. Ventilate area. Remove any reactive chemicals from the area.

**Waste Disposal:** According to local, provincial and federal government requirements

**Handling Procedures and Equipment:** Avoid inhalation and eye contact. Wear rubber or Nitrile gloves, chemical splash goggles and dust mask. Do not mix with incompatible materials. (see Section 5)

**Storage Requirements:** Keep in a cool, dry and well-ventilated area. Store away from incompatible materials

**Special Shipping Information:** Normal shipping procedures     **PIN:** N/AV

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## 8. FIRST AID MEASURES

**Inhalation:** Remove source of contamination or have victim move to fresh air. Obtain medical advice immediately

**Ingestion:** If irritation or discomfort occurs, obtain medical advice immediately. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITTING. Have victim drink 240 to 300 mL (8-10 oz.) of water. If vomiting occurs naturally, rinse mouth with and repeat administration of water. Obtain medical attention immediately.

**Skin Contact:** Flush with lukewarm, gently flowing water until the chemical is removed. Remove contaminated clothing, shoes and leather goods (e.g. watchbands, belts, etc.). Obtain medical attention if pain or irritation persists. Completely decontaminate clothing, shoes and leather goods before re-use or discard.

**Eye Contact:** Do not let victim rub eyes. Immediately flush eye(s) with lukewarm, gently running water for at least 20 minutes, while holding the eyelid(s) open. If irritation persists, obtain medical advice.

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**9. PREPARATION INFORMATION**

Prepared by:

Regulatory Affairs  
Terralink Horticulture Inc.

Telephone Number(s):  
604-864-9044  
800-661-4559

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**Disclaimer:**

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