

MATERIAL SAFETY DATA SHEET

Garden Pro Aluminum Sulphate

MSDS Date of Issue: 9/11/08

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Garden Pro Aluminum Sulphate
PRODUCT CODE(S): 7145143

MANUFACTURER: TerraLink Horticulture Inc.
ADDRESS: 464 Riverside Road, Abbotsford, BC. Canada V2S 7M1
PHONE: 604-864-9044

24 HOUR CEDA EMERGENCY PHONE: 604-540-4100
CHEMICAL SPILLS: 800-663-3456

PRODUCT USE: Fertilizer
PREPARED BY: Regulatory Affairs
REVISION DATE: November 30, 2010.

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

<u>REPORTABLE INGREDIENT(S)</u>	<u>CAS NO.</u>	<u>EXPOSURE LIMITS OSHA PEL-TWA</u>	<u>% VOL/WT</u>
Aluminum sulphate	10043-01-3	2mg/m ³	86.4

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION: KEEP OUT OF REACH OF CHILDREN

ROUTES OF ENTRY: Skin, eye, inhalation

ACUTE HEALTH EFFECTS

EYES: Aluminum sulphate anhydrous is a severe eye irritant based on animal information. The dust becomes acidic following contact with moisture in the eye and moderate to severe irritation can result.

SKIN: May cause skin irritation, especially under repeated or prolonged contact or when moisture is present. Aluminum is very poorly absorbed through the skin and toxic effects would not be expected following short-term skin contact. Prolonged and repeated exposure to dilute solutions often causes irritation, redness, pain and drying and cracking of the skin.

INGESTION: May irritate the gastrointestinal tract and cause nausea, vomiting and purging. Acute exposure can cause incoordination, muscle spasms and kidney effects.

INHALATION: Dust or mist inhalations may irritate nose, throat and lungs.

CHRONIC HEALTH HAZARDS: In general, long-term exposures to high concentrations of dust may cause increased mucous flow in the nose and respiratory system airways. This condition usually disappears after exposure stops. Controversy exists as to the role exposure to dust has in the development of chronic bronchitis. Other factors such as smoking and general air pollution are more important, but dust exposure may also contribute. Prolonged or repeated contact with dust or irritating solutions may cause redness, dryness and itching of the skin.

CARCINOGENICITY: No

SECTION 4: FIRST AID MEASURES

EYES: 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.

SKIN: 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 develops or persists. Completely decontaminate clothing, shoes and leather goods before re-use or discard.

INGESTION: Not normally ingested. **NEVER** give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. If irritation or discomfort occurs obtain medical advice immediately.

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

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Does not burn. Use extinguishing media for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: NAb

UNUSUAL FIRE AND EXPLOSION HAZARDS: Dry aluminum will dissolve in water to form sulfuric acid which reacts with some metals, especially when dilute, to give flammable, potentially explosive hydrogen gas. Hydrogen gas can accumulate to explosive concentrations inside confined spaces.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of sulphur. Aluminum oxides. Corrosive fumes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: 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.

SECTION 6 NOTES: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Avoid contact with eyes, skin and clothing. Avoid breathing in dust. Avoid breathing vapours, mist, fume or dust. Do not ingest. Use good personal hygiene. Keep the containers closed when not in use. Empty containers may contain hazardous product residues. Good housekeeping procedures should be followed to minimize dust generation and accumulation. When there is a large-scale use, do not use in areas equipped with sprinkler systems. Post "DO NOT USE WATER" signs. Good housekeeping is important to prevent accumulations of dust. Dry sweeping is not recommended. Contact with water forms sulphuric acid. Store in cool dry place away from children, feed and food products, and seed.

OTHER PRECAUTIONS: May be toxic to fish and other aquatic organisms. Do not contaminate water supplies by handling and storage of product. Drift or runoff may adversely affect aquatic invertebrates and non-target plants.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING / VENTILATION CONTROLS: Use local exhaust ventilation to control dust or mist. Supply sufficient replacement air to make up for air removed by exhaust system, process of personnel enclosure and control of process conditions.

RESPIRATORY PROTECTION: For operations where the exposure limit may be exceeded, a NIOSH/MSHA approved high efficiency particulate respirator is recommended.

EYE PROTECTION: Dust or splash-proof chemical safety goggles or face shield.

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

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White to creamy white

ODOR: Odourless

PHYSICAL STATE: Solid, granules or powder

pH AS SUPPLIED: >2.9 @ 5%

pH (Other): NAb

BOILING POINT: NAb

MELTING POINT: NAb

FREEZING POINT: NAb

VAPOR PRESSURE (mmHg): NAb

VAPOR DENSITY (AIR = 1): NAb

SPECIFIC GRAVITY (H₂O = 1): 1.61

EVAPORATION RATE: NAb

BASIS (=1): NAb

SOLUBILITY IN WATER: Soluble

PERCENT SOLIDS BY WEIGHT: NAb

PERCENT VOLATILE: NAb

VOLATILE ORGANIC COMPOUNDS (VOC): NAb

WITH WATER: NAb LBS/GAL

WITHOUT WATER: NAb LBS/GAL

MOLECULAR WEIGHT: 594 g/mole

VISCOSITY: NAb

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Normally stable

CONDITIONS TO AVOID (STABILITY): Temperatures over 760°C. Contact with water forms sulphuric acid. May corrode ferrous metals and mild steel in presence of moisture.

INCOMPATIBILITY (MATERIAL(S) TO AVOID): Strong bases, oxidizing agents, alkalis. Water-reactive materials such as oleum cause exothermic reactions.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: At temperatures above 760C, sulfur dioxide gases are released which are toxic, corrosive and are oxidizers. The remaining residue is caustic. The trioxide is also a fire hazard. Oxides of aluminum.

HAZARDOUS POLYMERIZATION: NAb

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Aluminum sulphate has been shown to cause liver, kidney and nervous system toxicity when tested in laboratory animals. Repeated ingestion may cause phosphate deficiency, which can weaken bones. Aluminum sulphate has been shown to cause an increase in chromosomal breaks when tested in rat somatic cells IN VIVO and to induce sister chromatid exchanges, chromosomal aberrations and micronuclei in human leukocytes under IN VITRO conditions.

Skin irritations may be aggravated in individuals with existing skin lesions. Breathing of dust may aggravate acute or chronic asthma and chronic pulmonary disease such as emphysema and bronchitis.

SECTION 12: ECOLOGICAL INFORMATION

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ECOLOGICAL INFORMATION: Drift or runoff may adversely affect non-target plants. Do not apply directly to water. Do not contaminate water when disposing of equipment wash water. Do not apply when weather conditions favour drift from target area. Products of Degradation: These products are carbon and sulphur oxides (CO₂, CO, SO₃ & SO₄). Toxicity is primarily associated with acidic pH. Acidic soil conditions can develop with the material present leading to release of some trace metals.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of according to local, provincial and federal government requirements.

RCRA HAZARD CLASS: NA

SECTION 14: TRANSPORT INFORMATION

CANADIAN TDG DESCRIPTION (Road and Rail): Not regulated for transport by Road/Rail in Canada. Contact manufacturer for updates to transport information.

Only regulated for TDG under class 9 if intended for disposal
Marine Pollutant: No

SECTION 15: REGULATORY INFORMATION

WHMIS HAZARD CLASS: Class D, Div. 2B – Materials Causing Other Toxic Effects (TOXIC) 

SECTION 15 NOTES: This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16: OTHER INFORMATION

ADDITIONAL INFORMATION:

Abbreviations used throughout the MSDS are: NA = Not available
 NAb = Not available for blend
 NAp = Not applicable
 N/E = None established

Company references utilized in preparation of the MSDS.

DISCLAIMER:

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