

TECHNAFLORA PLANT PRODUCTS LTD.

Material Safety Data Sheet

Awesome Blossoms

1. Product and company identification

Common name	: Awesome Blossoms
Material uses	: Hydroponic nutrients.
Supplier/Manufacturer	: Technaflora Plant Products Ltd. 7261 River Place, 101 Mission, B.C. Canada, V4S 0A2 Tel. 604-826-4759 / 1-800-586-1211
In case of emergency	: CHEMTREC, U.S. : (800) 424-9300 International: (703) 527-3887

2. Hazards identification

Physical state	: Liquid.
Hazard status	: This material is classified as hazardous under OSHA regulations.
Emergency overview	: CAUTION ! MAY BE HARMFUL IF SWALLOWED. MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. Do not ingest. Avoid contact with skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects	
Eyes	: Moderately irritating to eyes.
Skin	: Moderately irritating to the skin.
Inhalation	: Moderately irritating to the respiratory system.
Ingestion	: May be harmful if swallowed.
Potential chronic health effects	: Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH. Mutagenic effects: Not available. Teratogenic effects: Not available.
Medical conditions aggravated by over-exposure	: Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation.
See toxicological information (section 11)	

3. Composition/information on ingredients

United States		
Name	CAS number	%
Monopotassium Phosphate	7778-77-0	10 - 30
Diphosphoric acid, tetrapotassium salt	7320-34-5	10 - 30
Ammonium Nitrate	6484-52-2	5 - 10

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4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Notes to physician** : No specific antidote. Medical staff must contact Poison Control Center.

5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Products of combustion** : These products are nitrogen oxides, phosphates. Some metallic oxides.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

7 . Handling and storage

- Handling** : Do not ingest. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

United States	
Product name	Exposure limits
Monopotassium Phosphate	ACGIH TLV (United States). TWA: 5 mg/m ³ 8 hour(s). Form: Dust
Diphosphoric acid, tetrapotassium salt	ACGIH TLV (United States). TWA: 5 mg/m ³ 8 hour(s). Form: Dust

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Personal protection**

- Eyes** : Safety glasses.
- Skin** : Lab coat.
- Respiratory** : A respirator is not needed under normal and intended conditions of use.
- Hands** : Natural rubber (latex).



- HMIS Code/Personal protective equipment** : B
- Personal protection in case of a large spill** : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

9 . Physical and chemical properties

- Physical state** : Liquid.
- pH** : Acidic.
- Boiling/condensation point** : The lowest known value is 100°C (212°F) (Water).
- Melting/freezing point** : May start to solidify at 0°C (32°F) based on data for: Water.
- Relative density** : Weighted average: 1.03 (Water = 1)
- Vapor pressure** : The highest known value is 2.3 kPa (17.5 mm Hg) (at 20°C) (Water).
- Vapor density** : The highest known value is 0.62 (Air = 1) (Water).
- Evaporation rate** : 0.36 (Water) compared with Butyl acetate.
- Solubility** : Easily soluble in methanol, acetone.
Partially soluble in cold water, hot water.

10 . Stability and reactivity

- Stability and reactivity** : The product is stable.
- Incompatibility with various substances** : Reactive with reducing materials, organic materials, acids and alkalis.
- Hazardous polymerization** : Will not occur.
- Conditions of reactivity** : Slightly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
Non-flammable in the presence of the following materials or conditions: heat.

11 . Toxicological information

Toxicity data

Product/ingredient name	Test	Result	Route	Species
Monopotassium Phosphate	LD50	>2000 mg/kg	Oral	Rat
	LD50	>4640 mg/kg	Dermal	Rabbit
Diphosphoric acid, tetrapotassium salt	LD50	>4640 mg/k	Dermal	Rabbit
	LD50	2217 mg/kg	Oral	Rat
Ammonium Nitrate	LD50	3000 mg/kg	Dermal	Rabbit

Acute Effects

- Eyes** : Moderately irritating to eyes.
- Skin** : Moderately irritating to the skin.
- Inhalation** : Moderately irritating to the respiratory system.
- Ingestion** : May be harmful if swallowed.

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Potential chronic health effects

: Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.
 Mutagenic effects: Not available.
 Teratogenic effects: Not available.

12 . Ecological information

Ecotoxicity data			
Product/ingredient name	Species	Period	Result
Ammonium Nitrate	Fish (LC50)	96 hour(s)	>9100 mg/l

Environmental precautions : No known significant effects or critical hazards.

Products of degradation : These products are nitrogen oxides, phosphates. Some metallic oxides.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements.

14 . Transport information

NAERG : Not applicable.

Regulatory information

UN/ IMDG/IATA DOT : Not regulated.

15 . Regulatory information**United States**

HCS Classification : Irritating material

U.S. Federal regulations : TSCA : All components listed.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Ammonium Nitrate

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Ammonium Nitrate: Fire hazard, reactive

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	: Ammonium Nitrate	6484-52-2	5 - 10

Supplier notification	: Ammonium Nitrate	6484-52-2	5 - 10
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SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations : Pennsylvania RTK: Ammonium Nitrate: (environmental hazard, generic environmental hazard)
 Massachusetts RTK: Ammonium Nitrate
 New Jersey: Ammonium Nitrate
 California prop. 65: No products were found.

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International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements (U.S.A.) : MAY BE HARMFUL IF SWALLOWED.
MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.

Hazardous Material Information System (U.S.A.) :

HMIS RATING	
Health	1
Fire hazard	0
Physical Hazard	0
Personal protection	B

HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal

See section 8 for more detailed information on personal protection.

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.