Conforms to ANSI Z400.1-2011 Standard (United States).

TECHNAFLORA PLANT PRODUCTS LTD.

Material Safety Data Sheet

BC Bloom

1 . Product and company identification

Common name : **BC Bloom**

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 not hazardous under OSHA regulations.

Emergency overview : No specific hazard.
USE WITH CARE.
Follow good industrial hygiene practice.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eyes : Slightly irritating to the eyes.

Skin : Slightly irritating to the skin.

Inhalation : Slightly irritating to the respiratory system.

Ingestion : No known significant effects or critical hazards.

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 or prolonged exposure is not known to aggravate any medical condition.

See toxicological information (section 11)

3 . Composition/information on ingredients

United States

Name	CAS number	%
Monopotassium Phosphate	7778-77-0	5 - 10
Potassium nitrate	7757-79-1	5 - 10

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.

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Notes to physician : No specific antidote. Medical staff must contact Poison Control Center.

5 . Fire-fighting measures

Flammability of the product : Non-flammable.

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 : 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

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 : Disposable vinyl gloves.

HMIS Code/Personal protective equipment : A

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.

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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: 1.12 (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.
Insoluble in n-octanol.

10 . Stability and reactivity

Stability and reactivity : The product is stable.

Incompatibility with various substances : Reactive with oxidizing materials, organic materials, acids and alkalis.
Slightly reactive or incompatible with the following materials: reducing materials and moisture.

Hazardous polymerization : Will not occur.

Conditions of reactivity : 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
Potassium nitrate	LD50	3750 mg/kg	Oral	Rat
	LD50	1901 mg/kg	Oral	Rabbit

Acute Effects

Eyes : Slightly irritating to the eyes.

Skin : Slightly irritating to the skin.

Inhalation : Slightly irritating to the respiratory system.

Ingestion : No known significant effects or critical hazards.

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.

Target organs : Contains material which may cause damage to the following organs: mucous membranes.

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12 . Ecological information

Ecotoxicity data

Product/ingredient name	Species	Period	Result
Potassium nitrate	Poecilia reticulata (LC50)	96 hour(s)	180 mg/l
	Poecilia reticulata (LC50)	96 hour(s)	188 mg/l
	Poecilia reticulata (LC50)	96 hour(s)	191 mg/l
	Poecilia reticulata (LC50)	96 hour(s)	200 mg/l

Environmental precautions : No known significant effects or critical hazards.

Octanol/water partition coefficient : The product is more soluble in water.

Bioconcentration factor : Not available.

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

Toxicity of the products of biodegradation : The product itself and its products of degradation are not toxic.

13 . Disposal considerations

Waste disposal : Waste must be disposed of in accordance with EC, national, regional and local environmental control regulations.

14 . Transport information

NAERG : Not applicable.

Regulatory information

UN/ IMDG/ IATA DOT : Not regulated.

15 . Regulatory information

United States

HCS Classification : Not regulated.

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: Potassium nitrate
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Potassium nitrate: Fire hazard, Delayed (chronic) health hazard

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 :	Potassium nitrate	7757-79-1	5 - 10
Supplier notification :	Potassium nitrate	7757-79-1	5 - 10

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: Potassium nitrate: (generic environmental hazard)
Massachusetts RTK: Potassium nitrate
New Jersey: Potassium nitrate

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California prop. 65: No products were found.

International regulations

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.) : CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: MUCOUS MEMBRANES.

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

HMIS RATING

Health	0
Fire hazard	0
Physical Hazard	0
Personal protection	A

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.

Date of issue : 09/12/2011
Date of previous issue : 06/30/2006
Date of previous issue : 07/15/2004
Version : 3

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.

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