

Material Safety Data Sheet

Rockwool Formula One Part A

Section 1. Chemical product and company identification

Common name	: Rockwool Formula One Part A
Material uses	: Hydroponic nutrients.
Supplier	: Bloomington Wholesale Garden Supply Company, 7854 N. State Road 37, Bloomington, IN 47404 Tel: 1-800-316-1306 Fax: 1-800-316-1264
Manufacturer	: Technaflora Plant Products Ltd. 1533 Broadway Street, 125, Port Coquitlam, B.C. Canada, V3C 6P3 Tel. 604-468-4769 / 1-800-588-1211
In case of emergency	: CHEMTREC, U.S. : (800) 424-9300 International: (703) 527-3887

Section 2. Hazards identification

Physical state	: Liquid.
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	: Moderately irritating to the eyes.
Skin	: Moderately irritating to the skin.
Inhalation	: Moderately 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 overexposure	: Repeated or prolonged exposure is not known to aggravate medical condition.

See toxicological information (section 11)

Section 3. Composition, Information on Ingredients

	CAS number	% by weight
United States		
Calcium nitrate	13477-34-4	15 - 30
Potassium nitrate	7757-79-1	3 - 5

This material is classified as not hazardous under OSHA regulations.
See Chapters 8, 11 and 14 for details.

Section 4. First aid measures

Eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin contact	: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately.
Inhalation	: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	: Do not induce vomiting unless directed to do so by medical personnel. 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.

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Section 5. Fire fighting measures

Flammability of the product : Non-flammable.

Fire fighting media and instructions : Use an extinguishing agent suitable for surrounding fires.

This material increases the risk of fire and may aid combustion. May cause fire.

Special protective equipment for fire-fighters : Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facemask operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Do not touch or walk through spilled material.

Environmental precautions : Avoid dispersal of spilled material and 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) and use a non-sparking or explosion proof means to transfer material to a sealed, appropriate 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.

Section 7. Handling and storage

Handling : Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Store in tightly closed container. Avoid contact with combustible materials. Wash thoroughly after handling.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalis, reducing agents and combustibles.

Section 8. Exposure Controls, Personal Protection

Engineering controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Personal protection

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
Recommended: Safety glasses.



Respiratory Hands : Not applicable.
: Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
>8 hour(s) (breakthrough time): Disposable vinyl.



Skin/Body : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Body: Recommended: Lab coat.



Personal protection in case of a large spill : Safety glasses, goggles or face shield. Impervious gloves.

Product name : **Exposure limits**

Consult local authorities for acceptable exposure limits.

Section 9. Physical and chemical properties

Physical state	: Liquid.
pH	: Basic.
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.
Specific gravity	: Weighted average: 1.14 (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).
LogK _{ow}	: The product is more soluble in water.
Ionicity (in water)	: Amphoteric. (Potassium nitrate).
Dispersion properties	: See solubility in water, methanol, acetone.
Solubility	: Easily soluble in methanol, acetone. Partially soluble in cold water, hot water. Insoluble in n-octanol.

Section 10. Stability and reactivity

Stability and reactivity	: The product is stable.
Incompatibility with various substances	: Slightly reactive to reactive with reducing agents, combustible materials, organic materials, acids.
Hazardous polymerization	: Will not occur.

Section 11. Toxicological information

Toxicity data

Ingredient name	Test	Result	Route	Species
Calcium nitrate	LD50	3900 mg/kg	Oral	Rat
Potassium nitrate	LD50	3750 mg/kg	Oral	Rat
	LD50	1901 mg/kg	Oral	Rabbit

Acute Effects

Eyes	: Moderately irritating to the eyes.
Skin	: Moderately irritating to the skin.
Inhalation	: Moderately 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	:

Section 12. Ecological information

Ecotoxicity data

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

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

Section 13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and 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 local authority requirements.

Consult your local or regional authorities.

Section 14. Transport information

Classification

DOT/IMDG/IATA : Not regulated.

Label

Additional information

Section 15. Regulatory information

United States

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: Calcium nitrate; Potassium nitrate
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Calcium nitrate: Fire hazard, Immediate (Acute) Health Hazard; 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	Calcium nitrate	13477-34-4	15 - 30
Supplier notification	Potassium nitrate	7757-79-1	3 - 5
	Calcium nitrate	13477-34-4	15 - 30
	Potassium nitrate	7757-79-1	3 - 5

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
California prop. 65: No products were found.

**International regulations
International lists**

: Australia (NICNAS): Water; Calcium nitrate; Potassium nitrate

China: Water; Calcium nitrate; Potassium nitrate

Germany water class: Potassium nitrate

Japan (METI): Water; Calcium nitrate; Potassium nitrate

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Korea (TCCL): Water; Potassium nitrate

Philippines (RA6969): Water; Calcium nitrate; Potassium nitrate

Section 16. Other information

Label Requirements : USE WITH CARE.

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

Health	1
Fire hazard	0
Reactivity	1
Personal protection	C

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



References :

ANSI Z400.1, MSDS Standard, 2001. -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.