

MATERIAL SAFETY DATA SHEET – 16 Sections

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Supermarket Brand Gro Aqua 11-6-16		[WHMIS Classification] Class C - Oxidizer	
Product Use Water soluble plant fertilizer			
Manufacturer's Name Rapidgrow Industries Inc.		Supplier's Name Same as manufacturer.	
Street Address 20203 113B Ave.		Street Address	
City Maple Ridge	Province BC	City	Province
Postal Code V2X 0Z1	Emergency Telephone 604 465 1344/604 868 1698	Postal Code	Emergency Telephone
Date MSDS Prepared 2012-10-12	MSDS Prepared By Brian Franczuz	Phone Number 604 868 1698	

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients (<i>specific</i>)	%	CAS Number	LD ₅₀ of Ingredient (<i>specify species and route</i>)	LC ₅₀ of Ingredient (<i>specify species</i>)
Potassium Nitrate	21	7757-79-1	Rat Oral, Rabbit Ora	3750 mg/kg Rat 1901 mg/kg Rabbit
Calcium Nitrate	40	10124 - 37 - 5	Rat Oral / Rabbit, Irritation eye	3900mg/kg Rat 500mg/kg severe
Manganese Sulfate	0.03	10034-96-5	ND	
Zinc Sulfate	0.075	7446-19-7	Mouse/Oral	2200mg/kg Mouse
Copper Sulfate	0.025	7758-99-8	Rat/Oral	300mg/kg Rat
Nitritotricetic Acid	0.075	5064-31-3	Rat/Oral	1658 mg/kg Rat

SECTION 3 – HAZARDS IDENTIFICATION

Route of Entry	<input checked="" type="checkbox"/> Skin Contact	<input type="checkbox"/> Skin Absorption	<input checked="" type="checkbox"/> Eye Contact	<input checked="" type="checkbox"/> Inhalation	<input checked="" type="checkbox"/> Ingestion
[Emergency Overview] Skin contact - Irritation could occur with prolonged exposure to dry fertilizer or solution. Eye Contact - Irritation could occur if dry fertilizer or solution contacts eyes. Inhalation - very low vapour activity, could produce noxious fumes and respiratory tract irritation if heated. Ingestion - excessive ingestion may result in health hazard. Effects may include nausea, vomiting, diarrhea, weakness or convulsions.					
[Potential Health Effects]					

SECTION 4 – FIRST AID MEASURES

Skin Contact Remove contaminated clothing. Flush affected area with water for 15 minutes. Wash affected area with mild soap and water. Get medical attention if irritation develops or persists.
Eye Contact Immediately flush eyes with plenty of water. Remove any contact lenses (if easy to do) and continue flushing for 15 minutes. Get medical attention if irritation develops or persists.
Inhalation Remove person to fresh air. Seek medical attention immediately if breathing becomes difficult.
Ingestion Immediately rinse mouth out with plenty of water. If within 30 minutes after ingestion, give person a small glass of water or milk. NEVER give anything by mouth to an unconscious person. Do not induce vomiting unless instructed to do so by a physician or poison center. Seek medical attention immediately.

SAMPLE FORMAT PROVIDED BY THE WORKERS' COMPENSATION BOARD OF BRITISH COLUMBIA

SECTION 5 – FIRE FIGHTING MEASURES

Flammable <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, under which conditions?	
Means of Extinction	Use flooding quantities of water. Do not use water jet. Wear SCBA and full protective clothing. This material is an oxidizer and therefore increases the intensity of any fire or combustible substance	
Flashpoint (°C) and Method NA	Upper Flammable Limit (% by volume) NA	Lower Flammable Limit (% by volume) NA
Autoignition Temperature (°C) ND	Explosion Data – Sensitivity to Impact	Explosion Data – Sensitivity to Static Discharge
Hazardous Combustion Products Nitrates, nitrites, ammonia, carbon monoxide, sulfur oxides.		
[NFPA]		

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures
Contain the spill. Avoid contact with combustibles, organics and ignition sources. Sweep up spilled material and use or dispose of in an approved manner. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment
Avoid direct and prolonged contact with skin.
Storage Requirements
Store in cool, dry area in closed container or package. Keep containers closed at all times. Do not reuse containers.
Store away from incompatible materials. Use with proper personal protective equipment. Keep out of reach of children.

SECTION 8 – EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits	<input type="checkbox"/> ACGIH TLV	<input type="checkbox"/> OSHA PEL	<input type="checkbox"/> Other (specify)
Specific Engineering Controls (such as ventilation, enclosed process)	Ventilate to control dust.		
Personal Protective Equipment	<input checked="" type="checkbox"/> Gloves	<input checked="" type="checkbox"/> Respirator	<input checked="" type="checkbox"/> Eye
	<input type="checkbox"/> Footwear	<input type="checkbox"/> Clothing	<input type="checkbox"/> Other
If checked, please specify type	Respiratory - Dust mask if conditions warrant.		
	Eyes - Wear safety glasses to avoid eye contact. Do not wear contact lenses.		
	Skin - Wear impermeable gloves to avoid skin contact.		

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State Solid	Odour and Appearance white, yellowish powder	Odour Threshold (ppm) NA
Specific Gravity NA	Vapour Density (air = 1) ND	Vapour Pressure (mmHg) ND
Evaporation Rate ND	Boiling Point (°C) NA	Freezing Point (°C) NA
pH ND	Coefficient of Water/Oil Distribution	[Solubility in Water]

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If no, under which conditions? Exposure to heat may result in build up of dangerous pressures.
Incompatibility with Other Substances <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Strong oxidizer, reacts violently upon contact of many organic substances, particularly textile and paper.
Strong acids, strong alkalies, oxidizers, organics.	
Reactivity, and under what conditions? Moist, wet conditions, Fire.	
Hazardous Decomposition Products Ammonia, oxides of nitrogen	
Avoid heat, flame, ignition sources, shock and incompatibles.	

SECTION 11 – TOXICOLOGICAL INFORMATION

Effects of Acute Exposure	
Skin Contact - Irritation could occur with prolonged exposure to dry fertilizer or fertilizer solution.	
Skin Absorption - Not known to be absorbed through the skin.	
Eye Contact - Irritation could occur if fertilizer solution is splashed in eyes or dry product contacts eyes.	
Inhalation - Very low vapour activity. If heated could release noxious fumes, can cause respiratory tract irritation.	
Ingestion - Excessive ingestion must occur before any health hazard results, effects of overexposure may include nausea, vomiting,	
Effects of Chronic Exposure diarrhea, weakness or convulsions.	
Nitritotriacetic Acid and its salts were determined to be "possibly carcinogenic to humans" by IARC a compound which "may reasonably be anticipated to be a carcinogen" By NTP and a "select Carcinogen" by OSHA. Boric Acid may cause birth defects and may impair male fertility, based on animal data. Calcium Nitrate (10124-37-5) NTP Carcinogen no known, anticipated. IARC Category, none.	
Oral Rat LD50: 3900 mg/kg. Irritation eye Rabbit 500mg/L 24H severe.	
Irritancy of Product May cause minor irritation	
Skin Sensitization May cause minor irritation	Respiratory Sensitization Very low, if heated could cause irritation
Carcinogenicity – IARC None known.	Carcinogenicity – ACGIH None known.
Reproductive Toxicity None known.	Teratogenicity None known.
Embryotoxicity None known.	Mutagenicity None known.
Name of Synergistic Products/Effects ND	

SECTION 12 – ECOLOGICAL INFORMATION

[Aquatic Toxicity] Prevent entry into waterways, sewers, basements or confined areas.
The LC50/96-hour values for fish are over 100mg/l.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Dispose of in non-crop areas away from waterways, in accordance with federal, provincial and local regulations.

SECTION 14 – TRANSPORT INFORMATION

Special Shipping Information	Placard 5.1 oxidizer Packing Group III	
Calcium nitrate mixture. UN#1454, Potassium Nitrate mixture. UN# 1486	PIN	
TDG	[DOT] Domestic Land	
[IMO]	[ICAO]	

SECTION 15 – REGULATORY INFORMATION

[WHMIS Classification] Class C oxidizer	[OSHA]
[SERA] 311/312	[TSCA] 12(b)
<i>This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.</i>	

SECTION 16 – OTHER INFORMATION

NA = Not Applicable.
ND = Not Determined.