

1. Product and Company Identification

Product identifier	ProAcqua™ Flex
Other means of identification	ProAcqua Multiuse
Synonyms	Proprietary blend of plant nutrients
Recommended use	Source of plant nutrients for food and non-food crops
Recommended restrictions	None known.
Manufacturer information	Compass Minerals USA Inc. 9900 West 109th Street, Suite 100 Overland Park, KS 66210 US Phone (913) 344-9200
Supplier	Compass Minerals Manitoba Inc. 6700 Century Avenue Mississauga L5N 6A4 CA http://www.compassminerals.com/ Phone (905) 567-0231 techservicesrequests @compassminerals.com
CHEMTREC	1-800-424-9300
CANUTEC	1-613-996-6666

2. Hazards Identification

Physical hazards	Oxidizing solids	Category 3
Health hazards	Acute toxicity, inhalation	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Reproductive toxicity	Category 1B
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.	
WHMIS 2015 defined hazards	Not classified	
Label elements		



Signal word	Danger
Hazard statement	May intensify fire; oxidizer. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May damage fertility or the unborn child. May cause respiratory irritation.

Precautionary statement	
Prevention	Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing and other combustible materials. Avoid breathing dust. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response	In case of fire: Use appropriate media to extinguish. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Specific treatment (see information on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF exposed or concerned: Get medical advice/attention.

Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)	None known
WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)	None known
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Inorganic acid		HMIRA 11548	HMIRA 11548
Metal amine chelate		HMIRA 11548	HMIRA 11548
Nitrate salt #1		HMIRA 11548	HMIRA 11548
Nitrate salt #2		HMIRA 11548	HMIRA 11548

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments The filing date associated with this trade secret exemption is 2017-05-26

4. First Aid Measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
Skin contact	IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Specific treatment (see information on this label). Take off contaminated clothing and wash it before reuse.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse mouth. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. Contact with combustible material may cause fire. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Greatly increases the burning rate of combustible materials. Containers may explode when heated. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
General fire hazards	May intensify fire; oxidizer. Contact with combustible material may cause fire.
Hazardous combustion products	May include and are not limited to: Oxides of phosphorus. Ammonia.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep away from clothing and other combustible materials. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of dust. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Ventilate the contaminated area. Use broom or dry vacuum to collect material for proper disposal without raising dust. Rinse area with water. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. For waste disposal, see section 13 of the SDS.
Environmental precautions	Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling	Do not handle until all safety precautions have been read and understood. Take any precaution to avoid mixing with combustibles. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment. Avoid breathing dust. Provide adequate ventilation. Pregnant or breastfeeding women must not handle this product. Observe good industrial hygiene practices. Wash thoroughly after handling. When using do not eat or drink.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store in a well-ventilated place. Do not store near combustible materials. Keep away from heat. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children. Store locked up.

8. Exposure Controls/Personal Protection

Occupational exposure limits

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Inorganic acid (CAS HMIRA 11548)	STEL	6 mg/m3	Inhalable
	TWA	2 mg/m3	Inhalable

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Inorganic acid (CAS HMIRA 11548)	STEL	6 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.
Metal amine chelate (CAS HMIRA 11548)	TWA	1 mg/m3	Dust and mist.
		0.2 mg/m3	Fume.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Inorganic acid (CAS HMIRA 11548)	STEL	6 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Inorganic acid (CAS HMIRA 11548)	STEL	6 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.
Metal amine chelate (CAS HMIRA 11548)	TWA	1 mg/m3	Dust and mist.
		0.2 mg/m3	Fume.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Metal amine chelate (CAS HMIRA 11548)	TWA	1 mg/m3	Dust and mist.
Biological limit values	No biological exposure limits noted for the ingredient(s).		
Appropriate engineering controls	Ensure adequate ventilation.		
Individual protection measures, such as personal protective equipment			
Eye/face protection	Safety glasses or goggles.		
Skin protection			
Hand protection	Wear suitable gloves. Confirm with a reputable supplier first.		
Other	As required by employer code.		
Respiratory protection	Wear dust mask.		
Thermal hazards	Not applicable.		
General hygiene considerations	Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. When using do not eat or drink.		

9. Physical and Chemical Properties

Appearance	Powder
Physical state	Solid.
Form	Solid.
Color	Yellow
Odor	Not available.
Odor threshold	Not available.
pH	4.3
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	680 g/l
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	1100 g/cm ³
Explosive properties	Not explosive.
Oxidizing properties	May intensify fire; oxidizer.

10. Stability and Reactivity

Reactivity	May react with incompatible materials.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Heat. Do not mix with other chemicals.
Incompatible materials	Combustible material. Reducing agents.
Hazardous decomposition products	May include and are not limited to: Ammonia. Oxides of phosphorus.

11. Toxicological Information

Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Information on likely routes of exposure	
Ingestion	May cause stomach distress, nausea or vomiting.
Inhalation	Harmful if inhaled.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Harmful if inhaled. May cause respiratory irritation.

Components	Species	Test Results
Inorganic acid (CAS HMIRA 11548)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg, HSDB > 2000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	> 2.1 mg/L, 4 Hours, ECHA > 2 mg/L, 5 Hours, ECHA > 0.2 mg/L, 4 Hours
<i>Oral</i>		
LD50	Chicken	2950 mg/kg, HSDB 3 g/kg
	Dog	2000 mg/kg, HSDB
	Mouse	3450 mg/kg
	Rat	> 2600 mg/kg 4080 mg/kg, ECHA, female 3450 mg/kg, ECHA, male
Metal amine chelate (CAS HMIRA 11548)		
Acute		
<i>Dermal</i>		
LD50	Not available	
	Rat	> 2000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	> 5.3 mg/L, 4 Hours 5.3 mg/l/4h, ECHA
<i>Oral</i>		
LD50	Mouse	830 - 1000 mg/kg, ECHA
	Rat	830 mg/kg
Nitrate salt #1 (CAS HMIRA 11548)		

Components	Species	Test Results
Acute		
<i>Dermal</i>		
LD50	Rabbit	7940 mg/kg
	Rat	> 5000 mg/kg, ECHA > 5000 mg/kg, 24 Hours
<i>Oral</i>		
LD50	Mouse	2085 mg/kg, ECHA
	Rat	4500 mg/kg, HSDB 2950 mg/kg 2800 mg/kg, HSDB 2217 mg/kg, Sigma Aldrich
Nitrate salt #2 (CAS HMIRA 11548)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg, ECHA > 5000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rat	> 0.5 mg/l/4h, ECHA > 0.5 mg/L, 4 Hours
<i>Oral</i>		
LD50	Rabbit	1901 mg/kg, ECHA 1166 mg/kg, HSDB
	Rat	> 2000 mg/kg 3750 mg/kg, ECHA
Skin corrosion/irritation	Causes skin irritation.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	Not available.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	See below.	
Canada - Manitoba OELs: carcinogenicity		
BORATE COMPOUNDS, INORGANIC, INHALABLE FRACTION (CAS HMIRA 11548)	Not classifiable as a human carcinogen.	
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Not listed.		
Reproductive toxicity	May damage fertility or the unborn child.	
Teratogenicity	Not available.	
Specific target organ toxicity - single exposure	May cause respiratory irritation.	
Specific target organ toxicity - repeated exposure	Not classified.	

Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological Information

Ecotoxicity See below

Ecotoxicological data

Components	Species	Test Results
Inorganic acid (CAS HMIRA 11548)		
Crustacea	EC50 Daphnia	134 mg/L, 48 Hours
Aquatic		
Fish	LC50 Razorback sucker (<i>Xyrauchen texanus</i>)	> 100 mg/L, 96 hours
	Channel catfish (<i>Ictalurus punctatus</i>)	838 mg/L, 96 hours
	Western mosquitofish (<i>Gambusia affinis</i>)	22.5 mg/L, 96 hours
Persistence and degradability	No data is available on the degradability of this product.	
Bioaccumulative potential	No data available.	
Mobility in soil	No data available.	
Mobility in general	Not available.	
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, global warming potential) are expected from this component.	

13. Disposal Considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

Transport of Dangerous Goods (TDG) Proof of Classification	In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue.
General	<p>IMDG:</p> <p>Special Provisions: 223, 274, 900</p> <p>Limited and Excepted Quantity Provisions: Limited Quantities: 5 kg</p> <p>Limited and Excepted Quantity Provisions: Excepted Quantities: E1</p> <p>Packing: Instructions: P002, LP02</p> <p>IBC: Instructions: IBC08</p> <p>IBC: Provisions: B3</p> <p>IATA:</p> <p>Passenger and Cargo Aircraft: Limited Quantity: Pkg Inst: Y546</p> <p>Passenger and Cargo Aircraft: Limited Quantity: Max Net Qty/Pkg: 10 kg</p> <p>Passenger and Cargo Aircraft: Pkg Inst: 559</p> <p>Passenger and Cargo Aircraft: Max Net/Qty Pkg: 25 kg</p> <p>Cargo Aircraft Only: Pkg Inst: 563</p> <p>Cargo Aircraft Only: Max Net Qty/Pkg: 100 kg</p>

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number	UN1479
Proper shipping name	Oxidizing solid, n.o.s.
Hazard class	5.1
Packing group	III
Special provisions	62, 148, IB8, IP3, T1, TP33
Packaging exceptions	152
Packaging non bulk	213
Packaging bulk	240

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN1479
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Proper shipping name OXIDIZING SOLID, N.O.S.
Hazard class 5.1
Packing group III
Special provisions 16, 68

IATA/ICAO (Air)

Basic shipping requirements:

UN number UN1479
Proper shipping name Oxidizing solid, n.o.s.
Hazard class 5.1
Packing group III
ERG code 5L

IMDG (Marine Transport)

Basic shipping requirements:

UN number UN1479
Proper shipping name OXIDIZING SOLID, N.O.S.
Hazard class 5.1
Packing group III

DOT



IATA; IMDG; TDG



15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS 2015 Exemptions Controlled

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Metal amine chelate (CAS HMIRA 11548) Listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - Yes

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Nitrate salt #1	HMIRA 11548	HMIRA 11548

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

US state regulations See below

US - California Hazardous Substances (Director's): Listed substance

Metal amine chelate (CAS HMIRA 11548) Listed.

US - Illinois Chemical Safety Act: Listed substance

Metal amine chelate (CAS HMIRA 11548)

US - Louisiana Spill Reporting: Listed substance

Metal amine chelate (CAS HMIRA 11548) Listed.

US - Michigan Critical Materials Register: Parameter number

Metal amine chelate (CAS HMIRA 11548) COPPER

US - New Jersey RTK - Substances: Listed substance

Inorganic acid (CAS HMIRA 11548)
Metal amine chelate (CAS HMIRA 11548)
Nitrate salt #1 (CAS HMIRA 11548)
Nitrate salt #2 (CAS HMIRA 11548)

US - Texas Effects Screening Levels: Listed substance

Inorganic acid (CAS HMIRA 11548) Listed.
Nitrate salt #1 (CAS HMIRA 11548) Listed.
Nitrate salt #2 (CAS HMIRA 11548) Listed.

US. Massachusetts RTK - Substance List

Nitrate salt #1 (CAS HMIRA 11548)
Nitrate salt #2 (CAS HMIRA 11548)

US. New Jersey Worker and Community Right-to-Know Act

Metal amine chelate (CAS HMIRA 11548)
Nitrate salt #1 (CAS HMIRA 11548)
Nitrate salt #2 (CAS HMIRA 11548)

US. Pennsylvania Worker and Community Right-to-Know Law

Metal amine chelate (CAS HMIRA 11548)
Nitrate salt #1 (CAS HMIRA 11548)
Nitrate salt #2 (CAS HMIRA 11548)

US. Rhode Island RTK

Nitrate salt #1 (CAS HMIRA 11548)
Nitrate salt #2 (CAS HMIRA 11548)

US. California Proposition 65

Not Listed.

Inventory status

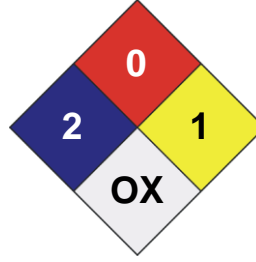
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	*	2
FLAMMABILITY		0
PHYSICAL HAZARD		1
PERSONAL PROTECTION		X



Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Version

01

Effective date

17-October-2017

Prepared by

Dell Tech Laboratories, Ltd. Phone: (519) 858-5021

Other information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.