## SAFETY DATA SHEET



## 1. Product and Company Identification

Product identifier	ProAcqua™ K-Micro
Other means of identification	Profol K-Micro
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

2. Hazards Identification			
Physical hazards	Not classified.		
Health hazards	Serious eye damage/eye irritation	Category 1	
	Reproductive toxicity	Category 1B	
	Specific target organ toxicity, repeated exposure	Category 2	
Environmental hazards	Not classified.		
WHMIS 2015 defined hazards	Not classified		
Label elements			
Signal word	Danger		
Hazard statement	Causes serious eye damage. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.		
Precautionary statement			
Prevention	Obtain special instructions before use. Do not handle until all safety precautions h Do not breathe dust/fume. Wash thoroughly after handling. Wear protective gloves/protective clothing.		
Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. IF exposed or concerned: Get medical advice/attention.		
Storage	Store locked up.		
Disposal	Dispose of contents/container in accordance	ce 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.		

## 3. Composition/Information on Ingredients

Mixture
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Chemical name	Common name and synonyms	CAS number	%
Boric acid salt		HMIRA 11552	HMIRA 11552
Metal amine chelate		HMIRA 11552	HMIRA 11552
Metal salt #1		HMIRA 11552	HMIRA 11552
Metal salt #2		HMIRA 11552	HMIRA 11552
Metal salt #3		HMIRA 11552	HMIRA 11552
Organic acid		HMIRA 11552	HMIRA 11552

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 symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.			
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.			
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.			
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. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.			
Indication of immediate medical attention and special treatment needed	Symptoms may be delayed.			
General information	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. 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 (CO2).			
Unsuitable extinguishing media	Not available.			
Specific hazards arising from the chemical	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	Use water spray to cool unopened containers.			
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.			
General fire hazards	No unusual fire or explosion hazards noted.			
Hazardous combustion products	May include and are not limited to: Ammonia.			
	6. Accidental Release Measures			
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. 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	Before attempting clean up, refer to hazard data given above. 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	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment. Avoid prolonged exposure. Observe good industrial hygiene practices. Wash thoroughly after handling. When using do not eat or drink.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.

## 8. Exposure Controls/Personal Protection

#### **Occupational exposure limits**

Components	Туре	Value	
Boric acid salt (CAS HMIRA 11552)	STEL	3 ppm	
	TWA	1 mg/m3	
Metal salt #1 (CAS HMIRA 11552)	TWA	0.2 mg/m3	

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

Components	Туре	Value
Metal salt #1 (CAS HMIRA 11552)	TWA	0.2 mg/m3

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

Components	Туре	Value	Form
Boric acid salt (CAS HMIRA 11552)	STEL	6 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.
Metal amine chelate (CAS HMIRA 11552)	TWA	1 mg/m3	Dust and mist.
,		0.2 mg/m3	Fume.
Metal salt #1 (CAS HMIRA 11552)	TWA	0.1 mg/m3	Inhalable fraction.
,		0.02 mg/m3	Respirable fraction.

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

Components	Туре	Value	Form
Boric acid salt (CAS HMIRA 11552)	STEL	6 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.
Metal salt #1 (CAS HMIRA 11552)	TWA	0.2 mg/m3	

#### Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Туре	Value	Form
Metal salt #1 (CAS HMIRA 11552)	TWA	5 mg/m3	Dust.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Туре	Value	
Metal salt #1 (CAS HMIRA 11552)	Ceiling	5 mg/m3	
US. ACGIH Threshold Limit Values Components	Туре	Value	Form
Boric acid salt (CAS HMIRA 11552)	STEL	6 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.

Components	Туре	Value	Form
Metal amine chelate (CAS HMIRA 11552)	TWA	1 mg/m3	Dust and mist.
,		0.2 mg/m3	Fume.
Metal salt #1 (CAS HMIRA 11552)	TWA	0.1 mg/m3	Inhalable fraction.
,		0.02 mg/m3	Respirable fraction.
US. NIOSH: Pocket Guide to	o Chemical Hazards		
Components	Туре	Value	Form
Metal amine chelate (CAS HMIRA 11552)	TWA	1 mg/m3	Dust and mist.
Metal salt #1 (CAS HMIRA 11552)	STEL	3 mg/m3	Fume.
	TWA	1 mg/m3	Fume.
logical limit values	No biological exposure limits noted for th	e ingredient(s).	
propriate engineering htrols	Ensure adequate ventilation.		
ividual protection measures,	, such as personal protective equipment		
Eye/face protection	Wear chemical goggles.		
Skin protection			
Hand protection	Wear suitable gloves.		
Other	As required by employer code.		
Respiratory protection	Wear dust mask.		
Thermal hazards	Not applicable.		
neral hygiene hsiderations	Handle in accordance with good industrial hygiene and safety practice. Wash hands before brea and immediately after handling the product. When using, do not eat, drink or smoke.		

9. Physical and Chemical Properties		
Appearance	Powder	
Physical state	Solid.	
Form	Solid.	
Color	Blue	
Odor	Not available.	
Odor threshold	Not available.	
рН	3.1 (10% solution)	
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 exp	losive 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)	250 g/l	

, tearing, redness, swelling, and blurred buld result.
Test Results
> 2000 mg/kg, ECHA
> 2000 mg/kg
> 2000 mg/kg, 24 Hours
> 2 mg/l/4h, ECHA
> 2 mg/L, 5 Hours
> 2 mg/L, 4 Hours
> ∠ mg/∟, 4 ⊓ours
> 2 mg/L, 4 Hours 2000 mg/kg
-
2000 mg/kg
2000 mg/kg 5300 mg/kg
2000 mg/kg 5300 mg/kg 3450 mg/kg
2000 mg/kg 5300 mg/kg 3450 mg/kg > 250 mg/kg
2000 mg/kg 5300 mg/kg 3450 mg/kg > 250 mg/kg 5560 mg/kg, ECHA
2000 mg/kg 5300 mg/kg 3450 mg/kg > 250 mg/kg 5560 mg/kg, ECHA
2000 mg/kg 5300 mg/kg 3450 mg/kg > 250 mg/kg 5560 mg/kg, ECHA
2000 mg/kg 5300 mg/kg 3450 mg/kg > 250 mg/kg 5560 mg/kg, ECHA

Components	Species	Test Results
Inhalation		
LC50	Rat	> 5.3 mg/L, 4 Hours
		5.3 mg/l/4h, ECHA
Oral		
LD50	Mouse	830 - 1000 mg/kg, ECHA
	Rat	830 mg/kg
Metal salt #1 (CAS HMIRA 11552)	)	
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
	Rat	> 4.5 mg/L, 4 Hours
Oral		
LD100	Mouse	305 mg/kg
LD50	Mouse	2330 mg/kg
	Rat	1470 mg/kg
Metal salt #2 (CAS HMIRA 11552)		
Acute	,	
Dermal		
LD50	Not available	
Oral		
LD50	Goat; Guinea pig; Rat; Sheep	2600 mg/kg
	Guinea pig	2500 mg/kg
	Mouse	1500 mg/kg
	Modoo	
		383 mg/kg
	Rat	3020 mg/kg
		2600 mg/kg
Metal salt #3 (CAS HMIRA 11552)	)	
Acute		
Dermal		0000 // 0411
LD50	Rabbit	> 2000 mg/kg, 24 Hours
	Rat	> 2000 mg/kg
Oral		
LD50	Mouse	926 mg/kg
		57 mg/kg
	Rat	623 mg/kg
Organic acid (CAS HMIRA 11552)	)	
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours, ECHA
Inhalation		
LC50	Not available	
Oral		
LD50	Mouse	5400 mg/kg, ECHA
		5040 mg/kg, HSDB
	Rat	11700 mg/kg, ECHA
		6730 mg/kg, HSDB
Skin opropion/insidation	Brolongod skin contact may cause skin irritetion	· · · · · · · · · · · · · · · · · · ·
Skin corrosion/irritation	Prolonged skin contact may cause skin irritation.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	

Serious eye damage/eye irritation	Causes serious eye damage.		
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			
Canada - Alberta OELs: Irrita	ant		
Boric acid salt (CAS HMIF	RA 11552)	Irritant	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.		
Skin sensitization	This product is not expected to cause skin sensitization.		
Mutagenicity	No data available to indicate p mutagenic or genotoxic.	roduct or any components present at greater than 0.1% are	
Carcinogenicity	See below.		
Canada - Manitoba OELs: ca	rcinogenicity		
FRACTION (CAS HMIRA MANGANESE ELEMENT COMPOUNDS, AS MN, II HMIRA 11552)	,	Not classifiable as a human carcinogen. Not classifiable as a human carcinogen.	
Not listed.	,		
Reproductive toxicity	May damage fertility or the unl	born child.	
Teratogenicity	Not available.		
Specific target organ toxicity - single exposure	Not classified.		
Specific target organ toxicity - repeated exposure	May cause damage to organs	through prolonged or repeated exposure.	
Aspiration hazard	Not an aspiration hazard.		
Chronic effects	Prolonged inhalation may be h	narmful.	
	10 Ecologia		

## 12. Ecological Information

Ecotoxicity	See below		
Ecotoxicological data Components		Species	Test Results
Metal amine chelate (CAS HMIR)	A 11552)		
Aquatic			
Fish	LC50	Channel catfish (Ictalurus punctatus)	838 mg/L, 96 hours
Crustacea	EC50	Water flea (Daphnia magna)	7.09 - 9.36 mg/L, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	24.3 - 38.9 mg/L, 96 hours
Algae	IC50	Algae	2500 mg/L, 72 Hours
Crustacea	EC50	Daphnia	825 mg/L, 48 Hours
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	83 mg/L, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	435 mg/L, 96 hours
Crustacea	EC50	Rotifer (Philodina acuticornis)	0.3 mg/L, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.162 mg/L, 96 hours
Acute			
Crustacea	EC50	Daphnia magna	120 mg/L, 72 hr
Aquatic Acute			
Fish	LC50	Bluegill (Lepomis macrochirus)	1516 mg/L, 96 hr
Persistence and degradability	No data is ava	ailable on the degradability of this product.	

Bioaccumulative potential		
Mobility in soil		
No data available.		
Other adverse effects	Not available.	
	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation	
	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	IMDG: Special Provisions: 274, 335, 966, 967, 969	
	Limited and Excepted Quantity Provisions: Limited Quantities: 5 kg	
	Limited and Excepted Quantity Provisions: Excepted Quantities: E1	
	Packing: Instructions: P002, LP02 IBC: Instructions: IBC08	
	IBC: Provisions: B3	
	IATA: Passenger and Cargo Aircraft: Limited Quantity: Pkg Inst: Y956 Passenger and Cargo Aircraft: Limited Quantity: Max Net Qty/Pkg: 30kg G	
	Passenger and Cargo Aircraft: Pkg Inst: 956	
	Passenger and Cargo Aircraft: Max Net/Qty Pkg: 400kg	
	Cargo Aircraft Only: Pkg Inst: 956	
U.S. Department of Transportatio	Cargo Aircraft Only: Max Net Qty/Pkg: 400kg	
Basic shipping requirements		
UN number	UN3077	
Proper shipping name	Environmentally hazardous substance, solid, n.o.s	
Technical name	Zinc sulfate, monohydrate	
Hazard class	9	
Packing group	III	
Special provisions	8, 146, 335, 384, A112, B54, B120, IB8, IP3, N20, N91, T1, TP33	
Transportation of Dangerous Goo		
Basic shipping requirements		
UN number		
Proper shipping name Technical name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. Zinc sulfate, monohydrate	
Hazard class	9	
Packing group		
Special provisions	16, 99	
IATA/ICAO (Air)		
Basic shipping requirements	s:	
UN number	UN3077	
Proper shipping name	Environmentally hazadous substance, solid, n.o.s.	
Technical name Hazard class	Zinc sulfate, monohydrate 9	
Packing group	9 III	
IMDG (Marine Transport)		
Basic shipping requirements	::	
UN number	UN3077	
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	
	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. Zinc sulfate, monohydrate	
Proper shipping name		



## 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.

Canada CEPA Schedule I: L	isted substance		
Metal salt #3 (CAS HMIR		Listed.	
Canada Priority Substances	s List (Second List): Listed s	ubstance	
Metal salt #2 (CAS HMIR		Listed.	
Metal salt #3 (CAS HMIR		Listed.	
Export Control List (CEPA 1	1999, Schedule 3)		
Not listed.			
Greenhouse Gases			
Not listed.			
Precursor Control Regulation	ons		
Not regulated.			
WHMIS 2015 Exemptions	Controlled		
US federal regulations	This product is a "Hazardou Standard, 29 CFR 1910.120		ed by the OSHA Hazard Communication
TSCA Section 12(b) Export	Notification (40 CFR 707, Su	bpt. D)	
Not regulated.			
CERCLA Hazardous Substa	ance List (40 CFR 302.4)		
Metal amine chelate (CA	S HMIRA 11552)	Listed.	
Metal salt #1 (CAS HMIR	RA 11552)	Listed.	
US. OSHA Specifically Regu	ulated Substances (29 CFR 1	910.1001-1050)	
Not listed.			
Superfund Amendments and Re	authorization Act of 1986 (S	ARA)	
Hazard categories	Immediate Hazard - Yes	,	
-	Delayed Hazard - No		
	Fire Hazard - No		
	Pressure Hazard - No Reactivity Hazard - No		
SARA 302 Extremely	No		
hazardous substance	NO		
SARA 311/312 Hazardous chemical	No		
SARA 313 (TRI reporting)			
Chemical name		CAS number	% by wt.
Metal salt #1		HMIRA 11552	HMIRA 11552
Metal salt #3		HMIRA 11552	HMIRA 11552
Other federal regulations			
-	n 112 Hazardous Air Pollutar	nts (HAPs) List	
Metal salt #1 (CAS HMIR			
	n 112(r) Accidental Release F	Prevention (40 CFR	68.130)
Not regulated.		,	
US state regulations	See below		
-	ous Substances (Director's):	Listed substance	
	(CAS HMIRA 11552)	Listed.	
Metal salt #1 (CAS F		Listed.	
Metal salt #3 (CAS H	,	Listed.	
	afety Act: Listed substance		
	(CAS HMIRA 11552)		
Metal salt #1 (CAS H	HMIRA 11552)		

-	e (CAS HMIRA 11552)	Listed.	
Metal salt #1 (CAS		Listed.	
US - Michigan Critical	Materials Register: Parame	ter number	
Metal amine chelate	e (CAS HMIRA 11552)	COPPER	
Metal salt #3 (CAS	,	ZINC	
US - Minnesota Haz Su			
Metal salt #1 (CAS US - New Jersey RTK -	HMIRA 11552) • <b>Substances: Listed subst</b>	Listed. ance	
Boric acid salt (CAS Metal amine chelate Metal salt #1 (CAS	e (CAS HMIRA 11552)		
US - North Carolina To	xic Air Pollutants: Listed s	ubstance	
Metal salt #1 (CAS	HMIRA 11552)		
US - Texas Effects Scr	eening Levels: Listed subs	tance	
Metal salt #2 (CAS	,	Listed.	
Organic acid (CAS		Listed.	
US. Massachusetts RT			
Metal salt #3 (CAS	HMIRA 11552) r and Community Right-to	Know Act	
-		KIIOW ACT	
Metal salt #1 (CAS Metal salt #3 (CAS	-		
	ker and Community Right-	o-Know Law	
Metal amine chelate	e (CAS HMIRA 11552)		
Metal salt #1 (CAS	,		
US. Rhode Island RTK			
Not regulated.			
US. California Proposition Not Listed.	65		
nventory status			
Country(s) or region	Inventory name		On inventory (yes/no)*
Canada	Domestic Substances Lis	t (DSL)	Yes
Canada	Non-Domestic Substance		No
United States & Puerto Rico	Toxic Substances Contro		Yes
		h the inventory requirements adminis	

#### 16. Other Information

LEGENI	C	HEALTH * 2
Severe	4	FLAMMABILITY 0
Serious Moderate	3 2	PHYSICAL HAZARD 0
Slight Minimal	1 0	PERSONAL X 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.
Issue date	31-October-2017
Version #	03
Effective date	31-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.