

SDS Preparation Date (mm/dd/yyyy): 11/02/2022

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

	: Athena PK	
Other means of identification	: None assigned.	
Recommended use of the che	emical and restrictions on	use
Chemical family	 Hydroponic plant nutrient Recommended restriction Mixture 	
Name, address, and teleph of the supplier:	none number	Name, address, and telephone number of the manufacturer:
Athena Ag. Inc.		Refer to supplier
1300 Marsh Landing Parkway, Jacksonville Beach, FL, USA 32250	#106	
Supplier's Telephone #	: 1 (818) 333-1818	
24 Hr. Emergency Tel #	: INFOTRAC: (800) 535-5 323-3500 (International)	053 (Within Continental US and Canada); + 001 (352)

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Reddish-brown liquid. Sweet odour.

Most important hazards Occupational exposure to the substance or mixture may cause adverse effects. For further information, please refer to section 11 of the SDS.

This material is not classified as hazardous under U.S. OSHA regulations (29 CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Label elements

Hazard pictogram(s)

None required under U.S. OSHA Hazcom 2012 and Canadian WHMIS 2015 regulations.

Signal Word

None required under U.S. OSHA HazCom 2012 and Canadian WHMIS 2015 regulations.

Hazard statement(s)

None required.

Precautionary statement(s)

None required.

Other hazards

Other hazards which do not result in classification: Direct skin contact may cause slight or mild, transient irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Ecological information:

Not expected to be harmful to aquatic organisms. Avoid release to the environment. See Section 12 for more environmental information.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture.

Chemical name	Common name and synonyms	CAS #	Concentration (% by weight)
No hazardous ingredients	Not applicable.	N/Av	Not applicable.

SECTION 4. FIRST-AID MEASURES

Description of first aid mea	sures	
Ingestion	: Rinse mouth thoroughly. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration. Get medical attention immediately.	
Inhalation	 Harmful effects are not expected under normal usage. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. 	
Skin contact	: Wash off with soap and plenty of water. Remove and wash contaminated clothing before re-use. Get medical attention if irritation develops and persists.	
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.	
Most important symptoms	and effects, both acute and delayed	
	: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.	
Indication of any immediate medical attention and special treatment needed		
	: Provide general supportive measures and treat symptomatically Symptoms may be	

Provide general supportive measures and treat symptomatically.Symptoms may be delayed.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media Suitable extinguishing media : Water spray, fog (flooding amounts). Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread the fire. Do not use carbon dioxide or other smothering agents, as they may be ineffective. Special hazards arising from the substance or mixture / Conditions of flammability : Not considered flammable. Toxic fumes, gases or vapours may evolve on burning. May decompose to form toxic/corrosive gasses if exposed to high heat. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Flammability classification (OSHA 29 CFR 1910.106) : Not flammable. Hazardous combustion products : Nitrogen oxides (NOx); Calcium oxides; Ammonia; and other irritating fumes and smoke. Special protective equipment and precautions for firefighters Protective equipment for fire-fighters : Do not enter without wearing specialized protective equipment suitable for the situation. Firefighter's normal protective clothing (Bunker Gear) will not provide adequate protection. A full-body encapsulating chemical protective suit with positive pressure self-contained breathing apparatus (NIOSH approved or equivalent) may be necessary. Special fire-fighting procedures Move containers from fire area if safe to do so. Contaminated surfaces may be slippery. Cool closed containers exposed to fire with water spray. Do not allow run-off

from fire fighting to enter drains or water courses. Dike for water control.



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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, prote	ctive equipment and emergency procedures
	 Restrict access to area until completion of clean-up. Keep people away from and upwind of spill/leak. Contaminated surfaces may be slippery. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to protective measures listed in sections 7 and 8. Do not allow material to contaminate ground water system. Browert product from
Environmental precautions	: Do not allow material to contaminate ground water system. Prevent product from entering drains, sewers, waterways and soil.
Methods and material for co	
	: Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Do not touch or walk through spilled material. Material can create slippery conditions. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand). Place in clean, dry and labeled containers. Clean surface thoroughly to remove residual contamination. After cleaning, flush away traces with water. Do not flush into surface water or sanitary sewer system. Refer to Section 13 for disposal of contaminated material. Contact the proper local authorities.
Special spill response proce	edures
	 If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the National Response Center in the United States (phone: 1-800-424-8802).
	EPA/CERCLA Reportable quantity (RQ): See section 15.
	In Canada: Contact appropriate local and provincial environmental authorities for assistance and/or reporting requirements.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Conditions for safe storage	:	Keep container tightly closed when not in use. Wear appropriate protective equipment. Material can create slippery conditions. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Do not ingest. Wash thoroughly after handling. Keep away from incompatibles. Keep away from extreme heat and flame. Empty containers retain residue and can be dangerous. Store in a cool, dry, well ventilated area. Store away from incompatible materials. Keep away from heat and sources of ignition. Keep away from direct sunlight. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Do not store in open or unlabelled containers. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. No smoking. Inspect periodically for damage or leaks. Have appropriate fire extinguishers and spill clean-up equipment in or near storage area.
Incompatible materials	:	Acids; Bases; Reducing agents.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:				
Chemical Name	<u>ACGI</u>	H TLV	<u>OSH</u>	A PEL
	<u>TWA</u>	<u>STEL</u>	PEL	<u>STEL</u>
No hazardous ingredients	N/Av	N/Av	N/Av	N/Av



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Exposure controls

Ventilation and engineering measures			
	Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.		
Respiratory protection	If airbourne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators.Use a NIOSH approved dust respirator if dust levels exceed exposure limits. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.Advice should be sought from respiratory protection specialists.		
Skin protection	Wear protective gloves. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Depending on conditions of use, safety shoes and additional protective clothing may also be necessary.		
Eye / face protection	Wear eye/face protection. Chemical goggles are recommended when there is a potential for splashing.		
Other protective equipment	Emergency showers and eyewash facilities should be nearby. Other equipment may be required depending on workplace standards.		
General hygiene consideration	IS		
	Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after using this product, and before eating, drinking or		

: Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after using this product, and before eating, drinking or smoking. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	: Reddish-brown liquid.
Odour	: Sweet odour.
Odour threshold	: Not available.
рН	: 3.2-4.2
Melting Point/Freezing point	: 0°C (32°F)
Initial boiling point and boilir	ng range
	: Not available.
Flash point	: Not available.
Flashpoint (Method)	: Not available.
Evaporation rate (BuAe = 1)	: Not available.
Flammability (solid, gas)	: Not considered flammable.
Lower flammable limit (% by	vol.)
	: Not available.
Upper flammable limit (% by	vol.)
	: Not available.
Oxidizing properties	: None.
Explosive properties	: Not explosive
Vapour pressure	: Not available.
Vapour density	: Not available.
Relative density / Specific gr	avity
	: 1.13-1.17
Solubility in water	: Soluble
Other solubility(ies)	: Not available.
Partition coefficient: n-octan	ol/water or Coefficient of water/oil distribution

: Not available.

Auto-ignition temperature : Not available.



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Decomposition temperature	:	Not available.
Viscosity	:	same as water
Volatiles (% by weight)	:	Not available.
Volatile organic Compounds (VOC's)		OC's)
	:	Not available.
Absolute pressure of container		
	:	Not applicable.
Flame projection length	:	Not applicable.
Other physical/chemical comments		ents
	:	No additional inforr

	: No additional information.
SECTION 10. STABILITY	Y AND REACTIVITY
Reactivity	: Not normally reactive.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous re	eactions
	 Hazardous polymerization does not occur. No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Avoid contact with incompatible materials. Keep away from extreme heat and flame.
Incompatible materials	: Acids; Bases; Reducing agents.
Hazardous decomposition	products
	: Nitrogen oxides (NOx); Calcium oxides; Ammonia.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation	: YES
Routes of entry skin & eye	: YES
Routes of entry Ingestion	: YES
Routes of exposure skin abs	orption
	: YES
Potential Health Effects:	

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

	Harmful effects are not expected under normal usage.		
Sign and symptoms ingestion	Sign and symptoms ingestion		
	: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.		
Sign and symptoms skin	: Direct skin contact may cause slight or mild, transient irritation.		
Sign and symptoms eyes	: May cause mild eye irritation. Symptoms may include tearing, redness and discomfort.		
Potential Chronic Health Eff	ects		
	: Contains material which may cause adverse blood system effects.		
Mutagenicity	: Not expected to be mutagenic in humans.		
Carcinogenicity	 No component of this product present at levels greater than, or equal to, 0.1% is identified as a carcinogen or potential carcinogen by ACGIH, IARC, OSHA, or NTP. 		
Reproductive effects & Tera	togenicity		
	: Not expected to cause reproductive effects.		
Sensitization to material	: Not expected to be a skin or respiratory sensitizer.		



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Specific target organ effe	cts :	Not classified as a specific target organ toxicity-single exposure. Not classified as specific target organ toxicity-repeated exposure.
Medical conditions aggra	vated	by overexposure
	:	Pre-existing skin, eye and respiratory disorders.
Synergistic materials	:	No information available.
Toxicological data	:	There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

	LC₅₀(4hr)	LD50		
Chemical name	<u>inh, rat</u>	(Oral, rat)	<u>(Rabbit, dermal)</u>	
No hazardous ingredients	N/Av	N/Av	N/Av	

Other important toxicological hazards

: None reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

: Not expected to be harmful to aquatic organisms. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. See the following tables for the substance's ecotoxicity data.

Ecotoxicity data:

Ingradianta	CAC #		Toxicity to Fish		
<u>Ingredients</u>	CAS #	LC50 / 96h	NOEC / 21 day	M Factor	
No hazardous ingredients	N/Av	N/Av	N/Av	None.	

Ingredients	CAS #	Toxicity to Daphnia				
		EC50 / 48h	NOEC / 21 day	M Factor		
No hazardous ingredients	N/Av	N/Av	N/Av	None.		

Ingredients	CAS #	Toxicity to Algae				
		EC50 / 96h or 72h NOEC /		M Factor		
No hazardous ingredients	N/Av	N/Av	N/Av	None.		
Persistence and degradability : Bioaccumulation potential :	Not expected	vailable on the product itse d to bioaccumulate. wing data for ingredient in				
<u>Components</u>	Partition co	efficient n-octanol/water	(log Kow) Bioconcentra	tion factor (BCF)		
No hazardous ingredients (CA N/Av)	S	N/Av	N/Av			



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Mobility in soil Other Adverse Environme	 There is no data available for this product. ntal effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
SECTION 13. DISPOSAL	CONSIDERATIONS
Handling for Disposal	: Handle in accordance with good industrial hygiene and safety practice. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Refer to protective measures listed in sections 7 and 8.
Methods of Disposal	 Dispose in accordance with all applicable federal, state, provincial and local regulations.
RCRA	: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	None.	Not regulated.	not regulated	none	\bigotimes
49CFR/DOT Additional information	None.	1			
TDG	None.	Not regulated.	not regulated	none	\bigotimes
TDG Additional information	None.	<u> </u>			
ICAO/IATA	None.	Not regulated.	not regulated	none	\bigotimes
ICAO/IATA Additional information	None.				
IMDG	None.	Not regulated.	not regulated	none	\bigotimes
IMDG Additional information	None.	1	!		

Special precautions for user :

Environmental hazards :

Appropriate advice on safety must accompany the package.

This substance does not meet the criteria for an environmentally hazardous substance according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.



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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: This information is not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

		TSCA	CERCLA Reportable	SARA TITLE III: Sec. 302, Extremely	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical		
Ingredients CAS #	Inventory	Quantity(RQ) (40 CFR 117.302):	Hazardous Substance, 40 CFR 355:	Toxic Chemical	de minimus Concentration		
No hazardous ingredients	N/Av	Yes	None.	None.	No	N/Ap	

SARA TITLE III: Sec. 311 and 312 SDS Requirements, 40 CFR 370 Hazard Classes: Not a hazard under normal conditions of use.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	CAS #	California	a Proposition 65		State '	"Right to	o Know"	Lists	
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
No hazardous ingredients	N/Av	No	N/Ap	No	No	No	No	No	No

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

International Information:

Components listed below are present on the following International Inventory list:

Ingredients	CAS #	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
No hazardous ingredients	N/Av	Not applicable.	N/Av	N/Av	N/Av	N/Av	N/Av	N/Av

SECTION 16. OTHER INFORMATION

Legend	 ACGIH: American Conference of Governmental Industrial Hygienists AICS: Australian Inventory of Chemical Substances CAS: Chemical Abstract Services CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980 CFR: Code of Federal Regulations CSA: Canadian Standards Association EC50: Effective Concentration 50% ENCS: Existing and New Chemical Substances EPA: Environmental Protection Agency
	IECSC: Inventory of Existing Chemical Substances



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	IOC: Inventory of Chemicals
	KECI: Korean Existing Chemicals Inventory
	KECL: Korean Existing Chemicals List
	LC: Lethal Concentration
	LD: Lethal Dose
	N/Ap: Not Applicable
	N/Av: Not Available
	NIOSH: National Institute of Occupational Safety and Health
	NOEC: No observable effect concentration
	NTP: National Toxicology Program
	OSHA: Occupational Safety and Health Administration
	PEL: Permissible exposure limit
	PICCS: Philippine Inventory of Chemicals and Chemical Substances
	SARA: Superfund Amendments and Reauthorization Act
	STEL: Short Term Exposure Limit
	TDG: Canadian Transportation of Dangerous Goods Act & Regulations
	TLV: Threshold Limit Values
	TSCA: Toxic Substance Control Act
	TWA: Time Weighted Average
References	: 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents &
	Biological Exposure Indices
	2. ECHA - European Chemical Agency
	3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases
	4. Safety Data Sheets from manufacturer.
	5. US EPA Title III List of Lists
	6. California Proposition 65 List
Dremenetien Dete (mm/dd/m	7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal
Preparation Date (mm/dd/yy	(YY)
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Other special consideration	s for handling
	: Provide adequate information, instruction and training for operators.

Prepared for: Athena Ag. Inc. 1300 Marsh Landing Parkway, #106 Jacksonville, Beach, FL 32250 Telephone: 1 (818) 333-1818 Prepared by: ICC The Compliance Center Inc. Telephone: (888) 442-9628 (U.S.): (888) 977-4834 (Canada) http://www.thecompliancecenter.com

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END OF DOCUMENT

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