

Athena Grow A

SDS Preparation Date (dd/mm/yyyy): 26/09/2025

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SAFETY DATA SHEET

SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier : Athena Grow A

Product Code(s) : UFI - F200-U0CW-6005-Q7PK

1.2 Relevant identified uses of the substance or mixture and uses advised against

: Hydroponic plant nutrient/fertilizer

Restriction on use: None known

1.3 Details of the supplier of the safety data sheet:

Athena Ag, Inc.

1300 Marsh Landing Parkway #106
Jacksonville Beach, FL, USA
32250

Telephone : (844) 333 1818

1.4 Emergency Telephone Number

: INFOTRAC: (800) 535-5053 (US and Canada); + 001 (352) 323-3500 (International)
Poisons Information Centre
The United Kingdom NHS 111
Austria +436646210336; +4314066898
Belgium +32022649636
Bulgaria +359 2 9301214; +359 29301216
Croatia +38514686910
Cyprus +35722405611
Czech Republic +420 267 082 236; +420 267 082 230; +420 267 082 229
Denmark +45 72 54 40 00
Estonia +372 794 3500
Finland +358 5052 000; +358 09 4711
France + 33 3 83 85 21 92
Germany +49-30-18412-0
Greece + 30 210 7793777; + 30 210 6479250; + 30 210 6479450
Hungary +36 (1) 476 1135
Iceland +354 543 22 22
Ireland +01 809 2166
Italy
06 68593726 (CAV "Osp. Pediatrico Bambino Gesù" Dip. Emergenza - Roma) 800
183459 (Az. Osp. Univ. Foggia - Foggia)
081 5453333 (Az. Osp. "A. Cardarelli" - Napoli)
06 49978000 (CAV Policlinico "Umberto I" - Roma)
06 3054343 (CAV Policlinico "A. Gemelli" - Roma)
055 7947819 (Az. Osp. "Careggi" U.O. Tossicologia Medica - Firenze)
0382 24444 (CAV Centro Nazionale di Informazione Tossicologica - Pavia) 02
66101029 (Osp. Niguarda Ca' Granda - Milano)
800 883300 (Azienda Ospedaliera Papa Giovanni XXII - Bergamo)
Latvia +371 67032600
Lithuania +370 682 92653
Luxembourg +320 22649636; +352 24785551
Malta +356 2395 2000
Netherlands +31 88 75 585 61
Norway +47 73 58 05 00; +47 21 07 70 00
Poland +48 42 2538 400
Portugal +351213303271
Romania +40215992300
Slovakia +421 2 5465 2307
Slovenia + 386 1 522 1293; +38614006039
Spain +34 917689800
Sweden +46104566750

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1.5 National Contact

: compliance@athenaag.com

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Dark red liquid. Semi-metallic, slightly sweet odour.

Most important hazards: Harmful if swallowed. For further information, please refer to section 11 of the SDS.

This product is classified as hazardous in accordance with Regulation (EC) No 1272/2008.

Hazard classification:

Acute toxicity, oral - Category 4

2.2 Label elements

Hazard pictogram(s)



Hazardous components which must be listed on the label:

Nitric acid, ammonium calcium salt

Signal word:

Warning!

Hazard statements:

H302 - Harmful if swallowed.

Precautionary statements:

P270 - Do not eat, drink or smoke when using this product.

P264 - Wash thoroughly after handling.

P301 + P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.

P330 - Rinse mouth.

P501 - Dispose of contents/container in accordance with local regulation.

Supplemental Hazard Statements:

Not applicable.

2.3 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.

PBT assessment This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

Endocrine disrupting properties: Not applicable.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Mixture.

Substance name	CAS No	EC No.	Reach Registration No.	% Weight	Classification according to Regulation (EC) nr. 1272/2008	SCL, M-factor, ATE
Nitric acid, ammonium calcium salt	15245-12-2	239-289-5	Present	10.0 - 30.0	Acute Tox. 4; H302	Not applicable.
Potassium nitrate	7757-79-1	231-818-8	Present	7.0 - 13.0	Oxid. Sol. 3; H272	Not applicable.

For the full text of the H phrases not mentioned in this Section or in Section 2, see Section 16.

SECTION 4. FIRST-AID MEASURES

4.1 Description of first aid measures

- 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. Immediately call a POISON CENTER or doctor/physician.

4.1.2 Self-protection for the first aider

- : Wear protective gloves and eye/face protection.

4.2 Most important symptoms and effects, both acute and delayed

- : Harmful if swallowed. Direct skin contact may cause slight or mild, transient irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

- : Provide general supportive measures and treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 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.

5.2 Special hazards arising from the substance or mixture

- : 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.

5.3 Advice for firefighters

Protective equipment for fire-fighters

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- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

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.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective 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.

6.2 Environmental precautions

- : Do not allow material to contaminate ground water system. Prevent product from entering drains, sewers, waterways and soil.

6.3 Methods and material for containment and cleaning up

- : 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.

6.4 Reference to other sections

- : Refer to Section 5 for firefighting instructions. Refer to protective measures listed in sections 7 and 8. Refer to Section 13 for disposal of material.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

- : 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.

7.2 Conditions for safe storage, including any incompatibilities

- : 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.

7.3 Specific end use(s)

- : Hydroponic plant nutrient/fertilizer

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

<u>Exposure Limits:</u>			
<u>Chemical Name</u>	<u>Exposure Limits</u>	<u>Type</u>	<u>Notes</u>
Nitric acid, ammonium calcium salt			

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	N/Av	Germany (OEL)	N/Av
	N/Av	Portugal (OEL)	N/Av
	N/Av	Spain (OEL)	N/Av
	N/Av	The United Kingdom (WELs)	N/Av
Potassium nitrate			
	N/Av	Germany (OEL)	N/Av
	N/Av	Portugal (OEL)	N/Av
	N/Av	Spain (OEL)	N/Av
	N/Av	The United Kingdom (WELs)	N/Av

Biological Exposure Indices:

<u>Chemical Name</u>	<u>Biological Exposure Indices</u>	<u>Type</u>
<u>Chemical Name</u>	<u>Biological Exposure Indices</u>	<u>Type</u>
Nitric acid, ammonium calcium salt		
	N/Av	UK. EH40 Biological Monitoring Guidance Values (BMGVs)
	N/Av	Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4
	N/Av	Portugal
	N/Av	Germany. TRGS 903, BAT List (Biological Limit Values)
Potassium nitrate		
	N/Av	UK. EH40 Biological Monitoring Guidance Values (BMGVs)
	N/Av	Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4
	N/Av	Portugal
	N/Av	Germany. TRGS 903, BAT List (Biological Limit Values)

Derived No Effect Level (DNEL)

(CAS 15245-12-2) general population oral systemic effects acute/short term exposure 10 mg/kg bw/day

Predicted No Effect Concentration (PNEC)

(CAS 15245-12-2) 18 g/L Sewage treatment

(CAS# 7757-79-1) 18 g/L Sewage treatment

8.2 Exposure controls

Ventilation and engineering measures

- : Provide adequate ventilation. If product is processed in a manner that generates dusts or fumes, provide mechanical ventilation to control airborne exposure levels.

Respiratory protection

- : Not required under normal conditions of handling. If product is processed in a manner that generates dusts or fumes, conduct air monitoring to assess the need for respiratory protection. Advice should be sought from respiratory protection specialists.

Skin protection

- : Not required under normal conditions of handling. For prolonged or repeated contact use protective gloves. Advice should be sought from glove suppliers.

Eye / face protection

- : Not required under normal conditions of handling. If product is processed in a manner that generates dusts or fumes, wear as appropriate: Safety glasses with side shields; Goggles

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Other protective equipment

: An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.

General hygiene considerations

: Avoid breathing fumes. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

8.3 Environmental exposure controls

: Avoid release to the environment.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Dark red
Odour	: Semi-metallic, slightly sweet.
Odour threshold	: Not available.
pH	: 5.5 ± 0.5
Flash point	: Not available.
Flashpoint (Method)	: Not available.
Lower flammable limit (% by vol.)	: Not available.
Upper flammable limit (% by vol.)	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Oxidizing properties	: Contains a mild oxidizer.
Explosive properties	: Not explosive
Initial boiling point and boiling range	: Not available.
Melting/Freezing point	: ~1 °C (30.2°F)
Relative density	: 1.198 ± 0.005
Solubility in water	: Soluble
Other solubility(ies)	: Not available.
Vapour pressure	: Not available.
Vapour density	: Not available.
Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Not available.
Evaporation rate (BuAe = 1)	: Not available.
Particle characteristics	: Not available

9.2 Other Information

Volatiles (% by weight)	: Not available.
Volatile organic Compounds (VOC's)	: Not available.

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Other physical/chemical comments

: No additional information.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity : Not normally reactive.

10.2 Chemical stability : Stable under normal conditions.

10.3 Possibility of hazardous reactions

: Hazardous polymerization does not occur. No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid : Avoid contact with incompatible materials. Keep away from extreme heat and flame.

10.5 Incompatible materials

: Acids; Bases; Reducing agents.

10.6 Hazardous decomposition products

: Nitrogen oxides (NO_x); Calcium oxides; Ammonia.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects:

Acute toxicity : Harmful if swallowed.

Skin corrosion/Irritation : According to the classification criteria of the European Union, this product is not considered as being a skin corrosive or irritant.

Serious eye damage/irritation

: According to the classification criteria of the European Union, this product is not considered an eye damage or irritant.

Respiratory or skin sensitisation

: According to the classification criteria of the European Union, this product is not considered as being an allergic respiratory sensitiser. According to the classification criteria of the European Union, this product is not considered as being an allergic skin sensitiser.

Germ cell mutagenicity : According to the classification criteria of the European Union, the product is not considered as being a germ cell mutagen.

Carcinogenicity : According to the classification criteria of the European Union, the product is not considered as being a carcinogen.

Reproductive toxicity : According to the classification criteria of the European Union, this product is not considered as being toxic to reproduction.

STOT-single exposure : According to the classification criteria of the European Union, this product is not expected to cause target organ toxicity through a single exposure.

STOT-repeated exposure : According to the classification criteria of the European Union, this product is not expected to cause target organ toxicity through repeated exposures.

Aspiration hazard : According to the classification criteria of the European Union, this product is not considered as being an aspiration hazard to humans.

Routes of exposure : Skin contact; Eye contact

Effects of acute exposure : Skin contact: Direct skin contact may cause slight or mild, transient irritation.
Eye contact: Direct eye contact may cause slight or mild, transient irritation.
Inhalation: Not an expected route of entry under normal conditions of use.
Ingestion: Not an expected route of entry under normal conditions of use.

Potential Chronic Health Effects

: Not applicable

11.1.1 Acute Toxicity

Toxicological data : There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data. The calculated ATE values for this mixture are:
ATE oral = 1783.59 mg/kg

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<u>Chemical name</u>	LC₅₀(4hr)	LD₅₀	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Nitric acid, ammonium calcium salt	N/Av	>300 - <2000 mg/kg	>2000 mg/kg (rat) (No mortality)
Potassium nitrate	N/Av	3540 mg/kg	> 5000 mg/kg

11.2 Information on other Hazards

: Not applicable

11.2.1 Endocrine disrupting properties :Not applicable

11.2.2 Other hazards :Not applicable

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity : 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:

<u>Ingredients</u>	CAS No	Toxicity to Fish		
		LC₅₀ / 96h	NOEC / 21 day	M Factor
Nitric acid, ammonium calcium salt	15245-12-2	>100 mg/L Rainbow trout Read-across (Analogy)	157 mg/L (32 days) (Read-across)	None.
Potassium nitrate	7757-79-1	> 100 mg/L (Rainbow trout)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Daphnia		
		EC₅₀ / 48h	NOEC / 21 day	M Factor
Nitric acid, ammonium calcium salt	15245-12-2	>100 mg/L Daphnia magna (Water flea)	N/Av	None.
Potassium nitrate	7757-79-1	490 mg/L (Daphnia magna)	N/Av	None.

<u>Ingredients</u>	CAS No	Toxicity to Algae		
		EC₅₀ / 96h or 72h	NOEC / 96h or 72h	M Factor
Nitric acid, ammonium calcium salt	15245-12-2	>100 mg/L/72hr Green algae	100 mg/L/72hr	None.
Potassium nitrate	7757-79-1	N/Av	N/Av	None.

12.2 Persistence and degradability

: No data is available on the product itself.

12.3 Bioaccumulation potential

: Not expected to bioaccumulate.
See the following data for ingredient information.

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<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Nitric acid, ammonium calcium salt (CAS 15245-12-2)	N/Ap	Not expected to bioaccumulate.
Potassium nitrate (CAS 7757-79-1)	- 0.79	

12.4 Mobility in soil : There is no data available for this product.

12.5 Results of PBT and vPvB assessment

: This preparation contains no substances, at reportable levels, considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Endocrine disrupting properties

: Not applicable

12.7 Other Adverse Environmental effects

: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

12.8 Additional information : Not applicable

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

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 regulations.

SECTION 14. TRANSPORTATION INFORMATION

<i>Regulatory Information</i>	14.1 UN Number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing Group	<i>Label</i>
ICAO/IATA	None.	Not regulated.	not regulated	none	
ICAO/IATA Additional information	None.				
IMDG	None.	Not regulated.	not regulated	none	
IMDG Additional information	None.				
ADR/RID	None.	not regulated	not regulated	none	
ADR/RID Additional information	Not classified as dangerous for conveyance in the meaning of the regulations for the transport of dangerous goods by road and rail.				

14.5 Environmental hazards : 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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14.6 Special precautions for user

: Appropriate advice on safety must accompany the package.

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

: This information is not available.

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

: Classification according to Regulation (EC) No. 1272/2008 on the classification of hazardous substances and mixtures.

Authorisations:

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended: Not applicable.

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended Not applicable.

Directive 2012/18/EU (Seveso III) on the control of major-accident hazards involving dangerous substances: Not applicable.

Directive 98/24/EC on the protection of the health and safety of workers from risks related to chemical agents at work: Not applicable.

Directive 94/33/EC on the protection of young people at work: Not applicable.

German legislation on water endangering substances AWSV Water hazard class (Germany) 1 - self classified)

15.2 Chemical safety assessment

: A chemical safety assessment has not been carried out by the Manufacturer of this product.

SECTION 16. OTHER INFORMATION

Legend

: AICS: Australian Inventory of Chemical Substances
CAS: Chemical Abstract Services
EC50: Effective Concentration 50%
ENCS: Existing and New Chemical Substances
IECSC: Inventory of Existing Chemical Substances
IOC: Inventory of Chemicals
LC: Lethal Concentration
LD: Lethal Dose
N/Ap: Not Applicable
N/Av: Not Available
NOEC: No observable effect concentration
PEL: Permissible exposure limit
PICCS: Philippine Inventory of Chemicals and Chemical Substances
STEL: Short Term Exposure Limit
TLV: Threshold Limit Values
TWA: Time Weighted Average

Information Source

: 1. Material Safety Data Sheet from manufacturer.
2. Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases
3. European Chemicals Agency, Classification Legislation

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Regulation and Procedure :

Acute toxicity; Expert judgement

H-phrases (full-text)

H272 - May intensify fire; oxidizer.

H302 - Harmful if swallowed.

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

Prepared for:

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Jacksonville Beach, FL 32250, USA
Telephone: 1 (818) 333-1818



Prepared by:

ICC The Compliance Center Inc.
<http://www.thecompliancecenter.com>



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