SAFETY DATA SHEET		
Agri Starter Liquid Peanut, Cotton, Soybean Mix	Date Prepared: 1/26/2015	Replaces: All Previous

SECTION 1. IDENTIFICATION

Product Name:	Agri Starter Liquid Peanut, Cotton, Soybean Mix
Synonyms:	None
Use:	Agricultural, Liquid Micronutrient Fertilizer
Manufactured For:	Agri-Business Technologies, Inc. 1102 Third Avenue Albany, GA 31707
Phone:	229-436-4677
Chemtrec (Emergency) Phone:	800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Pictogram	Signal Word	Hazard Class	Hazard Category	Hazard Statement
	**WARNING**	Skin Irritation Eye Irritation STOT: Single Exposure	Cat 2 Cat 2A Cat 3	Causes skin irritation Causes serious eye irritation May cause respiratory irritation
		STOT: repeat exposure	Cat 2	May cause damage to central nervous system through prolonged or repeat exposure

Precautionary Statements:

Prevention: Do not breathe vapors, mists or sprays. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, chemical splash proof goggles, and face protection.

Response: Get medical attention/advice if you feel unwell.

<u>If on skin (or hair):</u> Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention.

<u>If in eyes:</u> Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

<u>If Inhaled:</u> Remove person to fresh air and keep comfortable for breathing. Get medical attention for any breathing difficulty.

Storage: Store in a well ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents/containers in accordance with local/regional/national regulations (See Section 13 of SDS). Do not reuse container. Triple rinse container before disposal.

SECTION 3. COMPOSITION

Material	CAS #	EINECS #	%WT
Zinc Ammonium Citrate	68134-01-0	Not Assigned	6-7 %
Manganese Ammonium Citrate	68039-18-9	Not Assigned	7-8 %
Manganese Sulfate	7785-87-7	232-089-9	4-5%
Ammonium Iron Citrate	1185-57-5	214-686-6	1-2%
Ammonium Sulfate	7783-20-2	231-984-1	Proprietary blend of materials not classified as hazardous or materials below de minimus classification concentrations
Water	7732-18-5	231-791-2	

See product label for guaranteed analysis.

SECTION 4. FIRST AID MEASURES

General:	In case of persisting adverse effects consult a physician.
Ingestion:	Rinse mouth. Do NOT induce vomiting. Drink large amounts of water. Never give anything by mouth to an unconscious person. Call doctor or Poison Control.
Skin Contact:	Remove contaminated clothing. Wash with soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
Inhalation:	If inhaled: Remove person to fresh air and keep comfortable for breathing. Provide artificial respiration if necessary. Get medical attention for any breathing difficulty.
Eye Contact:	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: get medical attention.
Acute Exposure Symptoms:	Irritation to respiratory tract. Irritation or burning sensation to eyes. Prolonged or repeated contact with skin may cause skin irritation. Ingestion of product solution may cause irritation of the gastrointestinal tract to include nausea, vomiting and diarrhea.
Chronic Exposure Symptoms:	Prolonged skin contact may result in dermatitis (inflammation and redness of skin). Manganese may lead to neurotoxicity that resembles Parkinson disease. These patients may have bradykinesia, resting tremor, psychiatric disturbances, and shuffling gait.

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing Media:	Water spray is recommended. Halon, foam, dry chemical, CO2 or any ABC class extinguisher are acceptable. Use extinguishing agent most appropriate to surrounding materials. Cool containers with water spray to avoid rupture due to thermal expansion.
Specific Hazards:	This product is an aqueous mixture which will not burn. In a fire this material may decompose and produce acrid vapors, manganese, iron, and zinc compounds, sulfur oxides, nitrogen oxides, ammonia and carbon oxides
Protective Equipment and Precautions for Fire-Fighters:	Wear self-contained breathing apparatus (SCBA) and full protective gear. Avoid inhaling combustion products. Fire run-off should be contained to prevent possible environmental damage.
NFPA Rating:	Health: 1, Fire: 0, Reactivity: 0

SECTION 6. ACCIDENTAL RELEASE MEASURES	
Precautions:	Isolate area. Keep unnecessary personnel away. Avoid splashing or spraying.
Protective Equipment:	Impervious gloves (rubber, neoprene or nitrile), Long sleeved clothing. Chemical splash-proof goggles, face shield Chemical resistant apron and/or rubber boots may be needed.
Containment:	Stop flow of material if safe to do so. Dike area with diatomaceous earth or sand and maximize recovery.
Clean Up:	Pump into a suitable tank or absorb with diatomaceous earth or sand. Sweep up and place into suitable containers for agronomical land application at recommended rates or dispose of in accordance with local/regional/national regulations (See Section 13 of SDS).

SECTION 7. HANDLING AND STORAGE	
Precautions for safe handling:	Avoid contact with skin and eyes. Do not breathe sprays, vapors or mists. Do not eat, drink or use tobacco products when handling this material. Apply product in open areas. Keep away from children and pets. Do not contaminate feed, seed or any water sources. Launder work clothes frequently and separate from other laundry.
Conditions for safe storage:	Store locked up. Store in a well-ventilated, cool, dry place, away where freezing is possible. Keep away from any sources of heat or flame. Store tote and smaller containers out of direct sunlight at moderate temperatures. Keep containers tightly closed when not in use. Do not let product go below 35°F. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Product solutions have been successfully stored in fiberglass, polypropylene and HD polyethylene.
Incompatibilities:	Water reactive materials, strong oxidizers. Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness. Not compatible with copper, zinc, aluminum or their alloys (e.g. brass, bronze or galvanized metal). These materials of construction should not be used in handling systems or storage containers for this product.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION			
Component Exposure Limits:	Ammonium manganese citrate, manganese sulfate.	5 mg/m^3	PEL, OSHA (as Mn compounds)
		Not Established	STEL, OSHA
		0.2 mg/m^3	TLV, ACGIH (as Mn compounds)
		500 mg/m^3	IDLH, NIOSH (as Mn)
		1 mg/m^3	TWA, NIOSH (as Mn)
		3 mg/m^3	STEL, NIOSH (as Mn)
	Ammonium Iron Citrate	1 mg/m^3	PEL, OSHA (Iron Soluble Salts, as Fe)
		1 mg/m^3	TWA, ACGIH (Iron Soluble Salts, as Fe)
		Not Established	IDLH, NIOSH
		1 mg/m^3	REL, NIOSH (Iron Soluble Salts, as Fe)
		Not Established	STEL, NIOSH
	Ammonium zinc citrate, ammonium sulfate	Not Established	PEL, OSHA
		Not Established	TWA, ACGIH
		Not Established	IDLH, NIOSH
		Not Established	REL, NIOSH
		Not Established	STEL, NIOSH
Engineering Controls:	Provide local exhaust ventilation and wash facilities.		
Personal Protective Equipment:	Eyes: Chemical splash-proof goggles (where splashing is possible) Skin: Impervious gloves (rubber, neoprene or nitrile), long sleeved clothing. Chemically resistant apron is recommended. Respiratory: None required for ambient air concentrations (i.e. in the open under normal agronomic conditions) not exceeding occupational exposure limits. Respiratory protection may be required in the event of a spill in an enclosed area. Use a NIOSH/MSHA approved SCBA with full face piece operated in a positive pressure mode.		
General:	Eye wash stations and safety shower recommended.		

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES			
Appearance:	Dark Liquid		
Odor:	Ammonia odor	**UEL / LEL:**	Not Applicable
Odor Threshold:	Not Available	**Vapor Pressure:**	Similar to water
pH:	8.4 to 9.6	**Density:**	1.22 to 1.24 g/cm^3
Melting/Freezing Point:	< 0°C (32°F)	**Solubility:**	Water
Boiling Point:	> 100°C (212°F)	**Log_{ow}:**	Not Available
Flash Point:	Not Applicable	**Auto Ignition Temp:**	Not Applicable
Evaporation Rate:	Similar to water	**Decomposition Temp:**	Not Available
Flammability (Solid/Gas):	Not Applicable	**Viscosity**	Not Available

SECTION 10. STABILITY AND REACTIVITY	
Reactivity:	Stable
Chemical Stability:	Stable under normal conditions
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur.
Conditions to avoid:	Avoid exposure to extreme temperatures and contact with incompatible. Elevated temperatures may cause containers to rupture. Cold temperatures may cause product to salt out.
Incompatible Materials:	Water reactive materials, strong oxidizers. Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness. Acids will cause the release of sulfur dioxide, a severe respiratory hazard. Not compatible with copper, zinc, aluminum or their alloys (e.g. brass, bronze or galvanized metal). These materials of construction should not be used in handling systems or storage containers for this product.
Hazardous Decomposition Products:	Manganese, iron and zinc compounds; sulfur oxides, carbon oxides, nitrogen oxides and ammonia.

SECTION 11. TOXILOGICAL INFORMATION	
Acute Toxicity:	Zinc Ammonium Citrate, Manganese Ammonium Citrate, Ammonium Iron Citrate, but for analogous substances: Zinc Sulfate: LD50 oral (rat): 920 mg/kg Manganese Sulfate: LD50 oral (rat): 2150 mg/kg Ammonium Sulfate: LD50 oral (rat): 4250 mg/kg Iron Citrate: LD50 oral (rat): 1487 mg/kg (100% basis), ATE >2000 mg/kg in product
Likely Routes of Exposure:	Inhalation, ingestion or skin absorption
Symptoms and Signs of Exposure:	Eyes: Cause irritation. May result in redness, tearing and blurred vision. Skin: Causes irritation to the skin. May result in redness, itching and pain. Ingestion: May cause digestive tract irritation, with accompanying nausea, vomiting and diarrhea. Inhalation of mist may irritate or burn nose, throat and lungs. Coughing, nausea, headaches and weakness are possible.
Chronic Effects:	Prolonged skin contact may result in dermatitis (inflammation and redness of skin. Manganese may lead to neurotoxicity that resembles Parkinson disease. These patients may have bradykinesia, resting tremor, psychiatric disturbances, and shuffling gait. Also, chronic excess manganese inhalational exposures may lead to pulmonary inflammation and subsequent reactive airway disease.
Carcinogenetic:	None of this product's components are listed by IARC, ACGIH, OSHA, NIOSH or NTP as carcinogenic.
Mutagenicity:	Not Available
Reproductive Toxicity:	Not Available

SECTION 12. ECOLOGICAL INFORMATION	
Ecotoxicity:	In high concentrations, this product may be harmful to both terrestrial and aquatic plant or animal life.
Other Adverse Effects:	Not harmful to ozone layer
Ecotoxicity:	Ammonium Iron Citrate : LD50 (96 hr) Anguilla japonica (Japanese Eel): 123 mg/kg bdwt, injection Zinc Ammonium Citrate, Manganese Ammonium Citrate: Not Available, but for analogous substances: Zinc Sulfate: EC50 Daphnia Magna (Water Flea): 0.538-0.908 mg/L/48 hr, static LC50 Pimephales promelas (Flathead Minnow): 0.06 mg/L/96 hr static LC50 Pimephales promelas (Flathead Minnow): 0.218-0.42 mg/L/96 hr flow through Manganese Sulfate: EC50 Daphnia Magna (Water Flea): 7.09-9.36 mg/L/48 hr, static LC50 Pimephales promelas (Flathead Minnow): 24.3-38.9 mg/L/96 hr flow through Ammonium Sulfate: EC50 Daphnia Magna (Water Flea): 52-67 mg/L/48 hr, static LC50 Pimephales promelas (Flathead Minnow): >100 mg/L/96 hr static

SECTION 13. DISPOSAL CONSIDERATIONS	
General Information:	None
Disposal Instructions:	Agronomical land application at recommended rates or dispose of in accordance with local/regional/national regulations. Do not reuse containers.

SECTION 14. TRANSPORT INFORMATION	
This material is not hazardous as defined by 49 CFR 172.101 by the US Department of Transportation	
Proper Shipping Name:	Not Applicable
Hazard Class:	Not Applicable
UN Identification #:	Not Applicable
Packing Group:	Not Applicable
Required Label(s):	Not Applicable
Emergency Response Guide Number:	Not Applicable
Marine Pollutant:	Yes (Manganese, and Zinc compounds)

SECTION 15. REGULATORY INFORMATION	
TSCA Inventory Status	All intentional ingredients listed on the TSCA inventory.
DSCL (EEC) Status	All intentional ingredients listed on the DSCL inventory.
United States – SARA Hazard Category:	This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act (SARA) and is considered, under applicable definitions, to meet the following categories: Fire – No, Pressure – No, Acute – Yes, Chronic – Yes, Reactive – No
SARA Title III Information:	This product contains the following substances subject to the reporting requirements of Title III (EPCRA) of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
Iron Ammonium Citrate	CERCLA RQ (pounds): 1000 (50,000 lbs this product) SARA Reporting, 302: No SARA Reporting, 304: No SARA Reporting, 313: Yes
Zinc Ammonium Citrate, Manganese Ammonium Citrate, Manganese Sulfate	CERCLA RQ (pounds): No RQ is assigned to this generic or broad class, (Manganese and Zinc compounds) although the class is a CERCLA hazardous substance. See 50 Federal Register 13456 (April 4, 1985). SARA Reporting, 302: No SARA Reporting, 304: No SARA Reporting, 313: : Yes, 1.0% de minimus concentration (N450, Manganese Compounds), 1.0% de minimus concentration and (N982, Zinc Compounds)
Ammonium Sulfate,	CERCLA RQ (pounds): No SARA Reporting, 302: No SARA Reporting, 304: No SARA Reporting, 313: No
Federal Insecticide, Fungicide, and Rodenticide Act	This product is not a pesticide.
State Regulations:	Other state regulations may apply. Check individual state requirements.

SECTION 16. OTHER INFORMATION	
Date of Revision:	1/26/2014, revision prepared in accordance with 29 CFR 1910.1200 Appendix D to meet Global Harmonization Standards.
Disclaimer:	The information contained in this SDS refers only to the specific material designated and does not relate to any process or use with any other materials. This information is based on data believed to be accurate and reliable as of the date hereof. It is intended for use by persons possessing technical knowledge at their own discretion and risk. Because safety standards and regulations are subject to change and because Agri-Business Technologies, Inc. has no continuing control over the material, those handling, storing or using the material should satisfy themselves that they have current information regarding the particular way the material is handled, stored or used and that the same is done in accordance with federal, state and local law. No warranty, expressed or implied, and no liability is assumed by Agri-Business Technologies, Inc. in conjunction with the use of this information. Nothing herein is to be construed as a recommendation to infringe any patents.