

U.S. Transport Summary: Not regulated by the U.S. D.O.T. as a hazardous material.

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTITY: THRIVE Solutions-AG 08-21-04, Agricultural NPK Fertilizer Solution, Contains: 3.0% Sulfur / 0.5% Zinc

PRODUCT ID #: LB082104M

CAS#: Mixture

COMMON NAME: 08-21-04, NPK Fertilizer, Agricultural Fertilizer

PRODUCT SDS #: SDS LB082104M

CHEMICAL DESCRIPTION: Inorganic/Organic N-P-K fertilizer solution

ISSUE DATE: May 30, 2015

RECOMMENDED USE: Fertilizer - See product label for recommended uses and use rates.

REVISION DATE: New

PRODUCT RESTRICTIONS: See product label for any restrictions on the use of this product.

VERSION NO. 01

EPA REGISTRATION #: Exempt

MANUFACTURER:

MEARS FERTILIZER, INC.

P.O. Box 1271

629 North Industrial Road

El Dorado, KS 67042

**FOR EMERGENCIES, SPILL, LEAK, FIRE, EXPOSURE,
OR ACCIDENT, CALL:
CHEMTREC 1-800-424-9300 (24 hours)**

NON-EMERGENCY BUSINESS INQUIRIES:

8:00 a.m. - 5:00 p.m. (CST) Monday - Friday

Mears Fertilizer, Inc.: (316) 321-3674 or

Toll Free: (800) 345-9143

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: May cause serious eye irritation. May cause skin irritation after prolonged exposure.

POTENTIAL HEALTH EFFECTS -

Eyes: May cause eye irritation on direct contact.

Skin: Prolonged exposure may cause skin irritation.

Inhalation: In high concentrations, vapors may be irritating to the respiratory system.

Ingestion: May be harmful if swallowed.

Pre-existing Conditions: Pre-existing conditions may be aggravated by exposure.

Chronic Health Effects: None known.

CARCINOGENICITY: NTP: Not Listed

IARC: Not Listed

OSHA: Not Listed

PHYSICAL HAZARDS: Not classified

HEALTH HAZARDS: Not classified

OSHA DEFINED HAZARDS: Eye Irritation \ Skin Irritation - Category 2A

LABEL ELEMENTS -

Hazard Symbol:



Signal Word: WARNING

Hazard Statement: Causes serious eye irritation.

% OF PRODUCT WITH UNKNOWN TOXICITY: 0.00%

PRECAUTIONARY STATEMENTS -

Prevention: Wash hands thoroughly after handling. Wear eye and face protection. Do not breathe vapors.

Response: If in eyes: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. Get medical attention if you feel unwell.

Storage: See Section 7 for storage information.

Disposal: Dispose of contents/container in accordance with Federal, state and local regulations.

HAZARD(S) NOT OTHERWISE CLASSIFIED: Not classified

SUPPLEMENTAL INFORMATION: Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

MIXTURE\SUBSTANCE

<u>Chemical Name</u>	<u>% Weight</u>	<u>CAS Reg. #</u>
Ammonium Polyphosphate Solution	60.80% - 62.80%	68333-79-9
Muriate of Potash	5.50% - 7.50%	7447-40-7
Ammonium Thiosulfate	10.60% - 12.60%	7783-18-8
Zinc-Ammonia Complex	2.40% - 4.40%	Mixture
Water	15.90% - 17.90%	7732-18-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Other ingredients not specifically listed are considered non-hazardous and are confidential business information under 29 CFR 1910.1200(I).

See Section 8 for exposure limits.

4. FIRST AID MEASURES

- IF IN EYES:** Do not rub eyes. Flush eyes immediately and thoroughly with running water for 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. If irritation persists, get medical attention.
- IF ON SKIN OR CLOTHING:** Remove contaminated clothing and wash before re-using. Wash skin with soap and water. Get medical attention if irritation persists.
- IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Rinse mouth. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- IF INHALED:** Move person to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
- NOTES TO PHYSICIAN:** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Patient treatment should be based on sound judgment of the physician and the individual reactions of the patient.

5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA:** Use extinguishing media appropriate for surrounding fire.
- SPECIAL FIRE FIGHTING PROCEDURES:** Wear NIOSHA/MSHA approved self-contained breathing apparatus and full protective gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Avoid breathing vapors; keep upwind. Use water spray to cool unopened containers.
- HAZARDOUS COMBUSTION PRODUCTS:** Heating to extreme temperatures may causes release of ammonia vapors. Heating to dryness may cause the release of ammonia and oxides of nitrogen.
- UNUSUAL FIRE AND EXPLOSION HAZARDS:** Product is not explosive. Heating of closed or sealed containers may cause a violent rupture of the container due to thermal expansion of compressed gases.

6. ACCIDENTAL RELEASE MEASURES

- PERSONAL PRECAUTIONS:** Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during cleanup. For personal protection see Section 8. Avoid contact with skin and eyes. Ensure adequate ventilation.
- ENVIRONMENTAL PRECAUTIONS:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP -**
 - Small Spill:** Stop leak if without risk. Move containers from spill area. Confine and absorb small releases with sand, earth, or other inert material. Shovel up absorbed material and place in drums for disposal as a chemical waste or recycle as a fertilizer as the original product was intended. Clean surface thoroughly for residual contamination. For waste disposal see Section 13.

Large Spill: Stop leak if without risk. Prevent entry into sewers, water courses, basements or confined areas by diking area with sand or earth. Recover as much of the spilled product as possible using portable pump and hoses. Use as originally intended or dispose of as a chemical waste. Treat remaining material as a small release (above).

GENERAL CAUTION: Spill area may be quite slippery.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with eyes/skin. Use only outdoors or in a well ventilated area. Avoid prolonged or repeated breathing of vapors/spray. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

STORAGE: Store in a cool, dry area away from children, combustibles, feed, and food products. Keep out of direct sunlight. Store away from incompatible materials. Do not re-use empty containers. Protect from exposure to fire conditions. Keep out of reach of children.

MINIMUM STORAGE TEMP: Not known.

OTHER PRECAUTIONS: Consult Federal, state and local laws and regulations pertaining to storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS: No exposure limits noted for ingredient(s).

RESPIRATORY PROTECTION: None generally required. If conditions exist where a mist is generated, a NIOSH/MSHA approved mist respirator should be worn.

ENGINEERING CONTROLS: Use adequate exhaust ventilation to prevent inhalation of product vapors. Maintain eye wash/safety shower in areas where product is handled.

PERSONAL PROTECTION EQUIPMENT -

- Eye / Face Protection:** Wear goggles or safety glasses. Contact lenses are not eye protective devices. An emergency eyewash or water supply should be readily accessible to the work area.
- Skin Protection:** Chemical resistant gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Wear appropriate clothing to prevent repeated or prolonged skin exposure.
- Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
- Thermal Hazards:** Wear appropriate thermal protective clothing, when necessary.
- General Hygiene Considerations:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Never eat, drink, or use tobacco in work areas. Routinely wash work clothing and protective equipment to remove contaminants. Handle in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE -

Physical State:	Liquid	VAPOR PRESSURE:	Not determined
Form:	Clear	VAPOR DENSITY:	Not determined
Color:	Green	VISCOSITY:	Not applicable
ODOR:	Slight ammonia odor	SPECIFIC GRAVITY (H₂O=1):	1.1 to 1.2
ODOR THRESHOLD:	Not determined	DENSITY (lbs/gal):	11.15
pH:	Not determined	PARTITION COEFFICIENT:	Not determined
MELTING POINT/FREEZING POINT:	Not applicable	SOLUBILITY(IES):	Appreciable
INITIAL BOILING POINT/RANGE:	Not applicable	AUTO-IGNITION TEMP:	Not determined
FLASH POINT:	Non-combustible	DECOMPOSITION TEMP:	Not determined
EVAPORATION RATE:	Not applicable	EXPLOSIVE PROPERTIES:	Not applicable
FLAMMABILITY (SOLID, GAS):	Not determined	OXIDIZING PROPERTIES:	Not determined
FLAMMABILITY / EXPOSURE LIMITS -		OTHER INFORMATION -	
Flammability Limit - Lower:	Not determined	Heat of Combustion:	Not determined

Flammability Limit - Upper: Not determined

10. STABILITY AND REACTIVITY

REACTIVITY: The product is stable and non-reactive under normal conditions of use, storage and transportation.

CHEMICAL STABILITY: The product is stable under normal conditions of temperature and pressure.

POSSIBILITY OF HAZARDOUS REACTIONS: Under normal conditions of storage and use, hazardous reactions will not occur.

CONDITIONS TO AVOID: Excessive heat. Contact with incompatible materials.

INCOMPATIBLE MATERIALS: Strong oxidizing agents. Bases. Reactive metals. May attack copper, zinc, and their alloys.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides (NO_x), Phosphorous oxides (Pox), Ammonia

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY -

Eye Effects: Based on component data, moderate irritation is anticipated.

Skin Effects: Based on component data, mild irritation is anticipated.

Acute Inhalation Effects: Based on component data, product is not considered to be acutely toxic via inhalation.

Acute Oral Effects: Based on component data, product is not considered to be acutely toxic via ingestion.

Specific Target Organ Toxicity: None known

CHRONIC TOXICITY -

Chronic Effects:

Carcinogenicity: Not classified

Mutagenicity: Not classified

Teratogenicity: Not classified

Reproductive Toxicity: Not classified

POTENTIAL HEALTH EFFECTS -

Inhalation: In high concentrations, vapors may be irritating to the respiratory system.

Skin: Prolonged exposure may cause skin irritation.

Eyes: May cause eye irritation on direct contact.

Ingestion: May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

ECOTOXICITY SUMMARY: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. This product is not intended for use in aquatic settings.

ECOTOXICITY DATA -

Fish Acute and Prolonged Toxicity:	Not determined	Aquatic Plant Toxicity:	Not determined
Aquatic Invertebrate Acute Toxicity:	Not determined	Honeybee Toxicity:	Not determined
Bird Acute & Prolonged Toxicity:	Not determined		

PERSISTENCE AND DEGRADABILITY: This product will promote algae growth which may degrade water quality and taste.

BIOACCUMULATIVE POTENTIAL: Not determined

MOBILITY IN SOIL: This product is water soluble and may disperse in soil.

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

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCT -

Methods of Disposal: Dispose of in accordance with applicable Federal, state, and local laws and regulations. Do not allow this material to drain into sewers, drains, or waterways.

PACKAGING -

Methods of Disposal: Ensure all product has been emptied from containers. Dispose of emptied container in accordance with applicable Federal, state, and local laws and regulations.

RCRA CHARACTERISTICS: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

14. TRANSPORTATION INFORMATION

US DOT: Not regulated by the U.S. Department of Transportation as a hazardous material for ground shipment.

IMDG: Not determined

IATA: Not determined

HAZARD CLASS: None **C.A.S. NUMBER:** Mixture

REPORTABLE QUANTITY: None **D.O.T. NUMBER:** None

LABELS REQUIRED: None **HAZARD WASTE NO:** None

PLACARD: None **EPA REGISTRATION NO:** None

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS: This product meets the criteria of the Federal OSHA Hazard Communication Standard. (29 CFR 1910.1200)

TSCA INVENTORY: All components are listed or exempt from listing on the TSCA Inventory

NFPA HAZARD RATING:

0	Least
1	Slight
2	Moderate
3	High
4	Severe

0	Health
0	Flammability
0	Reactivity

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) -

SARS Title III Hazard Categories:

Immediate Hazard	No
Delayed Hazard	No
Fire Hazard	No

Pressure Hazard	No
Reactivity Hazard	No

SARA 302 EXTREMELY HAZARDOUS SUBSTANCE: No

SARA 311/312 HAZARDOUS CHEMICAL: No

SARA 313 (TRI REPORTING): Not regulated

US OSHA SPECIFICALLY REGULATED SUBSTANCE (29 CFR 1910.1001-1050): Not Listed

CERCLA HAZARDOUS SUBSTANCE LISTED (40 CFR 302.4): This product does not contain chemicals which have a reportable quantity (RQ) under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

OTHER FEDERAL REGULATIONS -

CLEAN AIR ACT (CAA) SECTION 112 -

Hazardous Air Pollutants (HAPs) List: Not Regulated

Accidental Release Prevention (40 CFR 68.130) List: Not Regulated

SAFE DRINKING WATER ACT (SDWA): Not Regulated

FOOD AND DRUG ADMINISTRATION (FDA): Not Regulated

US STATE REGULATIONS -

US CALIFORNIA PROPOSITION 65: This product does contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

CANADIAN DOMESTIC SUBSTANCES LIST -

WHMIS CLASSIFICATION: WHMIS classification is not determined.

16. OTHER INFORMATION

ISSUE DATE: May 30, 2015
REVISION DATE: New
VERSION NO. 01

NOTICE TO READER

DISCLAIMER AND LIMITATIONS OF LIABILITY:

The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet (SDS) and was prepared pursuant to Government regulation(s) that identify specific types of information to be provided. This SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license.

Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. Information provided herein with respect to any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. No responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product. Purchasers and users assume all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Purchasers and users of the product specifically should advise all of their employees, agents, contractors and customers who will use the product of this SDS.

THRIVE SOLUTIONS-AG is a trademark of Mears Fertilizer, Inc.