

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 00-00-25/17S Potassium ThioSulfate Solution**PRODUCT ID #:** LC000025**CAS#:** 10294-66-3**COMMON NAME:** Potassium Thiosulfate, KTS**PRODUCT SDS #:** SDS LC000025**CHEMICAL DESCRIPTION:** K₂S₂O₃**ISSUE DATE:** May 30, 2015**RECOMMENDED USE:** Agricultural - Liquid Fertilizer**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**POTENTIAL HEALTH EFFECTS -**

Eyes: Causes moderate but temporary eye irritation.
Skin: May cause mild skin irritation including temporary redness and itching.
Inhalation: May cause irritation of the upper respiratory tract.
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:** None**LABEL ELEMENTS -**

Hazard Symbol: Not Applicable
Signal Word: Not Applicable
Hazard Statement: Not Applicable

% OF PRODUCT WITH UNKNOWN TOXICITY: 0.00%**PRECAUTIONARY STATEMENTS -**

Prevention: Wash hands thoroughly after handling. Wear eye and face protection. Do not breathe dust.
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>
Thiosulfuric acid (H ₂ S ₂ O ₃), dipotassium salt	50 - 60%	10294-66-3
Water	Remaining %	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:** Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue rinsing. Obtain medical attention if irritation occurs.
- IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. If victim is conscious, give two to four glasses of water and induce vomiting by touching finger to back of throat. Do not give anything by mouth to an unconscious person.
- IF INHALED:** Remove victim from contaminated area. If breathing is labored, administer oxygen. If irritation persists, get medical attention.
- 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:** This product is essentially non-flammable. Use media suitable to extinguish source of 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 causes release of sulfur oxides. Sulfur dioxide is highly irritating to the eyes, respiratory tract, and moist skin.
- UNUSUAL FIRE AND EXPLOSION HAZARDS:** 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). This product is a non-hazardous liquid fertilizer solution designed to supply potassium and sulfur to agricultural crops.
- 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.

Potassium ThioSulfate Solution

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. Use only outdoors or in a well ventilated area. Avoid prolonged or repeated breathing of vapors. 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

DEFINITIONS -

OSHA: Occupational Safety and Health Administration	TLV: Threshold Limit Value
ACGIH: American Conference of Governmental Industrial Hygienists	REL: NIOSH Recommended Exposure Limit
NIOSH: National Institute for Occupational Safety and Health	TWA: Time-Weighted Average
PEL: OSHA Permissible Exposure Limits	

EXPOSURE LIMITS -

COMPONENTS	OSHA PEL	ACGIH TLV	NIOSH REL
Not applicable	15 mg/m ³ (total dust) 5 mg/m ³ (respirable)	10 mg/m ³ (inhalable) 3 mg/m ³ (respirable)	Not Determined

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 and a full face shield. Contact lenses are not eye protective devices. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection: Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.

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

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: Liquid	VAPOR DENSITY: Not determined
Color: Clear, Colorless	VISCOSITY: 1.806 centistokes @ 77 °F (25 °C)
ODOR: Slight sulfur odor	SPECIFIC GRAVITY (H₂O=1): Not determined

Potassium ThioSulfate Solution

ODOR THRESHOLD:	Not Determined	DENSITY (lbs/ft³):	1.46 (12.2 lbs/gal)
pH:	7.00 - 9.00	PARTITION COEFFICIENT:	Not applicable
MELTING POINT/FREEZING POINT:	Salt Out Temperature <5 °F (15 °C)	SOLUBILITY(IES):	Complete
INITIAL BOILING POINT/RANGE:	~222 °F (106 °C)	AUTO-IGNITION TEMP:	Not applicable
FLASH POINT:	Non-combustible	DECOMPOSITION TEMP:	Not determined
EVAPORATION RATE:	Not applicable	EXPLOSIVE PROPERTIES:	Not applicable
FLAMMABILITY (SOLID, GAS):	Non-combustible	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:	Avoid interaction with heat (flames), oxidizers, and acids.
CHEMICAL STABILITY:	The product is stable under normal conditions of temperature and pressure.
POSSIBILITY OF HAZARDOUS REACTIONS:	Acids or acidic materials will cause the release of sulfur dioxide.
CONDITIONS TO AVOID:	Temperatures above 120 °F (49 °C). Incompatible materials.
INCOMPATIBLE MATERIALS:	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. Keep away from lead, mercury, and their alloys. These materials should not be used in handling or storage for this product.
HAZARDOUS DECOMPOSITION PRODUCTS:	Heating this product will produce potassium sulfate and oxides of sulfur. Sulfur dioxide is a severe respiratory irritant.

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:	Not listed in NTP, IARC, or by OSHA
Carcinogenicity:	Not listed in NTP, IARC, or by OSHA
Mutagenicity:	None known
Teratogenicity:	None known
Reproductive Toxicity:	None known

POTENTIAL HEALTH EFFECTS -

Inhalation:	May irritate upper respiratory tract.
Skin:	May cause mild skin irritation including temporary redness and itching.
Eyes:	Causes moderate but temporary eye irritation.
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:	Sheepshead minnow 96 hr LC ₅₀ > 1,000 mg/L Mysid Shrimp 96 hr LC ₅₀ : 89 mg/L	Honeybee Toxicity:	Not determined

Bird Acute & Prolonged Toxicity: Not determined

PERSISTENCE AND DEGRADABILITY: Not determined

BIOACCUMULATIVE POTENTIAL: This product is not bioaccumulative.

MOBILITY IN SOIL: Not determined

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: Non-hazardous under IATA regulations.

HAZARD CLASS: None **C.A.S. NUMBER:** 10294-66-3

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

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

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

U.S. SURFACE FREIGHT CLASSIFICATION: Class 43, Misc Water Solutions

15. REGULATORY INFORMATION

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

TSCA INVENTORY: Product is contained in USEPA Toxic Substance Control Act 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) -

SARA Title III Hazard Categories:

Immediate Hazard	Yes
Delayed Hazard	No
Fire Hazard	No

Pressure Hazard	No
Reactivity Hazard	No

SARA 302 EXTREMELY HAZARDOUS SUBSTANCE: No

SARA 311/312 HAZARDOUS CHEMICAL: Yes

SARA 313 (TRI REPORTING): No

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 not contain chemicals known to the State of California to cause cancer birth defects or other reproductive harm.

CANADIAN DOMESTIC SUBSTANCES LIST -

WHMIS CLASSIFICATION: Not hazardous

DSL/NDSL: Listed in DSL, Record # 9451

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.