



SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC) or
1-866-374-1975 (Tesserderlo Kerley)

1. IDENTIFICATION

PRODUCT NAME: Lime-Sulfur Solution Agricultural Fungicide
DESCRIPTION: A liquid fungicide
EPA Reg. No.: 61842-30
Chemical Characterization: Substance
COMPANY IDENTIFICATION: Tesserderlo Kerley, Inc.
 2910 N. 44th Street, Suite 100
 Phoenix, AZ 85018-7272
 (602) 889-8300

2. HAZARD IDENTIFICATION

WARNING

Causes serious eye irritation (H319)
 Harmful if swallowed or inhaled (H302, H332)
 Causes skin irritation (H315)
 May cause an allergic skin reaction (H317)
 May cause respiratory irritation (H335)
 Toxic to aquatic life (H401)



HAZARD CLASSIFICATION

Health Hazards	Category	Physical Hazards	Category
Eye Damage/Irritation	2	None	-
Skin Sensitization	1		
Skin Corrosion/Irritation	2	Environmental Hazards	Category
Acute Toxicity, Oral	4	Hazardous to the Aquatic Environment – Acute	2
Acute Toxicity, Inhalation	4		
Specific Target Organ Toxicity, Single Exposure	3		

HAZARDS NOT REQUIRING CLASSIFICATION

Do not mix Lime-Sulfur Solution Agricultural Fungicide with acids or phosphate fertilizer products. Deadly and potentially extremely flammable hydrogen sulfide gas may be emitted. Contact with acids liberates toxic gas.

PRECAUTIONARY STATEMENTS

Avoid breathing mists/spray. Wash hands thoroughly after handling. Do not touch eyes. Do not eat, drink or smoke when using this product. Use only in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection and protective gloves. Keep out of reach of children. (P261+P264+P265+P270+P271+P272+P280+P102)

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 help. (P305+P351+P338+P337+P317)

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical help. Specific treatment: See Section 4 for additional medical information. Take off contaminated clothing and wash it before reuse. (P302+P352+P333+P317+P321+P362+P364)

IF SWALLOWED: Get medical help. Rinse mouth. (P301+P317+P330)

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help. (P304+P340+P317)

Avoid release to the environment not in accordance with the product label. Store locked up in a well-ventilated place. Keep container tightly closed. Dispose of contents / container using instructions in the product label and in accordance with local / Federal regulations. (P273+P405+P403+P233+P501)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS #	Composition
Lime Sulfur	Calcium sulfide (Ca(Sx))	1344-81-6	29.0%

NOTE: Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For medical emergencies involving this product, call toll free 1-866-374-1975. See Label for Additional Precautions and Directions for Use.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything to an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate gastric lavage.

5. FIREFIGHTING MEASURES

Flammability : Not available.

Fire and Explosion Hazards: No data available.

Extinguishing Medium: Water spray, dry chemical, foam, and carbon dioxide (CO₂). Fight larger fires with water spray or alcohol resistant foam.

Fire Fighting Equipment: Firefighters should be equipped with self-contained positive pressure breathing apparatus and full bunker gear.

Fire Fighting Instructions: Evacuate personnel and keep upwind of fire. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Do not allow run-off from firefighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Hazardous Combustion Products: When heated or diluted, hydrogen sulfide vapors will evolve. This gas may form explosive mixtures with air. Keep containers/storage vessels in fire area cooled with water spray.

NFPA Ratings: Health – 2 / Flammability – 1 / Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Isolate area and keep unnecessary and unprotected personnel from entering. Wear suitable personal protective clothing and equipment as described in Section 8 of this document. Ensure adequate ventilation.

Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.

Spill Cleanup: Dike spill using suitable absorbent or impervious materials such as sand or clay. Collect and contain contaminated absorbent and place in an appropriate container for disposal. Pump any free liquid into an appropriate closed container and decontaminate tools and equipment following cleanup. Collect washings for disposal.

7. HANDLING AND STORAGE

Handling: Do not get in eyes, on skin or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Storage: Keep pesticide in original container. Store product in a secure locked place, inaccessible to children, pets and livestock. **DO NOT** put concentrate or dilute into food or drink containers. Keep container in the shade. For help with any spill, leak, fire, or exposure involving this material call day or night CHEMTREC (800) 424-9300.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Protective Clothing: Wear coveralls over long-sleeved shirt and long pants, chemical resistant gloves (barrier laminate; butyl, nitrile, neoprene or natural rubber > 14 mils; polyethylene; polyvinyl chloride (PVC) > 14 mils; Viton >14 mils), chemical resistant footwear plus socks, goggles or face shield, chemical resistant headgear for overhead exposure, chemical resistant apron when mixing, loading or cleaning equipment or spills.

General: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	ruby red liquid	pH:	10.8
Melting point:	not available	Kinematic viscosity:	not available
Boiling point:	not available	Solubility (water):	dissolves with precipitation of elemental sulfur
Flammability:	not available	Partition coefficient:	not available
Flammability limits (upper/lower):	not applicable	Vapor pressure:	not available
Flash point (cc):	not available	Density:	10.59 lbs./gal
Auto-ignition temperature:	not available	Relative vapor density:	not available
Decomposition temperature:	not available	Particle characteristics:	not available
Odor:	strong odor of rotten eggs		

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Exposure to extreme heat or open flames.

CHEMICAL STABILITY: Stable to boiling point, will lose water above this temperature.

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizers such as nitrates, nitrites or chlorates can cause explosive mixtures if heated to dryness. Acids, acidic materials or dilution with water will cause the release of hydrogen sulfide, a highly toxic gas.

HAZARDOUS DECOMPOSITION PRODUCTS: Heating this product will evolve hydrogen sulfide vapors. Continued heating will also cause oxides of sulfur to be released.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY (rat LD₅₀): 820 mg/kg

DERMAL TOXICITY (rabbit LD₅₀): ≥ 2,000 mg/kg

INHALATION TOXICITY (rat LC₅₀): 3.1 mg/L (4 hours) (female)

EYE IRRITATION: Causes serious eye irritation

SKIN IRRITATION: Causes skin irritation

SKIN SENSITIZATION: May cause an allergic skin reaction

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE: May cause respiratory irritation.

CARCINOGENICITY:

EPA: Not likely to pose carcinogenic hazard to humans

ACGIH: Not Listed **NTP:** Not Listed

IARC: Not Listed **OSHA:** Not Listed

REPRODUCTIVE TOXICITY: There is no developmental or reproductive concern at dose levels that exceed the limit dose.

MUTAGENICITY / GENOTOXICITY: No data available.

12. ECOLOGICAL INFORMATION

This product is moderately toxic to aquatic animals.

The following information is for the active ingredient, Lime Sulfur:

AQUATIC TOXICITY - Acute

Rainbow Trout (96-hour LC₅₀): 2.4 mg/L
Bluegill Sunfish (96-hour LC₅₀): 14.1 mg/L
Fathead Minnow (96-hour LC₅₀): 9.2 mg/L
Water Flea (48-hour LC₅₀): 2.9 mg/L

AQUATIC TOXICITY - Chronic

Aquatic Invertebrate: 11.4 mg/L

AVIAN TOXICITY

Bobwhite Quail (Oral LD₅₀): 560 mg/kg-bodyweight
Bobwhite Quail (Dietary LC₅₀): >5,000 mg/kg

HONEYBEE TOXICITY

Honeybee (Oral LD₅₀): >25 µg a.i./bee

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your state Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Nonrefillable and refillable containers. See container label for container handling and disposal instructions. Dispose of contents /container to local and national hazardous waste disposal regulations.

14. TRANSPORT INFORMATION

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

US-DOT:

Not regulated

IMDG:

UN3082, Environmentally hazardous substance, liquid, N.O.S. (calcium polysulfides), 9, PG III, Marine Pollutant

IATA:

Not regulated

EMS Number:

Not listed

Note: In accordance with 49 CFR 171.4(c), non-bulk packagings (max capacity of 119 gal. (450 L) or less for liquids or 882 lbs. (400 kg) or less for solids) transported by motor vehicle, rail car or aircraft are excepted from all Marine Pollutants regulations in 49 CFR and therefore treated as non-hazardous material. All bulk shipments or any shipment transported partially or entirely by vessel are treated as regulated Marine Pollutants and are shipped according to the requirements listed.

15. REGULATORY INFORMATION

FIFRA –

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the GHS classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Corrosive. Causes irreversible eye damage. Harmful if swallowed or absorbed through skin. **DO NOT** get in eyes, on skin or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Drift may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

PHYTOTOXICITY AND NON-TARGET ORGANISM ADVISORY STATEMENT

This product may be toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect non-target plants, and the forage and habitat of non-target organisms, by following label directions intended to minimize spray drift.

PHYSICAL OR CHEMICAL HAZARDS

DO NOT mix Lime-Sulfur Solution Agricultural Fungicide with acids or phosphate fertilizer products. Deadly and potentially extremely flammable hydrogen sulfide gas may be emitted.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

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

Section 355 (extremely hazardous substances): Not listed.

SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

SARA Title III – Section 311/312 Hazard Categories

Immediate (Acute), Delayed (Chronic)

Section 313 (Toxic Release Reporting-Form R):

Not listed

CERCLA/SUPERFUND:

Not listed

California Proposition 65

This product does not contain any chemical known to the State of California to cause cancer or other reproductive harm.

RCRA Classification

Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

CANADA

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

The information and recommendations contained herein are provided in good faith and are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information herein.

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SDS Version: 3.5.1

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REVISIONS: Corrected shipping name.