



Finding New Ways to Improve the
Treatment of Trees and Plants.

SAFETY DATA SHEET

PRODUCT NAME: **Reliant[®] Systemic Fungicide**

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

DISTRIBUTOR: Quest Products Corporation
ADDRESS: 23611 Linwood Road (K-32)
Linwood, KS 66052
PHONE: (785)-542-2577

EMERGENCY CHEMTREC PHONE - US & Canada: 1-800-424-9300

CHEMICAL NAME: Reliant Systemic Fungicide
CHEMICAL FAMILY: Fungicide
CHEMICAL FORMULA: Proprietary mixture

PRODUCT USE: Fungicide

SECTION 1 NOTES: Other means of identification: SDS# EPA Reg No 83416-1

SECTION 2: HAZARDS IDENTIFIED

GHS Ratings:

Signal Word: **WARNING**

GHS Hazards

H319 - Causes serious eye irritation.
H302 - Harmful if swallowed.
H412 - Harmful to aquatic life with long-lasting effects.

GHS Precautions

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P233 - Keep container tightly closed.
P234 - Keep only in original container.
P261 - Avoid breathing fumes/vapors.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing and eye protection.
P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P305+313+337+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so, then continue rinsing. If eye irritation persists, seek medical advice or attention.



SECTION 3: COMPONENT INFORMATION

INGREDIENT	CAS NO.	% WT
Phosphorus Acid	10294-56-1	Proprietary
Potassium Hydroxide	1310-58-3	Proprietary
Proprietary Formulation Ingredients		100%

SECTION 3 NOTES: If Chemical Name/CAS Number is listed as "Proprietary" and/or the Weight % is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

CARCINOGENICITY

OSHA: No ACGIH: No NTP: No IARC: No OTHER: No

SECTION 4: FIRST AID MEASURES

Have the product container & SDS with you when calling a poison control center or doctor, or going for treatment, if able. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

IF IN EYES: Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do so, after the first 5 minutes - then continue rinsing. If irritation develops or persists, seek medical advice or attention.

IF ON SKIN OR CLOTHING: Take off contaminated clothing, wash before reuse. Wash skin with plenty of soap and water. Seek medical advice/attention if irritation develops or persists.

IF SWALLOWED: DO NOT INDUCE VOMITING. Call a poison control center immediately. Unless advised otherwise by a poison control center or doctor, have person rinse mouth with water, if able.

IF INHALED: Remove to fresh air and ventilate suspected area. Keep at rest in a position comfortable for breathing. Seek medical attention if difficulty breathing develops, condition declines, or symptoms persist.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Treat symptomatically.

SECTION 4 NOTES: May cause eye, skin and respiratory tract irritation.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT °C: Not applicable.

IN CASE OF FIRE: Use carbon dioxide or dry chemical for small fires and water fog or foam (alcohol, polymer, or ordinary) for large fires. Water stream may spread flames.

SPECIAL FIRE FIGHTING PROCEDURES: Use alcohol-type or universal-type foams on larger fires. Smaller fires should be extinguished with carbon dioxide or dry chemical. Do not use water or foam directly on the fire. Use self-contained breathing apparatus with fighting any fire in an enclosed area.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Do not use water or foam directly on the fire.

HAZARDOUS COMBUSTION PRODUCTS: When ignited, emits toxic fumes.

SECTION 5 NOTES: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH

SECTION 6: ACCIDENTAL RELEASE MEASURES

(approved or equivalent) and full protective gear.

ACCIDENTAL RELEASE MEASURES: Stop the source of the spill immediately if it safe to do so. Ventilate the affected area. Wear protective clothing as described in Section 8 of this SDS. Avoid runoff into storm sewers and ditches which lead to waterways. Material should be collected and disposed in proper manner.

CLEAN-UP MEASURES: Follow federal, state and local regulations for liquid and solid waste disposal. Sweep up absorbed material and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state and local regulations. Wear suitable protective equipment.

SECTION 6 NOTES: Do not breathe dust. Do not get in eyes, on skin or on clothing. See section 1 for CHEMTREC emergency phone number. See Section 12 for additional Ecological Information.

SECTION 7: HANDLING AND STORAGE



HANDLING Keep out of reach of children. Read label before use. Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not eat, drink or smoke when using this product. Avoid direct contact with substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid breathing spray mist. Wash hands thoroughly after handling. Take off contaminated clothing and wash before reuse. Wear protective gloves, protective clothing, eye protection and face protection.

STORAGE: Store in a cool, dry, well-ventilated place. Keep in original container tightly closed. Do not reuse empty container. Do not store with food, feed, or other material to be used or consumed by humans or animals. Do not contaminate water supplies.

SECTION 7 NOTES: **INCOMPATIBLE MATERIALS** – Strong oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

EXPOSURE GUIDELINES:	Potassium Hydroxide (1310-58-3) ACGIL TLV – Ceiling: 2mg/m3 - OSHA PEL (Vacated) Ceiling: 2mg/m3 NIOSH IDLH Ceiling: 2mg/m3
VENTILATION:	Normal room ventilation (mechanical) or outdoor use should be satisfactory.
RESPIRATORY PROTECTION:	Wear a NIOSH/OSHA approved respirator, approved for use with propionic acid, if necessary.
EYE PROTECTION:	Safety glasses with side shields as described by OSHA's eye and face protection regulations in 29CFR 1910.133. 
SKIN PROTECTION:	Wear impervious protective clothing, long pants and long-sleeved shirt, waterproof gloves (including socks and boots), lab coat, apron or coveralls, as appropriate – to prevent skin contact. 
OTHER PROTECTIVE CLOTHING/EQUIPMENT:	Eye wash and safety shower should be easily accessible.
WORK HYGIENIC PRACTICES:	Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse.
EXPOSURE GUIDELINES:	If exposed, see section 4 for acute exposure first aid.
SECTION 8 NOTES:	None

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear Liquid	FLAMMABLE LIMITS:	Not Determined
ODOR:	Odorless	VAPOR PRESSURE (mmHg):	@ Unknown F: N/A C: N/A
ORDER THRESHOLD:	Undetermined	VAPOR DENSITY (AIR = 1):	@ Unknown F: N/A C: N/A
PHYSICAL STATE:	Liquid	SPECIFIC GRAVITY:	1.38
pH AS SUPPLIED:	5.04	EVAPORATION RATE:	N/A
pH (Other):		BASIS (butyl acetate=1):	
INITIAL BOILING POINT:	F: Not Determined C: Not Determined	SOLUBILITY IN WATER:	Unknown
BOILING POINT RANGE:	F: Not Determined C: Not Determined	PARTITION COEFFICIENT (n-octanol/water):	No Data Available
MELTING POINT:	F: Not Determined C: Not Determined	AUTO-IGNITION TEMPERATURE:	N/A
FREEZING POINT:	F: Not Determined C: Not Determined	DECOMPOSITION TEMPERATURE:	N/A
METHOD USED:	N/A	VISCOSITY:	Non-viscous
FLASH POINT:	F: Not Determined C: Not Determined		
FLAMMABILITY (solid, gas):	N/A – Liquid		

SECTION 9 NOTES: VALUES ARE NOT PRODUCT SPECIFICATIONS.

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable <input checked="" type="radio"/> Unstable <input type="radio"/>	
CONDITIONS TO MAINTAIN STABILITY:		Store in a cool, well-ventilated place away from sources of heat and direct sunlight. Keep container tightly closed. Keep only in original container.
INCOMPATIBILITY (MATERIAL TO AVOID):		Strong oxidizing agents.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:		None known based on information supplied.
HAZARDOUS POLYMERIZATION:		Will not occur.
CONDITIONS TO AVOID (POLYMERIZATION):		None known.
SECTION 10 NOTES:		None.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY:	Harmful if swallowed. May harm mucosal membranes.
ACUTE DERMAL TOXICITY:	Prolonged contact may cause redness and/or irritation.
ACUTE INHALATION TOXICITY:	Harmful if inhaled. Avoid breathing in vapors or mists.
EYE DAMAGE / IRRITATION:	Direct contact with eyes will cause temporary irritation.
SKIN CORROSION:	Not classified.
RESPIRATORY SENSITIZATION:	Not classified.
CARCINOGENITY:	Not determined.
COMPONENT INFORMATION:	Potassium Hydroxide (1310-58-3) ORAL LD ₅₀ : 284 mg/kg (Rat) DERMAL LD ₅₀ : --- INHALATION LD ₅₀ : ---

SECTION 11 NOTES: None.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:	Harmful to aquatic life with long lasting effects. 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 wash waters or rinsate.
COMPONENT INFORMATION:	Potassium Hydroxide (CAS#1310-58-3) 80: 96 h Gambusia affinis, mg/L LC50 static (Fish)
MOBILITY:	Potassium Hydroxide (CAS#1310-58-3) Partition Coefficient 0.65/0.83
PERSISTENCE/DEGRADABILITY:	Not Determined.
BIOACCUMULATION:	Not Determined.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Do not contaminate water, food or feed by storage or disposal. Dispose of contents in container to an approved waste disposal facility in accordance with all federal, state and local regulations.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container.

Containers with a capacity of equal to or less than 5 gallons:

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows:

- 1) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip.
- 2) Fill the container ¼ full with water and recap. Shake for 10 seconds.
- 3) Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip.
- 4) Repeat this procedure two more times.

Containers with a capacity of greater than 5 gallons:

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows:

- 1) Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures.
- 2) Tip the container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times.
- 3) Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal.
- 4) Repeat this procedure two more times.
- 5) Offer for recycling (if available) or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or – if allowed by state and local authorities – by burning. **if burned, keep out of smoke.**

RCRA HAZARD CLASS: Not subject to RCRA Subtitle C Regulation

CALIFORNIA HAZARDOUS WASTE STATUS: Potassium Hydroxide (CAS#1310-58-3) Toxic, Corrosive.

SECTION 13 NOTES: None.

SECTION 14: TRANSPORT INFORMATION**U.S. DEPARTMENT OF TRANSPORTATION**

DOT Shipping Description: Not Regulated.

U.S. Surface Freight Classification: NMFC 101716, class 50 (Liquid). Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

OTHER AGENCIES: None.

SECTION 14 NOTES: Please see current shipping paper for most up-to-date shipping information, including exemptions and special circumstances.

SECTION 15: REGULATORY INFORMATION**EPA FIFRA INFORMATION**

This chemical is a pesticide product registered by the United States Environmental Protection Agency, and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for Safety Data Sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Phosphorous acid	*	X		Present		Present	X	Present	X	X
Potassium hydroxide	*	X		Present		Present	X	Present	X	X

Legend:

**This product is exempted from TSCA because it is solely for FIFRA regulated use.*

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical

Substances KECL - Korean Existing and Evaluated

Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US FEDERAL REGULATIONS**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):**

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Potassium hydroxide 1310-58-3	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Potassium hydroxide	1000 lb			X

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Potassium hydroxide 1310-58-3	X	X	X

INTERNATIONAL REGULATIONS: None

SECTION 15 NOTES: Harmful if swallowed, absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist or vapors. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse. Wear the appropriate Personal Protective Equipment (PPE).

SECTION 16: OTHER INFORMATION

DATE OF PREPARATION/LAST REVISION: September 3rd, 2024

OTHER INFORMATION:

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is labeled in accordance with regulations administered by the Consumer Product Safety Commission (CPSC).

The use pattern and exposure in the workplace are generally not consistent with those experienced by consumers. The requirements of the Occupational Safety and Health Administration applicable to this SDS differ from the labeling requirements of the CPSC, and, as a result, this SDS may contain additional health hazard information not pertinent to consumer use and not found on the product label.

DISCLAIMER

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its preparation. While we strive to ensure the accuracy and completeness of the information provided, we make no warranties or representations, express or implied, about the accuracy, reliability, or completeness of the data. All data included in this document is released as typical values and should not be utilized to determine the suitability of this material for a particular use or purpose. The SDS may not encompass all possible scenarios or conditions under which the chemicals might be used or encountered. Users are responsible for ensuring that they have the most current version of this SDS and for understanding its contents. Each user should identify his intended uses of this material and determine whether they are appropriate. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release – and is not to be considered permission, inducement or recommendation to practice any patented invention without a license. The information relates only to the specific material designated, and may not be valid for such material used in combination with any other materials, or in any process, unless specified in the text. All data is offered for consideration, investigation and verification purposes only. To the extent permitted by applicable law, the manufacturer shall not be liable for any direct, indirect, incidental, or consequential damages arising out of the use or misuse of the chemicals described in this SDS. The responsibility for the safe use, handling, storage, and disposal of these chemicals lies solely with the user. It is the user's obligation to comply with all local, state, and federal regulations and to take appropriate measures to ensure the safety of personnel and property. To the extent permitted by applicable law, Quest Products LLC's liability shall in all circumstances be limited to replacement of product or a refund of the purchase price thereof.

This SDS is intended to comply with OSHA regulations under the Hazard Communication Standard (29 CFR 1910.1200) and other applicable regulatory requirements. Users are encouraged to consult additional resources and seek professional advice to ensure comprehensive compliance with all relevant health, safety, and environmental regulations. This SDS may be updated periodically to reflect new information or regulatory changes. Users should ensure they are referring to the most recent version of the SDS. Inclusion of any specific product, material, or process in this SDS does not imply endorsement or approval by the manufacturer. The information provided is not intended to replace professional judgment or regulatory advice.