

1. IDENTIFICATION

Product Identifier

Product Name RELIANT® Systemic Fungicide

Other means of identification

SDS # EPA Registration No. 83416-1

Recommended use of the chemical and restrictions on use

Recommended Use Fungicide

Details of the supplier of the safety data sheet

Manufacturer:

Quest Products LLC
11712 230th St
Linwood, KS 66052

Company Phone Number Business Phone: 785-542-2577
Fax Phone: 785-542-2531

Emergency Telephone 785-542-2577

2. HAZARDS IDENTIFICATION

Appearance Light Blue to Clear **Physical State** Liquid **Odor** Slight Odor

Classification

Acute toxicity - Oral	Category 4
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Signal Word Warning

Hazard Statements

Harmful if swallowed



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Precautionary Statements - Response

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician Rinse mouth

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Phosphorous acid	10294-56-1	Proprietary
Potassium hydroxide	1310-58-3	Proprietary

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

- General Advice** Provide this SDS to medical personnel for treatment.
- Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
- Skin Contact** Wash off immediately with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- Inhalation** Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician / poison center if individual's condition declines or if symptoms persist.
- Ingestion** Do not induce vomiting. Rinse mouth. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

Most important symptoms and effects

- Symptoms** May cause eye, skin and respiratory tract irritation.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician** Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical Product is not flammable.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Ventilate affected area. Wear protective clothing as described in Section 8 of this safety data sheet. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.
Environmental Precautions	See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so. Soak up and contain spill with an inert (i.e. vermiculite, dry sand or earth) absorbent material.
Methods for Clean-Up	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.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Do not eat or drink while handling this material. Do not contaminate water, food or feed by storage or disposal.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
Incompatible Materials	Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m ³	(vacated) Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³

Appropriate engineering controls

Engineering Controls	Maintain eye wash fountain and quick-drench facilities in work area.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	Use safety goggles, safety glasses with side shields and/or a full face shield as described by OSHA's eye and face protection regulations in 29CFR 1910.133.
Skin and Body 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.
Respiratory Protection	Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator.
General Hygiene Considerations	Harmful if swallowed, absorbed through skin or inhaled. Avoid contact with skin, eyes and clothing. Avoid breathing spray mist or vapors. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Odorless
Appearance	Clear liquid		
Color	Clear	Odor Threshold	Not determined

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
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pH	5.04	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.38	(1=Water)
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal conditions.

Conditions to Avoid

Keep away from heat, sparks and open flame.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Eye Contact	Direct contact with eyes may cause temporary irritation.
Skin Contact	Prolonged contact may cause redness and irritation.
Inhalation	Avoid breathing vapors or mists.
Ingestion	May cause irritation to mucous membranes.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium hydroxide 1310-58-3	= 284 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Potassium hydroxide 1310-58-3		80: 96 h Gambusia affinis mg/L LC50 static		

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Potassium hydroxide 1310-58-3	0.65 0.83

Other Adverse Effects

Not determined.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Contaminated Packaging 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: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. 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. 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: empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth, insuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. 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. Repeat this procedure two more times. 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.

14. TRANSPORT INFORMATION

Note	Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
DOT	Not regulated
IATA	Not regulated
IMDG Marine Pollutant	This material may meet the definition of a marine pollutant

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.

CAUTION. 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).

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

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	CWAToxic Pollutants	CWA - Priority Pollutants
Potassium hydroxide	1000 lb	-	

State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards 1	Flammability 0	Instability 0	Special Hazards Not determined
<u>HMIS</u>	Health Hazards 1	Flammability 0	Physical Hazards 0	Personal Protection Not determined

Issue Date: 12-04-2013
Revision Date: 01-29-2024
Revision Note: GHS Compliant

Warranty and Disclaimer

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End of Safety Data Sheet