

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : PROTHIOCONAZOLE 4L SELECT
Product code : 1000558

1.2. Other means of identification

Registration Number : EPA Reg. No. 89442-61

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Fungicide
Restrictions on use : It is a violation of Federal law to use this product in a manner inconsistent with its label, Use in accordance with label directions for use.

1.4. Supplier's details

Albaugh, LLC
1525 NE 36th Street
Ankeny, Iowa 50021
United States
T 800-247-8013
ContactUS@albaughllc.com - albaughllc.com

1.5. Emergency phone number

Emergency number : For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident:
• Call CHEMTREC Day or Night within USA and Canada: 1-800-424-9300, Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

For Medical Emergencies Only:
• Call Albaugh LLC Day or Night within USA and Canada: 1-888-347-6732
24 hours a day, 7 days a week

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (inhalation:dust,mist), Category 4 H332 Harmful if inhaled.
Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H332 - Harmful if inhaled
Precautionary statements (GHS US) : P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.
P271 - Use only outdoors or in a well-ventilated area.

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P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a poison center or doctor if you feel unwell.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Other Ingredients (non-hazardous, proprietary) (Additive)	-	50.5 – 53	Not classified
prothioconazole (ISO); 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-3H-1,2,4-triazole-3-thione (Active substance (Biocide))	CAS-No.: 178928-70-6	39.7 - 42.2	Not classified
glycerol (Additive)	CAS-No.: 56-81-5	5.7 – 6.3	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general : Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.
Personal protection for first-aid responders. : First aid workers will be equipped with suitable personal protective equipment.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : Harmful if inhaled.
Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : None under normal conditions.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment : Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapors/spray.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.
Environmental precautions : Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

For further information refer to section 13.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

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7.2. Conditions for safe storage, including incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Keep cool. Protect from sunlight.
Packaging materials	: Always store product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

PROTHIOCONAZOLE 4L SELECT	
USA - OSHA - Occupational Exposure Limits	
Local name	Glycerin (mist)
OSHA PEL TWA	15 mg/m ³ (Total dust) 5 mg/m ³ (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - Cal/OSHA - Occupational Exposure Limits	
Local name	Glycerin mist
Cal/OSHA PEL (OEL TWA)	10 mg/m ³ (Total dust) 5 mg/m ³ (Respirable fraction)
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1)

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



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SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid. White. Opaque.
Color	: White
Odor	: Latex Paint Like
Odor threshold	: No data available
pH	: 4.9
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 100 °C
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1.163 g/ml
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 903.54 mm ² /s
Explosion limits	: No data available
Explosive properties	: Not Explosive.
Oxidizing properties	: Not oxidising.
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

PROTHIOCONAZOLE 4L SELECT	
LD50 oral rat	3129 mg/kg
ATE US (oral)	3129 mg/kg body weight
ATE US (dust, mist)	1.5 mg/l/4h

glycerol (56-81-5)	
LD50 oral rat	27200 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Female, Experimental value, Oral, 10 day(s))
LD50 dermal	56750 mg/kg (4 day(s), Guinea pig, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5.85 mg/l (Equivalent or similar to OECD 412, 4 h, Rat, Male / female, Experimental value, Inhalation (mist), 14 day(s))
ATE US (oral)	27200 mg/kg body weight
ATE US (dermal)	56750 mg/kg body weight

Skin corrosion/irritation : Not classified
Causes skin irritation
pH: 4.9

glycerol (56-81-5)	
pH	5.5 – 8

Serious eye damage/irritation : Not classified
Causes eye irritation
pH: 4.9

glycerol (56-81-5)	
pH	5.5 – 8

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

PROTHIOCONAZOLE 4L SELECT	
Viscosity, kinematic	903.54 mm ² /s

glycerol (56-81-5)	
Viscosity, kinematic	1121 mm ² /s (20 °C, Calculated)

Symptoms/effects after inhalation : Harmful if inhaled.
Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : None under normal conditions.

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SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

glycerol (56-81-5)	
LC50 - Fish [1]	54000 mg/l (96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 10000 mg/l (24 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

12.2. Persistence and degradability

PROTHIOCONAZOLE 4L SELECT	
Persistence and degradability	Not rapidly degradable
prothioconazole (ISO); 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-3H-1,2,4-triazole- 3-thione (178928-70-6)	
Persistence and degradability	Not rapidly degradable
glycerol (56-81-5)	
Persistence and degradability	Readily biodegradable in water.
Other Ingredients (non-hazardous, proprietary)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

glycerol (56-81-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.8 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

glycerol (56-81-5)	
Surface tension	63.4 mN/m (20 °C, 1000 g/l)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

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SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14 Transport information

DOT	
No supplementary information available	
14.1. UN number	Not regulated
14.2. Proper Shipping Name	Not regulated
14.3. Transport hazard class(es)	Not regulated
14.4. Packing group	Not regulated
14.5. Environmental hazards	Not regulated

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
prothioconazole (ISO); 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-3H-1,2,4-triazole- 3-thione	178928-70-6	Not present	-	
glycerol	56-81-5	Not present	-	
Other Ingredients (non-hazardous, proprietary)		Not present	-	

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

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FIFRA Labelling	
EPA Registration Number	89442-61
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 classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.	
FIFRA Signal Word	Caution
FIFRA Precautionary Statement	KEEP OUT OF REACH OF CHILDREN. Hazards To Humans and Domestic Animals.
FIFRA Human Health Hazards	Harmful if swallowed or inhaled. Avoid breathing spray mist. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Avoid contact with eyes or clothing. Wear long-sleeved shirt and long pants, socks and shoes. Remove and wash contaminated clothing before reuse.
FIFRA First Aid	<p>IF SWALLOWED:</p> <ul style="list-style-type: none">•Immediately call a poison control center or doctor for treatment advice.•Do not induce vomiting unless told to do so by a poison control center or doctor.•Have person sip a glass of water if able to swallow.•Do not give anything by mouth to an unconscious person. <p>IF IN EYES:</p> <ul style="list-style-type: none">•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. <p>IF INHALED:</p> <ul style="list-style-type: none">•Move person to fresh air.•If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible.•Call a poison control center or doctor for further treatment advice. <p>NOTE TO PHYSICIAN: No specific antidote. Treat symptomatically.</p>
FIFRA Environmental Hazards	<p>This product is toxic to estuarine/marine invertebrates, and freshwater/estuaries/marine aquatic plants. DO NOT apply directly to water, or 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.</p> <p>Ground Water Advisory: Prothioconazole-desthio (a degradate of prothioconazole) is known to leach through soil into ground water under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.</p> <p>Surface Water Advisory: Drift and runoff are hazardous to aquatic organisms in water adjacent to treated areas. This product has a high potential for runoff for several months or more after application. Poorly draining soils and soils with shallow watertables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.</p>
FIFRA Physical Hazard	DO NOT mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

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FIFRA Labelling

FIFRA Other

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert to prevent leakage. If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. DO NOT walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed on site or at an approved waste disposal facility.

15.2. International regulations

CANADA

prothioconazole (ISO); 2-[2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2,4-dihydro-3H-1,2,4-triazole- 3-thione (178928-70-6)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date : 2/16/2026

Full text of hazard classes and H-statements

H332	Harmful if inhaled
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NFPA health hazard

: 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

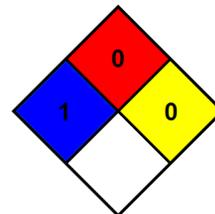
NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.

Hazard Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 0 Minimal Hazard - Materials that will not burn



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Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

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