

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:	EMERGENCY TELEPHONE NUMBERS:
RedEagle International LLC 5143 S. Lakeland Drive - Suite 4 Lakeland, FL 33813	(800) 424-9300 (CHEMTREC, transportation and spills) (800) 222-1222 American Association of Poison Control Centers
PRODUCT NAME:	RedEagle Prothioconazole 480SC
CHEMICAL NAME:	Prothioconazole :2-[2-(1-chlorocyclopropyl)-3-(2-Chlorophenyl)-2-hydroxypropyl]-1,2-dihydro-3H-1,2,4-triazole-3-thione
PRODUCT USE:	Fungicide
PRODUCT CODE:	EPA Reg. No. 103087-21-85678

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

Precautionary statements

Protect from sunlight.

Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.

No health hazards not otherwise classified

SECTION 3 – COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS No.
Prothioconazole	41	178928-70-6
Other ingredients	59	

SECTION 4 - FIRST AID MEASURES

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. Do not induce vomiting unless told to do so by poison control center or doctor. Do not give any liquid to a person. Do not give anything by mouth 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 mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN: If ingested, probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote. Treat symptomatically.

Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE AND EXPLOSION HAZARD: Can release irritating and toxic gases such as hydrogen chloride, hydrogen fluoride, nitrogen oxide in a fire.

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Minimize use of water to prevent environmental contamination.

FIRE FIGHTING EQUIPMENT: Full firefighting turn-out gear (Bunker gear) including self-contained breathing apparatus with full face piece.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of soil, surface water, or ground water. Clean up spills immediately. Observe precautions in Section 8 of this document. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills with sand, vermiculite, or other absorbent inert ingredients. Place material in a container for proper disposal.

LARGE SPILL: Dike spill using absorbent or impervious material such as clay or sand. Recover and contain as much as possible for reuse or disposal. Allow absorbed material to solidify and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent for disposal. Minimize use of water to prevent environmental contamination.

CAUTION: Minimize use of water to prevent runoff into municipal sewers or other open bodies of water and minimize environmental contamination. Be sure to isolate any contaminated water. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

SECTION 7 - HANDLING AND STORAGE**KEEP OUT OF REACH OF CHILDREN!**

HANDLING: Use only in a well-ventilated area. Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing if pesticide gets inside clothing. Then wash thoroughly and put on clean clothing. Remove PPE after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Do not reuse container.

STORAGE: Keep pesticide in original container. Keep container tightly closed when not in use. Store in a locked storage area. Avoid cross contamination with other pesticides or fertilizers during handling and storage. Store in a cool, dry place. Do not contaminate water, feed, or food by storage and disposal. Do not store diluted spray.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: Protective eyewear

SKIN PROTECTION: Long-sleeved shirt and long pants, shoes plus socks, and chemical-resistant gloves.

RESPIRATOR: Normally not required. If handling in an enclosed environment where vapors or mists may exceed acceptable levels, wear NIOSH approved air-purifying respirator approved for pesticides.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturers' instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White viscous liquid
Odor:	Odorless
Melting/Freezing Point:	Not determined
pH:	5.0-8.0
Solubilities:	Not determined
Flash point:	No flash point until the test substance heated at 150 °C
Explosive properties:	Non-explosive
Relative Density:	1.15-1.17 (9.60-9.70 lb/gal)
Viscosity:	Non-Newtonian fluid Spindle speed: 20 RPM, Viscosity: 997.0 mPa • s at 20 °C Spindle speed: 100 RPM, Viscosity: 346.6 mPa • s at 20 °C Spindle speed: 20 RPM, Viscosity: 883.0 mPa • s at 40 °C Spindle speed: 100 RPM, Viscosity: 301.4 mPa • s at 40 °C
Oxidation	The test substance is compatible with water, monoammonium phosphate, zinc powder and kerosene; incompatible with potassium Permanganate.

* Listed density is an approximate value and does not necessarily represent that of a specific batch.

SECTION 10 - STABILITY AND REACTIVITY

PRODUCT REACTIVITY:	Non-reactive
CHEMICAL STABILITY:	Stable under recommended storage conditions.
HAZARDOUS REACTION/POLYMERIZATION:	Product will not undergo polymerization.
CONDITIONS TO AVOID:	Elevated temperature, direct sunlight and freezing
INCOMPATIBLE MATERIALS:	Oxidizing materials.
HAZARDOUS DECOMPOSITION PRODUCTS:	No decomposition products expected under normal conditions of use.

SECTION 11 - TOXICOLOGICAL INFORMATION

Exposure routes	Eye contact, Ingestion, Inhalation, Skin contact
Immediate Effects	
Eye	Causes moderate eye irritation.
Skin	May cause slight irritation.
Ingestion	Harmful if swallowed.
Inhalation	Harmful if inhaled.
Information on toxicological effects	
Acute oral toxicity	LD50 (female Rat) > 2,000 - < 5,000 mg/kg
Acute inhalation toxicity	LC50 (male/female combined Rat) > 1.6 mg/l
Acute dermal toxicity	LD50 (male/female combined Rat) > 5,000 mg/kg
Skin corrosion/irritation	Slight irritating effect - does not require labelling. (Rabbit)
Serious eye damage/eye irritation	Minimally irritating. (Rabbit)
Respiratory or skin sensitization	Non-sensitizing. (Guinea pig)
Assessment STOT Specific target organ toxicity – single exposure	Prothioconazole: Based on available data, the classification criteria are not met
Assessment STOT Specific target organ toxicity – repeated exposure	Prothioconazole did not cause specific target organ toxicity in experimental animal studies
Assessment mutagenicity	Prothioconazole was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.
Assessment carcinogenicity	Prothioconazole was not carcinogenic in lifetime feeding studies in rats and mice
Assessment toxicity to reproduction	Prothioconazole caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Prothioconazole is related to parental toxicity.
Assessment developmental toxicity	Prothioconazole caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Prothioconazole are related to maternal toxicity.
Aspiration hazard	Based on available data, the classification criteria are not met.
Further information	Only acute toxicity studies have been performed on the formulated product. The non-acute information pertains to the active ingredient(s).

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Birds (<i>Coturnix japonica</i>)	Acute oral LD ₅₀ : > 2000 mg/kg-bwt
Fish (<i>Cyprinus carpio</i>)	96-hour LC ₅₀ : 4.845 mg/L
Daphnia	48-hour LC ₅₀ : 2.8438 mg/L
Water algae (<i>Raphidocelis subcapitata</i>)	72-hour EyC ₅₀ : 1.6700 mg/L 72-hour ErC ₅₀ : 4.7963 mg/L
Honeybees	Contact LC ₅₀ (48h) :> 100 µg/bee

	Oral LC ₅₀ (48h): >100 µg/bee
Earthworms	LC ₅₀ (14d): > 1000 mg/kg dry artificial soil
Biodegradability	Prothioconazole: Not rapidly biodegradable
Koc	Prothioconazole: Koc: 1765
Bioaccumulation	Prothioconazole: Bioconcentration factor (BCF) 19 Does not bioaccumulate.
Mobility in soil	Prothioconazole: Slightly mobile in soils
Results of PBT and vPvB assessment	
PBT and vPvB assessment	Prothioconazole: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Additional ecological information	No other effects to be mentioned.
Environmental precautions	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 surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not allow to get into surface water, drains and ground water. Apply this product as specified on the label.

SECTION 13 - DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE DISPOSAL: Excess pesticide spray, mixture, or rinsate resulting from the use of this product can be disposed of onsite according to label instructions or at an approved waste disposal facility. Improper disposal is a violation of Federal Law.

CONTAINER DISPOSAL: Non-refillable container: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Refer to the product label for additional and complete Container Handling instructions.

SECTION 14 - TRANSPORT INFORMATION

DOT: Not regulated

IMDG:

UN/ID no UN3082
 Proper shipping name Environmentally hazardous substance, n.o.s.
 Hazard Class 9
 Packing Group III
 Description UN3082, Environmentally hazardous substance, n.o.s.

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Not applicable

SARA TITLE III

311/312 HAZARD CATEGORY: None

313 REPORTABLE INGREDIENTS: None

TSCA Complies

SECTION 16 - OTHER INFORMATION**NFPA (National Fire Protection Association) HAZARD RATINGS**

HEALTH	FLAMMABILITY	REACTIVITY
1	1	0

4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal

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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. This data sheet is not a guarantee of safety. Users are responsible for insuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.