

RUGER™

1 EC

SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)

1. IDENTIFICATION

PRODUCT NAME: Ruger 1 EC
DESCRIPTION: A liquid miticide
EPA Reg. No.: 91234-37
COMPANY IDENTIFICATION: Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

2. HAZARD IDENTIFICATION

WARNING

Causes eye irritation
Causes mild skin irritation
May be harmful if inhaled
Toxic to aquatic life

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS #	Composition
Hexythiazox	trans-5-(4-chlorophenyl)-N-cyclohexyl-4-methyl-2-oxo-3-thiazolidinecarboxamide	78587-05-0	11.8%

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-424-9300 for emergency medical treatment information.

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 advice/attention.

IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a doctor or poison control center if you feel unwell.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor or poison control center if you feel unwell.

NOTE TO PHYSICIAN: May pose an aspiration pneumonia hazard. Contains petroleum distillate.

5. FIREFIGHTING MEASURES

Flash Point: > 100°C

Flammable Limits (LFL-UFL): Not determined

Fire and Explosion Hazards: Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

Extinguishing Medium: Water fog, foam, dry chemical or carbon dioxide (CO₂).

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

Fire Fighting Instructions: Evacuate area of all unnecessary personnel and fight fire from a safe distance upwind. Contain contaminated water / firefighting water; do not allow to enter drains or waterways. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

NFPA Ratings: Health – 1 / 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.

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 earth, sand, vermiculite 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: Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

Storage: Do not contaminate water, food or feed by storage or disposal. Keep this product in its tightly closed original container. Do not use or store this product near heat or open flame. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals, and away from other pesticides, fertilizers, food, or feed.

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: Applicators and other handlers must wear long-sleeved shirt and long pants, chemical-resistant gloves such as barrier laminate, nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), or Viton (≥ 14 mils), and shoes plus socks.

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

Physical State: Pale yellow liquid

Odor: Mild aromatic

Flashpoint: $> 100^{\circ}\text{C}$

pH: 5.0-6.0

Density: 1.012 g/mL

Solubility: No data

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Excessive heat ($> 38^{\circ}\text{C}$, $> 100^{\circ}\text{F}$) for prolonged periods of time or open flame.

CHEMICAL STABILITY: Stable under all normal use and storage conditions. May decompose if heated.

INCOMPATIBILITY WITH OTHER MATERIALS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: This product is chemically stable and no hazardous reactions should occur if stored and handled as prescribed / indicated. Thermal decomposition can lead to the formation of hydrogen chloride, carbon monoxide, and nitrogen oxides.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY (rat LD_{50}): $> 5,000$ mg/kg

DERMAL TOXICITY (rat LD_{50}): $> 5,000$ mg/kg

INHALATION TOXICITY (rat LC_{50}): > 2.0 mg/L (4-hour)

EYE IRRITATION: Moderately irritating

SKIN IRRITATION: Moderately irritating

SKIN SENSITIZATION: Not a contact sensitizer

CARCINOGENICITY:

EPA: Not Listed

ACGIH: Not Listed

NTP: Not Listed

IARC: Not Listed

OSHA: Not Listed

MUTAGENIC TOXICITY: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

REPRODUCTIVE TOXICITY: Not known to cause reproductive or birth defects at normal exposure levels.

12. ECOLOGICAL INFORMATION

This pesticide is toxic to fish and aquatic invertebrates.

The following information is for the active ingredient, hexythiazox:

AQUATIC TOXICITY

Rainbow trout (96h LC_{50}): > 300 mg/L

Bluegill (96h LC_{50}): 11.6 mg/L

Daphnia (48h LC_{50}): 1.2 mg/L

AVIAN TOXICITY

Bobwhite Quail (8d LC_{50}): > 5620 mg/kg

Mallard Duck (8d LC_{50}): $> 5,620$ mg/kg

OTHER TOXICITY

Bees: not toxic to bees

13. DISPOSAL CONSIDERATIONS

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

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Refer to the product label for specific container disposal instructions.

14. TRANSPORT INFORMATION

US DOT (shipments by ground):

Not regulated

IMDG (shipments by vessel):

Not regulated

IATA (shipments by air):

Not regulated

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 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

CAUTION. Contains petroleum distillates. Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or when disposing of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame.

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.

SARA Title III - Section 302 Extremely Hazardous Substances

Not listed

SARA Title III - Section 311/312 Hazard Categories

Immediate

SARA Title III - Section 312 Threshold Planning Quantity

The threshold planning quantity (TPQ) for this product treated as a mixture is 10,000 lbs. This product contains no ingredients with a TPQ of less than 10,000 lbs.

SARA Title III - Section 313 Reportable Ingredients

None

CERCLA Reportable Quantity (RQ) -

None

CALIFORNIA PROP 65 STATUS -

This product does not contain any chemicals known to the state of California to cause cancer or reproductive harm.

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

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.

To the extent consistent with applicable law, neither Atticus, LLC nor Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ATTICUS, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ATTICUS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SDS Version: 1.0

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