

Hexazinone 240 SL

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Hexazinone 240 SL
Pesticide Classification: Herbicide
UN No.: 1170

Supplier

Enviro Bio-Chem (Pty) Ltd
Co. Reg. No.: 2013/194774/07
44 Kerk Street, Lichtenburg
North West, South Africa 2740

Registration Holder

Erintrade CC t/a RT Chemicals
Co. Reg. No.: CK2001/036403/23
44 Kerk Street, Lichtenburg
North West, South Africa 2740

Telephone: +27 87 231 7261
Fax: 086 541 7948
Website: www.envirobiochem.co.za

24 Hr Emergency Number: Bateleur: +27 83 123 3911

In case of Poisoning:

Poison Information Centre: +27 82 446 8946
Tygerberg Hospital: (+27 21) 931 6129
Poison Emergency Enquiries: (+27 21) 689 5227

Common Name: Hexazinone 240 g/l SL
Chemical Name: 3-cyclohexyl-6-(dimethylamino)-1-methyl-1,3,5-triazine-2,4(1H,3H)-dione (IUPAC)
Empirical Formula: C₁₂H₂₀N₄O₂
CAS No.: 51235-04-2
RSA Reg. No.: L7947 Act/Wet No. 36 of/van 1947

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Concentration</u>
Hexazinone (active ingredient)	>24%
Ethanol Grain Alcohol	>50%
Other	± 8%
Water	± 18%

3. HAZARD IDENTIFICATION

Hazard Class: WHO Class II -Moderately hazardous.

Main Hazard: Corrosive, causes irreversible eye damage. Harmful if swallowed.

Flammability: Flammable liquid. Vapor forms explosive mixture with air. Heating can release vapors which can be ignited.

Chemical Hazard: During a fire this product may release smoke and hazardous decomposition products.

Biological Hazard: The active ingredient, hexazinone, in this product is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

4. FIRST AID MEASURES AND PRECAUTIONS

If poisoning is suspected, do not wait for symptoms to develop. Contact a physician, the nearest hospital or the nearest Poison Control Centre.

Symptoms of Human Poisoning: Symptoms of hexazinone poisoning include mild to moderate corneal cloudiness with transient severe conjunctivitis and slight to moderate iritis. The triazine herbicides disturb energy metabolism (thiamin and riboflavin functions). Toxicity symptoms include difficulty in walking, tremors, convulsions, paralysis, cyanosis, slowed respiration, miosis (pin point pupils), gut pain, diarrhea and impaired adrenal function.

First Aid Measures:

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or physician for treatment advice.

Eye Contact: 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 physician for treatment advice.

Ingestion: Call poison control center or physician immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or physician. Do not give anything by mouth to an unconscious person.

Inhalation: No specific intervention is indicated, as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary.

Advise to Physician: Probable mucosa damage may contraindicate the use of gastric lavage.

Antidote: There is no specific antidote for poisoning with this product.

5. FIRE FIGHTING MEASURES

Flammability: Flammable liquid. Vapor forms explosive mixture with air. Heating can release vapors which can be ignited.

Extinguishing Agents: Water Spray, Foam, Dry Chemical, CO₂.

Firefighting: Wear self-contained breathing apparatus. Use water spray. Cool tank/container with water spray. If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

Special Hazards: During a fire this product may release smoke and hazardous decomposition products.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal Precautions: Review Section 5 and Section 7 of this document before proceeding with clean-up. Use appropriate personal protective equipment during clean-up.

Environmental Precautions: Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay or other absorbent material.

Spills: Dike spill. Prevent material from entering sewers, waterways, or low areas. Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up into clearly marked containers. Dispose of product waste according to Section 13 of this document.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Avoid contact with skin, eyes and clothing. Do not leave the product in the applicator for long periods. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Keep away from heat, sparks and flames.

Storage: Store in original sealed containers in a well-ventilated and dry storehouse. Keep away from direct sunlight, open flames, food, seed, animals, children and uninformed persons. Store at temperature not exceeding 30 °C. Do not subject product to temperatures below 0° C.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Acceptable Daily Intake (ADI): No data available.

Engineering Controls: Use only with adequate ventilation. Keep container tightly closed. Always follow label instructions when using this product.

Personal Protective Equipment:

Clothing: Long-sleeved shirt, long pants, shoes plus socks, protective waterproof (impermeable) gloves. Employee must wear appropriate protective clothing and equipment to prevent prolonged skin contact with this product. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not re-use them.

Gloves: Chemical resistant gloves in Category C (butyl rubber, neoprene rubber or nitrile rubber).

Eye Protection: Wear eye protection. During mixing or pouring operations or other activities in which eye contact with undiluted product is likely to occur, splash goggles should be worn. Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

Respiratory: Avoid inhaling fumes or spray drift. During periods of abnormal exposure to heavy spray or mist, use a NIOSH approved mist respirator. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

Other Protection: Do not eat, drink or smoke while handling this product. Prevent contamination of food, feeds, drinking water and eating utensils. After using this product wash hands and face before eating. Take extreme care to avoid drift. Wash accurately (preferably a shower) after work shift. Wash hands during breaks and at the end of the work with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light yellow or colourless

Odour: Alcoholic

Form: Liquid

Solubility in Water: Dispersible

Vapour Pressure: 33 mm Hg at 25 °C

Flash Point: 23-25 °C (closed cup).

Flammability: Flammable liquid. Vapor forms explosive mixture with air. Heating can release vapors which can be ignited.

Specific Gravity: 0.96

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Conditions to Avoid: None to specifically mention.

Incompatible Materials: Incompatible with strong acids or bases (slowly hydrolyses).

Decomposition Products: None to specifically mention.

11. TOXICOLOGICAL INFORMATION

Acute toxicity based on active ingredient toxicity.

Acute Oral LD₅₀ (rat): 1 200 mg/kg. Slightly toxic by ingestion.

Acute Dermal LD₅₀ (rabbit): >5 000 mg/kg. Slightly toxic by contact.

Acute Inhalation LC₅₀ (rat, 4 hr): > 5.0 mg/l air. Very low toxicity by inhalation.

Skin and Eye Irritation: Severe eye irritation. Risk of serious damage to eyes. The technical material produced persistent mild to moderate corneal cloudiness with transient severe conjunctivitis and slight to moderate iritis in unwashed rabbit eye.

Skin Sensitization (guinea pig): Not a skin sensitizer.

Chronic Toxicity: Showed no evidence of cumulative toxicity when administered orally to male rats at a repeated dose of 300 mg/kg per day to a total of ten doses over a 2-week period. NOEL (2 year) for rats is 250 mg/kg diet.

Carcinogenicity: Group C- Possible human carcinogen (limited evidence of carcinogenicity in Animals in the absence of human data).

Mutagenicity: No mutagenic was found in the Ames bacterial assay, Chinese hamster ovary cell point mutation assay or in the rat liver DNA repair assay. It was found to be positive in the in-vitro Chinese hamster ovary cell cytogenetic assay but negative in the in-vivo rat bone marrow cytogenetic assay.

Reproductive Hazards: In a 3-generation (3 litter) rat study with 90% powder, no adverse reproduction or lactation effects were seen at any level. Slightly depressed average weaning weights were noted in the second and third litters at 2 500 ppm only.

12. ECOLOGICAL INFORMATION

Ecotoxicity is based on the active ingredient toxicity.

Aquatic Toxicity Fish LC₅₀ (96 hr): 44.98 mg/l (rainbow trout). Slightly toxic to fish.

Aquatic Toxicity Daphnia LC₅₀ (21 days): 27.14 mg/l. Slightly toxic to daphnia.

Aquatic Toxicity Algae EC₅₀ (72 hr): Highly toxic to algae.

Avian Toxicity LD₅₀: >2 258 mg/kg (bobwhite quail). Minimally toxic to birds.

Bee Toxicity LD₅₀: Non-toxic to bees.

Biodegradability: Microbial degradation contributes to decomposition in soil. The triazine ring is broken to liberate CO₂. It shows a relative resistance to decomposition by ultra violet radiation. It slowly degrades in distilled water (under "artificial sunlight" about 20% in 8 weeks). The rate of photo degradation is about three times faster when small amounts of inorganic salts are present. In photo degradation studies on thin soil surfaces, 60% of the applied 14C material (10 ppm) was degraded during a 6-week exposure to UV light. Volatilization losses are negligible.

Bio-accumulation: It is not expected to bio-accumulate in aquatic systems.

Mobility: Freundlich isotherm constants (K-values) on Fallsington sandy-loam and Flanagan silt-loam were respectively 0.2 (slope 0.95) and 1.0 (slope 1.05).

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Treatment, storage, transportation and disposal must be in accordance with applicable regulations. Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinse is a violation of the law. 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 wastewaters. The active ingredient, hexazinone, in this product is known to leach through soil into ground water under certain conditions as a result

of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Package Product Wastes:

Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or incinerator.

Metal Containers (non-aerosol): Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or incinerator.

14. TRANSPORT INFORMATION

UN No.: 1170

Hazard Class: 3

Packing Group: III

Proper Shipping Name: Ethyl alcohol solution with Hexazinone.

15. REGULATORY INFORMATION

Risk Phrases:

- R10-** Flammable
- R20/22-** Harmful by inhalation or if swallowed.
- R36-** Irritating to eyes.
- R50/53-** Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

- S2-** Keep out of reach of children.
- S13-** Keep away from food, drink and animal feeding stuffs.
- S20/21-** When using, do not eat, drink or smoke.
- S25/26-** Avoid contact with eyes. In case of accidental contact with eyes, rinse immediately with plenty of warm water and seek medical advice.
- S36/37-** Wear suitable protective clothing and gloves.
- S39-** Wear eye/face protection.
- S46-** If swallowed, seek medical advice immediately and show this container and label.

National Legislation: This product is registered under Act 36 of 1947 of the Republic of South Africa. It is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions.

16. OTHER INFORMATION

Note: Read and understand all the information on the product label before using the product.

Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

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