Sharda International Africa (Pty) Ltd

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(Co. Reg. No. 2010/002268/07)

SAFETY DATA SHEET

"SHARDA HEXAZINONE 240 SL"

1. IDENTIFICATION OF PRODUCT AND COMPANY

Name of Product: "SHARDA HEXAZINONE 240 SL"

Active Ingredient: Hexazinone

Product Use: Herbicides

Registration holder: Sharda International Africa (Pty) Ltd

Address: P.O. Box 82021, Southdale, 2135

Contact Tel. No.: 031-764-3011

Poison Centres: UNITAS Hospital: 0800-111-9900
Tygerberg Hospital: 021-931-6129
Netcare 911: 082911

2 COMPOSITION/INFORMATION ON INGREDIENTS

Composition	Percent	CAS RN
Hexazinone	24%	51235-04-2

3. HAZARDS IDENTIFICATION

Potential Health Effects: Hexazinone is a skin and eye irritant. This formulation is not an irritant.
Human health effects of overexposure to hexazinone: Overexposure to hexazinone by eye contact may initially include eye irritation with discomfort, tearing, or blurring of vision.
Ingestion may include abnormal liver function as detected by laboratory tests.
Significant skin permeation and systemic toxicity after contact appears unlikely. Individuals with preexisting diseases of the liver may have increased susceptibility to the toxicity of excessive exposures.
Carcinogenicity Information: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

4. FIRST AID MEASURES

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
SKIN CONTACT: Flush skin with water after contact. Wash contaminated clothing before reuse.

EYE CONTACT: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
INGESTION: If swallowed, immediately give 2 glasses of water and induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

5. FIRE FIGHTING MEASURES

Flammable Properties: This formulation is not a fire or explosion hazard.
Extinguishing Media: Use media appropriate for surrounding material.
Fire Fighting Instructions: Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. 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.

6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)
NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate personal protective equipment during clean-up.
Emergency Response - Chemical resistant coveralls, waterproof gloves, waterproof boots and face/eye protection. Use NIOSH approved respirator protection.
Initial Containment: Dike spill. Prevent material from entering sewers, waterways, or low areas.
Spill Clean Up: Shovel or sweep up.

7. HANDLING AND STORAGE

Handling (Personnel): Do not get in eyes. Avoid contact with skin. Avoid contact with clothing.
Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Storage: Store product in original container only in a well ventilated cool dry place.
Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Use only with adequate ventilation.
Personal Protective Equipment (PPE)
Always follow label instructions when using this product.
IMPORTANT: Wear goggles when use or handling conditions favor eye exposure or if eye discomfort is encountered.
Applicators and other handlers must wear: Long-sleeved shirt and long pants; Shoes plus socks
Protective eyewear; gloves.
Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls, Waterproof gloves, Shoes plus socks, Protective eyewear.
Exposure Guidelines
Applicable Exposure Limits
HEXAZINONE
PEL (OSHA): None established.
TLV (ACGIH): None established.

SECTION 9 PHYSICAL PROPERTIES

Appearance: Transparent Light Yellow Liquid
pH: 7.0-9.0
Solubility in water: Hexazinone is soluble in water.
Shelf Life: Minimum 2 years.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Stable at normal temperatures and storage conditions.
Incompatibility with Other Materials: Incompatible or can react with strong bases.
Decomposition: Decomposition will not occur.
Polymerization: Polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Animal Data
Acute Oral LD50 : > 300 – 2 000 mg/kg in rats.
Acute Dermal LD50 : > 2 000 mg/kg in rabbits.

Inhalation 4-Hour LC50: > 0.082 mg/ℓ in rats.

Eye Irritation: In tests with rabbits, product caused conjunctival chemosis, conjunctival redness, and corneal opacity. Positive irritant effects were present in 1 rabbit 21 days after treatment.
Skin Irritation and Sensitization: According to criteria established by the U.S. EPA, this product is considered to be a moderate skin irritant. According to criteria established by EEC Directive 93/21, this product can be classified a non-irritant. Product is not a skin sensitizer in tests on guinea pigs.
OTHER STUDIES - Hexazinone
Oral (mouse): In a 2-year feeding study with technical material, the no-observable-effect level (NOEL) was 200 ppm. Decreased body weight gain was observed in both sexes at 2500 ppm and 10000 ppm. This effect was severe at 10000 ppm, the highest level tested. Non-neoplastic liver effects were noted in males at 2500 ppm and in both sexes at 10000 ppm. Based on recent pathology review, hyperplastic liver nodules diagnosed at 10000 ppm when this study was initially conducted have been reclassified as liver adenomas. This effect was only significant among female mice in this dose group. This change reflects the current scientific consensus regarding the classification of this benign lesion in the mouse liver.
Oral (dog): In a 1-year feeding study with technical material, the NOEL was 200 ppm. Reduced food consumption and body weight gains were significant at the high dose, 6000 ppm. These nutritional effects were associated with mild but reversible changes in hematological parameters at

the high dose. Increased liver weights and other non-neoplastic liver effects as indicated by histopathology and changes in clinical chemical parameters were observed at 1500 and/or 60000ppm.
Reproduction (rat): In a 3-generation, 3-litter study with 90% powder, no adverse reproduction or lactation effects were seen at any level; slightly depressed average weanling weights were noted in the second and third litters at the high dose, 2500 ppm. A second rat reproduction study (2-generation, 3-litter study) was conducted at dietary doses from 200 to 5000 ppm. There were no adverse effects on fertility. The NOEL was 200 ppm. Decreased food consumption, parental body weight gain and decreased offspring weights were observed at the higher doses.
Teratogenicity: Not teratogenic or embryo-fetal toxic to rats by dietary administration at levels as high as 5000 ppm, the highest dose tested. Administration to rats by oral intubation resulted in a NOEL for maternal and fetal effects of 100 mg/kg body weight/day. Maternal toxicity (reduced food consumption and lower body weights) was observed at 400 and 900 mg/kg. Lower fetal weights and indications of general delayed development associated with maternal toxicity were also observed at these doses. When hexazinone was administered to rabbits via oral intubation, there were no teratogenic or embryo-fetal toxic effects at the highest dose tested, 125 mg/kg/day. Only a transient reduction in maternal food consumption was observed at the high dose. The maternal and fetal NOELs are considered to be 125 mg/kg.
Mutagenicity: Not mutagenic in Ames bacterial assay, Chinese hamster ovary cell point mutation assay, or rat liver DNA repair assay; positive in the in-vitro Chinese hamster ovary cell cytogenetic assay but negative in the in-vivo rat bone marrow cytogenic assay.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity
For the active ingredient hexazinone:
96 Hour LC50, bluegill sunfish: > 370 ppm
96 Hour LC50, rainbow trout: >320 ppm
96 Hour LC50, fathead minnow: 274 ppm

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Disposal: Do not contaminate water supply, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.
Container Disposal: Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

Transport Information
It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport.

U.N. Number: 3077
Proper Shipping Name: Environmentally Hazardous Substance, liquid, N.O.S. - (hexazinone, 24%)
Class: 9
Packing Group: III
Other Information Do not carry this product on a passenger service vehicle.
Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional segregation. Refer NZS5433 sea segregation for details.

15. REGULATORY INFORMATION

National and or International Regulatory Information
Registered pursuant to the ACVM Act 1997, No. P7886
Approved pursuant to the HSNO Act 1996, Approval Code HSR000516
Packaging & Labeling: HARMFUL * ECOTOXIC - keep out of reach of children
Hazard Rating Systems: NFPA/HMIS: 2-1-0

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Sharda's knowledge, Sharda makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.