

Sharda International Africa (Pty) Ltd

P.O. Box 82021, Southdale, 2135, South Africa.

Tel: 031 764 3011,

Email: rsa.regn@shardaintl.com, Website: <http://www.shardaintl.com>

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

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SAFETY DATA SHEET

“Oryx 240 EC”

1. IDENTIFICATION OF PRODUCT AND COMPANY

Name of Product: “Oryx 240 EC”

Active Ingredient: Oxyfluorfen 240 EC

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

Ingredients	CAS No.	% w/w
Oxyfluorfen	42874-03-3	24%
Inert ingredients	-----	76%

3. HAZARDS IDENTIFICATION

Hazard Classification: Hazardous according to the criteria of NOHSC Australia otherwise

Risk Phrases: R36/38 Irritating to eyes and skin.
R55 Harmful, may cause lung damage if swallowed.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting unless told to do so by Poisons Information Centre or doctor. Do not give anything by mouth to an unconscious person.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1 to 2 minutes and continue flushing for several additional minutes.

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Skin contact: Remove material from skin by washing with soap and plenty of water. Remove contaminated clothing and wash before reuse. Discard items which cannot be decontaminated such as shoes belts and watchbands.

Inhalation: Move person to fresh air. If person is not breathing give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide, dry chemical, water spray or foam.

Hazards from Combustion Products:

Combustion generates toxic fumes of hydrogen chloride, hydrogen fluoride, and nitrogen oxides.

Special Protective Precautions and Equipment for Fire Fighters:

Avoid breathing smoke, Remain upwind. Wear self-contained breathing apparatus and full protective gear. Use water spray to cool containers exposed to fire. Contain run-off.

Hazchem Code: 2X

6. ACCIDENT RELEASE MEASURES

Emergency Procedures:

In case of spillage it is important to take all steps necessary to:

- Avoid eye and skin contact.
- Avoid contamination of waterways.

Methods and Materials for Containment and Clean Up:

- (1) Keep all bystanders away.
- (2) Wear full length clothing and PVC gloves.
- (3) Re-position any leaking containers so as to minimize further leakage.
- (4) Dam and absorb spill with an absorbent material (e.g. sand or soil).
- (5) Shovel the absorbed spill into drums.
- (6) Disposal of the absorbed material will depend upon the extent of the spill.
 - For quantities up to 50L of product bury in a secure landfill site.
 - For quantities greater than 50L seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.
- (7) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Will damage eyes and will irritate the skin. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear:

- Cotton overalls buttoned to the neck and wrist
- Washable hat
- Elbow-length butyl rubber gloves
- Goggles

If product on skin, immediately wash area with soap and water.

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If products in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

Conditions for Safe Storage: Store in the closed, original container in a dry, cool well ventilated area out of direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards:

NMP: TWA 25ppm; 103 mg/m³ (NOHSC). STEL 75ppm; 309 mg/m³ (NOHSC). AHIA WEEL 10ppm, skin.

Engineering Controls: Do not inhale vapours. Use in well ventilated areas. In poorly ventilated areas use mechanical ventilation. No biological limit allocated.

Personal Protective Equipment: Will damage eyes and will irritate the skin. Avoid contact with eyes and skin. When opening the container, preparing spray and using the prepared spray, wear:

- Cotton overalls buttoned to the neck and wrist
- Washable hat
- Elbow-length butyl rubber gloves
- Goggles.

If product on skin, immediately wash area with soap and water.

If products in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear brown liquid

Boiling Point/Range: >200 °C

Odour: Aromatic solvent

pH: Not available Solubility: Emulsifiable in water

Vapour Pressure: 0.29 mm Hg at 20°C (NMP)

Specific Gravity: 1.08

Flash Point: 97°C (closed cup)

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal storage conditions.

Conditions to Avoid: Avoid contact with ignition sources.

Incompatible Materials: Avoid contact with strong acids, bases amines, oxidising agents, halogens and sodium hypochlorite.

Hazardous Decomposition Products: Thermal decomposition may yield the following: hydrogen chloride, hydrogen fluoride and nitrogen oxides.

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Hazardous Reactions: None known to occur.

11. TOXICOLOGICAL INFORMATION

Acute:

Oral toxicity: The acute oral median lethal dose (LD50) of Oxyfluorfen 24% EC for Wistar rats were considered as >2000mg/kg b.w.

Dermal toxicity: The acute dermal median lethal dose (LD50) of Oxyfluorfen 24% EC for Wistar rats were considered as >2000mg/kg b.w. in both males and females.

Inhalation: The 4 h acute inhalation median lethal concentration (lc50) of Oxyfluorfen 240 g/L EC in male and female Wistar rats was found to be greater than the breathing zone concentration of 5.254mg/L air. Based on the results of this study, an indication of the classification for Oxyfluorfen 240 g/L EC is as follows: Category 5 or Unclassified

Skin irritation: The experiment result showed that the Primary skin Irritation index for Oxyfluorfen 24% EC was 2.17. Therefore it is classified as Moderate irritant to the rabbit skin.

Eye irritation: The maximum mean score for ocular lesions observed in the experiment was 83.00 after 1 hour. Hence the test substance, Oxyfluorfen 24% EC was considered as **Extremely Irritant [E]** to the mucous membrane of rabbits.

Sensitization: On the basis of the findings of the present study, it is concluded that Oxyfluorfen 24% EC was a **Non - sensitizer** to the skin of guinea pigs as per the classification of Buehler.

Mutagenicity Evaluation

From the results of this study, it is concluded that Oxyfluorfen 24% EC at all the tested dose levels viz., 100, 200, 300, 400 and 500 μ g/plate was found to be **non-mutagenic** in all the four strains viz., TA-1537, TA-1535, TA-98 and TA-100 both in absence and presence of 5% v/v metabolic activation system.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

ACUTE TOXICITY OF OXYFLUORFEN 24% EC TO COMMON CARP (*Cyprinus carpio*)

From the present study, the LC₅₀ value of Oxyfluorfen 24% EC in fish Common Carp determined as 0.590 mg/l. The fiducial limits to 96 h LC₅₀ ranged from 0.526 to 0.653 mg/l, respectively.

DIETARY TOXICITY STUDY WITH OXYFLUORFEN 24% EC IN JAPANESE QUAILS

Dietary LC₅₀ of Oxyfluorfen 24% EC supplied by *Mis. Sharda Worldwide Exports Pvt. Ltd.*, Mumbai was observed as >**5000 mg/kg** for Japanese Quails .

TOXICITY OF OXYFLUORFEN 24% EC TO HONEY BEE (*Apis indica*)

The results of the study indicated that Oxyfluorfen 24% EC supplied by *Mis. Sharda Worldwide Exports Pvt. Ltd.*, Mumbai recorded an LC₅₀ of 121.25 ppm against honeybee (*Apis indica*).

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Dimethoate 30% EC, when was used as standard check, registered an LC₅₀ of 0.269 ppm to honey bees.

Persistence and Degradability: Biodegradation of Oxyfluorfen under anaerobic conditions is below detectable limits.

Bio accumulative Potential: Bio concentration of oxyfluorfen is moderate (BCF of 100-3000)

13. DISPOSAL CONSIDERATION

Disposal Methods and Containers: Triple, or preferably pressure rinse containers before disposal.

Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If not available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

SEA TRANSPORT

IMDG

UN Number: 3082

Packing Group: III

UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (oxyfluorfen)

Special Precautions for User: None

Class: 9

Hazchem Code: 2X

Subsidiary Risk: None allocated

Marine Pollutant: Yes

AIR TRANSPORT

ICAO / IATA

UN Number: 3082

Packing Group: III

UN Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (oxyfluorfen)

Special Precautions for User: None

Class: 9

Hazchem Code: 2X

Subsidiary Risk: None allocated

Marine Pollutant: Yes

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15. REGULATORY INFORMATION

Symbol: Xi, N

Indication of danger: Harmful;

Environmentally dangerous substance.

Risk phrases:

R 36/38 Irritating to eyes and skin.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S 2 Keep out of reach of children

S 36 Wear suitable protective clothing, S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment.

16. OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.