

Sharda International Africa (Pty) Ltd

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

Tel: 031 764 3011, Tel: 087 822 2397

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

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

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SAFETY DATA SHEET

“FORCE 250 SL”

1. IDENTIFICATION OF PRODUCT AND COMPANY

Name of Product: “FORCE 250 SL”

Active Ingredient: Fomesafen

Product Use: Herbicide

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. HAZARDS IDENTIFICATION

Symptoms of Acute Exposure

Irritating to eyes and skin. May cause sensitization by skin contact.

Hazardous Decomposition Products

Can decompose at high temperatures forming toxic gases.

Physical Properties

Appearance: Liquid (micro emulsion)

Odor: Not determined Unusual Fire

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Material	CAS no	Proportion
Fomesafen	108731-70-0	25.00%
Other Ingredients	-	75.00%

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4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling a poison control center, doctor or when going for treatment.

- If swallowed: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes and then continue rinsing. Call a poison control center or doctor for treatment advice.
- Skin Contact: Take off contaminated clothing immediately. Rinse skin with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice
- Inhalation: Move person to fresh air. If person is not breathing, call an ambulance and then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Notes to Physician:-

- There is no specific antidote if this product is ingested.
- Treat symptomatically.
- Probable mucosal damage may contraindicate gastric lavage.
- Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids..

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method):	> 212°F
Flammable Limits (% in Air):	Lower: % Not Applicable Upper: % Not Applicable
Auto ignition Temperature:	Not Available
Flammability:	Not Applicable

Unusual Fire, Explosion and Reactivity Hazards

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire

Use dry chemical, foam or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings,

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area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

- Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
- Eye Contact: Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
- Skin Contact: Where contact is likely, wear chemical-resistant (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear.
- Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, or P or HE filter.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid (microemulsion)
Odor:	Not determined
Melting Point:	Not Available
Boiling Point:	Not Applicable
Specific Gravity/Density:	1.08g/ml
pH:	7.2 - 9(1% w/w dilution in deionized water)
Solubility in H ₂ O:	
Fomesafen sodium salt:	Not Applicable
Vapor Pressure:	
Fomesafen sodium salt:	Not Applicable

10. STABILITY AND REACTIVITY

Stability:	Stable under normal use and storage conditions
Hazardous Polymerization	Will not occur.
Conditions to Avoid:	None known.
Materials to Avoid:	Oxidizing agents
Hazardous Decomposition Products:	Can decompose at high temperatures forming toxic gases..

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation

Studies (Finished Product)

Ingestion:	Slightly Toxic
Oral (LD50 Rat)	> 3,863 mg/kg body weight
Dermal:	Slightly Toxic
Dermal (LD50 Rat)	> 2000 mg/kg body weight
Inhalation:	Practically Non-Toxic
	Inhalation (LC50 Rat) : > 2.1 mg/l air - 4 hour
Eye Contact:	Moderately Irritating (Rabbit)
Skin Contact:	Moderately Irritating (Rabbit)
Skin Sensitization:	A moderate skin sensitizer in animal tests.
Reproductive/Developmental Effects	Non-genotoxic in in vitro and in vivo assays. Hepatic changes and a small effect on reproductive performance seen in a 3-generation rat study at the 1000 ppm dose level. (based on Fomesafen Technical).
Chronic/Subchronic Toxicity Studies	Liver effects seen at 10 ppm and 100 ppm in 90-day rat feeding studies and in 6-month dog studies at 25 mg/kg/d. (based on Fomesafen Technical). No evidence of neurotoxicity from subacute or longer-term studies in mammals. (based on Fomesafen Technical)

Carcinogenicity

Fomesafen	Increased rates of malignant liver tumors in a 2-yr mouse feeding study (1000 ppm), but the results are not considered relevant to man. (based on Fomesafen Technical)
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Other Toxicity Information None

Toxicity of Other Components

Cyclohexanol (<= 11%)

May cause severe eye irritation, possible burns. Causes skin irritation. Ingestion causes gastrointestinal irritation. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness and nausea. Inhalation of high concentrations may cause central nervous system effects.

Active Ingredients

Fomesafen Sodium Salt: Liver (based on Fomesafen Technical)

Inert Ingredients

Cyclohexanol: Eye, skin, gastrointestinal tract, CNS

12. ECOLOGICAL INFORMATION

Summary of Effects

Fomesafen Sodium Salt
Toxic to fish. (based on Fomesafen Technical)

Eco-Acute Toxicity

Fomesafen Sodium Salt
Rainbow Trout 96-hour LC50 170 mg/L
Bluegill Sunfish 96-hour LC50 1,507 mg/L
Mallard Oral LD50 >5,000 mg/kg
Mallard 5-day Dietary LC50 >20,000 mg/kg
Daphnia magna 48-hour EC50 0.33 g/L
Green Algae EC50 170 ug/L
Bobwhite Quail 5-day LC50 >20,000 mg/kg

The above Ecotoxicity Data are based on Fomesafen Technical, not Fomesafen Sodium Salt

Eco-Chronic Toxicity

Fomesafen Sodium Salt Not Available

Environmental Fate

Fomesafen Sodium Salt
The information presented here is for the active ingredient, fomesafen. Persistent in soil. Stable in water. Highly mobile in soil. Will leach. Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

- Disposal: Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.
- Characteristic Waste: Not Applicable
- Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA

Not regulated

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B/L Freight Classification

Herbicides, NOI (NMC Class 60)

Comments None.

15. REGULATORY INFORMATION

Risk phrases: Harmful if Swallowed Safety phrases: Keep out of reach of children

16. OTHER INFORMATION

The information contained in the Material Safety Data Sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for with other materials or in processes other than those specifically described herein. Global Agrichemical (PTY) LTD 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..