

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name	GLADIATOR 160 ME
Active ingredients	Fluroxypyr meptyl & Picloram triisopropanolamine salt
Use Type	Herbicide
Company Supplier	Future Farm and Forest Services and Supplies (Pty) Ltd Po Box 98165, Sloane Park, Gauteng, 2152
Emergency number	011 463 5842
Poisonings	Griffon Poison Centre 082 446 8946

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	CAS	Concentration
Fluroxypyr meptyl	81406-37-3	10.65%
Picloram triisopropanolamine salt	1918-02-1	13.24%
Other ingredients		up to 100%.

Ingredients not precisely identified are proprietary or non-hazardous.

3. HAZARDS IDENTIFICATION

Potential health effects: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

Eye: May cause severe eye irritation with corneal injury, which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

Skin: Prolonged contact may cause slight skin irritation with local redness. May cause drying and flaking of the skin. Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Ingestion: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

Inhalation: Prolonged exposure is not expected to cause adverse effects. Mist may cause irritation of upper respiratory tract (nose and throat) and lungs.

4. FIRST AID MEASURES

Eye: Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.

Skin: Wash skin with plenty of water.

Ingestion: No emergency medical treatment necessary.

Inhalation: Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

5. FIRE FIGHTING MEASURES

Extinguishing media: Foam, CO₂, Dry chemical

Fire and explosion hazards: Foam fire extinguishing system is preferred because uncontained water can spread possible contamination. Toxic irritating gases may be formed under fire conditions.

Fire-fighting equipment: Use positive-pressure, self-contained breathing apparatus and full protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. Do not smoke, eat or drink during the clean-up process. Wear personal protective clothing and equipment. Keep people and animals away. Contain spill and absorb with earth, sand clay, or other absorbent material. Prevent spilled material from entering drains or watercourses. Collect and store in properly labelled drums for safe disposal. Clean floor with a damp cloth and place it in the drum. Seal drums and label ready for safe disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses etc., is unavoidable, warn the local water authority.

7. HANDLING AND STORAGE

Handling: Keep out of reach of children. Avoid contact with eyes and skin. Do not inhale spray mist. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

Storage: Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Do not store food, beverages or tobacco products in the storage area. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering controls

Control process conditions to avoid contact. Use in a well-ventilated area only.

Personal Protective Equipment

Eyes: 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: 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.

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.

Inhalation: Protection provided by air-purifying respirators is limited. Use a pressure demand atmosphere-supplying respirator if there is any potential for uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Amber liquid.
Vapour Pressure:	Negligible
Solubility:	Emulsifiable in water
Density:	1.05-1.09 (20 °C)
Flash point:	>100 °C (Closed cup)

10. STABILITY AND REACTIVITY

Stability: (conditions to avoid): Stable under normal handling and storage conditions.

Incompatibility: (specific materials to avoid): None known.

Hazardous decomposition products: In a fire, hydrogen chloride and nitrogen oxides will be formed.

Hazardous polymerization: Not known to occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies:

Oral toxicity	>5000 mg/kg for rats
Dermal toxicity	> 5000 mg/kg for rats
Skin irritation	May cause skin irritation
Eye irritation	May cause eye irritation

12. ECOLOGICAL INFORMATION

Active ingredients practically non-toxic to aquatic organisms on an acute basis (LC50 or EC50 is >100 mg/L in the most sensitive species tested).

The solvent is highly toxic to aquatic organisms on an acute basis (LC50 or EC50 is between 0.1 and 1 mg/L in the most sensitive species tested).

13. DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse containers before disposal. Add rinse water to the mixing tank. Do not dispose of undiluted chemical 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 container in a local authority landfill. If no landfill is 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

UN No.: 3082

Class: 9

Packing group: III

15. REGULATORY INFORMATION

Symbol : N

Indication of danger: Dangerous for the Environment

Risk phrases :

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

S2 Keep out of reach children.

S 36/37 Wear suitable protective clothing and gloves.

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.