


SAFETY DATA SHEET

Prepared on Commission Regulation (EU) no. 453/2010

1. Identification of the substance/mixture and of the company/undertaking			
Product/substance name	Eco-imazapyr 100 SL		Revision Date: 23/05/2022 Publish Date: 23/05/2022
Product/substance name Herbicide	CAS Number 81334-34-1	EINECS Number -	Index Number -
Supplier	Future Farm & Forest Services & Supplies (Pty) Ltd Johannesburg Epsom Downs Office Park 13 Sloane Street, Bryanston 2194 EMERGENCY CONTACT Tel: (+27) 11 463 5842		
Regd. Office:	Future Farm & Forest Services & Supplies (Pty) Ltd Johannesburg Epsom Downs Office Park 13 Sloane Street, Bryanston 2194 EMERGENCY CONTACT Tel: (+27) 11 463 5842		
Emergency telephone number	Transport accident: 086 100 0366 Treatment for poisoning cases: 082 446 8946		

2. Hazards identification	
<u>Classification of the substance or mixture</u> Serious eye damage/eye irritation Category 2: (H319)	
<u>Label Elements</u> Hazard pictograms 	
Signal word	Warning

Email: info@futurefarmforest.co.za
 Managing Director: R D Forsyth-Thompson
 Reg. 1998/014639/07

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Hazard statement:

H319: Causes serious eye irritation.

Precautionary statement

P264 + P265: Wash skin thoroughly after handling. Do not touch eyes.

P280: Wear eye protection/ face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313: If eye irritation persists: Get medical advice/ attention.

Other Hazards

No information available

3. Composition/information on ingredients**Mixture**

Chemical Name	Weight (%)	CAS No	EC No	GHS Classification
Imazapyr (as isopropylammonium)	10%	81334-34-1		Eye Irrit. 2 (H319)
Emulsifier: polyoxymethylene fatty alcohol ethers	5%	542-10-9	208-800-3	Not classified
Cosolvent: propylene glycol	13%	57-55-6	200-338-0	Not classified
Water	Ca. 70%	7732-18-5		Not classified

4. First aid measures**First aid measures****General advice**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

First aider: Pay attention to self-protection!

Inhalation

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Immediate medical attention is required.

Skin Contact

Immediately remove contaminated clothing and flush body and clothes with large amounts of soap and water. Rinse skin immediately with plenty of water for 15-20 minutes. Wash contaminated clothing before re-use. Seek medical assistance if irritation persists.

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Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If eye irritation persists: Get medical help.
Ingestion	IF SWALLOWED: Get medical help.
Self-protection of the first aider	Use personal protective equipment as required.
<u>Indication of any immediate medical attention and special treatment needed</u>	
Note to physicians	Treat symptomatically.

5. Firefighting measures

Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

Avoid the use of water jets, due to contamination/spreading risk.

Special hazards arising from the substance or mixture

No specific hazard known.

Advice for firefighters

In the event of fire and/or explosion do not breathe fumes.

Use a recommended extinguishing agent for the type of surrounding fire.

Fight fire from maximum distance and use unmanned hose holder or monitor nozzles.

Contain fire control agents for later disposal.

Water can be used to cool containers but must be contained for later disposal.

Do not scatter the material.

Bund area with sand or earth to avoid pollution of waterways.

Dispose of extinguishing agent and spillage in a safe way at a later stage in accordance with official regulations.

This product consists of combustible organic components that may burn and decompose during a fire and produce a dense black smoke with hazardous combustion products such as carbon monoxide, carbon dioxide, nitrogen oxides.

These products are toxic and/or irritant.

Protective clothing

Full protective clothing and self-contained breathing apparatus and turnout gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Avoid contact with skin and eyes and clothing. For personal protection see Section 8. Remove contaminated clothes, undergarments and shoes immediately. Chemical goggles when respirator does not provide eye protection. Air respirators should be worn if large quantities of mist/dust are generated or during prolonged exposure.

Environmental precautions

Do not contaminate waterways, drains and groundwater. If contamination of waterways, drains, rivers or lakes is unavoidable, warn the local authorities (Police and Department of Water/Environmental affairs) immediately.

Methods and material for containment and cleaning up

Methods for cleaning up

Do not eat, drink, or smoke during the cleanup process.

Clear area of unprotected personnel.

Wear protective gear: goggles, full length clothing and suitable chemical resistant safety gloves.

Reposition leaking containers to minimize further leakage.

For small spillages: contain spill and collect using a suitable absorbent material such as sand, sawdust, general purpose binder, kieselguhr.

For large spillages: Dike the spillage.

Pump off the product.

Dispose of absorbed material in accordance with regulations.

Collect waste in suitable containers, which can be labelled and sealed.

Clean the floor and contaminated objects thoroughly with water and detergents, observing environmental regulations.

Store in properly labelled drums for safe disposal.

Reference to other sections

See also section 8,13

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7. Handling and storage

Precautions for safe handling

Advice on safe handling

No special measures necessary if stored and handled correctly. Protection against fire and explosion: vapors may form ignitable mixture with air. Prevent electrostatic charge-sources of ignition should be kept well clear-fire extinguishers should be kept handy.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

Conditions for safe storage, including any incompatibilities

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Avoid all sources of ignition: heat, sparks, open flame. Storage duration: 24 months. Protect from temperatures above: 40 °C. Do not store below -12.2°C.

Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Safety Data Sheet.

8. Exposure controls/personal protection

National occupational exposure limits

No data available.

Exposure controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Hand Protection

Gloves made of plastic or rubber.

Body Protection

Antistatic footwear, Wear fire/flame resistant/retardant clothing, Gloves made of plastic or rubber, Suitable protective clothing.

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Respiratory protection	Use only with adequate ventilation.
General Hygiene Considerations	When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.

9. Physical and chemical properties

Physical and Chemical Properties

<u>Property</u>	<u>Values</u>	<u>Methods</u>	<u>Remarks</u>
Appearance			
Physical state	: Liquid		
Color	: Red		
Odor	: Ammonia-like		
Odor threshold	: No data available		
pH	: 5.0 - 8.0	CIPAC MT 75.2	solution (1 %)
Melting point/freezing point (°C)	: No data available		
Boiling point/boiling range (°C)	: No data available		
Flash point (°C)	: > 93°C	CIPAC MT 12	CC (closed cup)
Evaporation rate	: Not Applicable		
Flammability (solid, gas)	: Not Applicable		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure (kPa)	: Negligible		
Vapor density	: No data available		
Relative density	: No data available		
Solubility(ies) (mg/l)	: miscible in water		
Partition Coefficient (n-octanol/water) Log Pow:	: No data available		
Autoignition temperature (°C)	: No data available		
Decomposition temperature (°C)	:		
Kinematic viscosity (mm ² /s 40 °C)	: No data available		
Explosive properties	: Not Applicable		
Oxidizing properties	:		
<u>Other Information</u>			
Bulk density (g/ml)	:		
Surface tension (g/ml)	:		

10. Stability and reactivity

Reactivity:	Stable under standard conditions.
Chemical stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Thermally and chemically stable.
<u>Possibility of Hazardous Reactions</u>	
Hazardous polymerization:	Including but not limited to oxides of carbon and nitrogen
Conditions to avoid:	Protect from extreme temperatures, direct sunlight, open flames and sources of ignition.
Incompatible materials:	Oxidising agents and reducing agents
Instability conditions:	Strong exothermal reaction above 100°C
Decomposition products:	None known

11. Toxicological information

Information on toxicological effects

<u>Acute toxicity</u>	<u>Values</u>	<u>Species</u>	<u>Remarks</u>
Oral (LD50 mg/kg)	: > 5000	Rat	Male
Dermal (LD50 mg/kg)	: > 2000	Rat	based on Imazapyr technical
Inhalation (LC50 mg/l/4h)	: > 2.0	Rat	based on Imazapyr technical
Skin corrosion/irritation	: Slight irritant	Rabbit	
Serious eye damage/eye irritation	: Severely irritating to the eyes	Rabbit	
Respiratory/skin sensitization	: None	Guinea pig	

Chronic toxicity

Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not carcinogenic
Reproductive toxicity	: Not toxic for the reproductive system
STOT - single exposure	: Not available
STOT - repeated exposure	: Not available
Aspiration hazard	: Not available

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12. Ecological information

Toxicity

Aquatic toxicity

Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish (96-hour LC50 mg/l)	: > 100	Rainbow trout	OECD 203	
Crustacea (48-hour EC50 mg/l)	: > 100	<i>Daphnia magna</i>	OECD 202	
Algae (72-hour EC50 mg/l)	: It has low toxicity algae			
Other plants (EC50 mg/l)	:			

Terrestrial Toxicity

Birds Oral LD50 (mg/kg)	: > 2150	Bobwhite quail		
	> 5000	Mallard ducks		
Bees Oral LD50 (µg/bee)	: > 100			
Worms Oral LD50 (mg/kg)	No data, but not likely to impact due to nature of use.			

Persistence and degradability

Abiotic Degradation

Water DT50 days	: -			
Soil DT50 days	: 11			Non-persistent

Biodegradation	: Degradation is primarily due to microbial activity.			
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Bioaccumulative potential

Partition Coefficient (n-octanol/water)	: -			
Partition Coefficient (n-octanol/water)				
Log Pow				
Bioconcentration factor (BCF)	: 2.54		Q2 Estimate	Low potential

Mobility in soil

Adsorption/Desorption	:			
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Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Other adverse effects

No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

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Contaminated packaging:	Improper disposal or reuse of this container may be dangerous and illegal. Triple or pressure rinse containers before disposal. Do not re-use container. Empty containers and product should not be burnt.
Other Information:	Waste codes should be assigned by the user based on the application for which the product was used.

14. Transport information

IMDG/IMO

UN/ID No *	3082
Proper shipping name	Environmentally hazardous substance, liquid. N.O.S. (Imazapyr)
Hazard Class	9
Packing Group	III
Environmental hazards	Imazapyr

Classification for SEA transport (IMO-IMDG):

UN/ID No *	3082
Proper shipping name	Environmentally hazardous substance, liquid. N.O.S. (Imazapyr)
Hazard Class	9
Packing Group	III
Marine pollutant	Imazapyr

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code

Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

UN/ID No *	3082
Proper shipping name	Environmentally hazardous substance, liquid. N.O.S. (Imazapyr)
Hazard Class	9
Packing Group	III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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15. Regulatory information

Safety, health, and environmental regulations/legislation specific for the substance or mixture

National legislation:

- Regulations For Hazardous Chemical Agents, 2021 as Amended by Notice R 11266 in GG 44366 of 31 March 2021 Republic Of South Africa.
- Occupational Health and Safety Act (Act No. 85 of 1993) as amended.
- Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (Act No. 36 of 1947) as amended. Registration No. L6802 Department of Agriculture, Land Reform and Rural Development.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Contact:

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SLOANE PARK
2152

Abbreviations and acronyms:

ADR:	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID:	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association (IATA)
ICAO:	International Civil Aviation Organization
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS:	Globally Harmonized System of Classification and Labelling of Chemicals
EINECS:	European Inventory of Existing Commercial Chemical Substances
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent

This Safety Data Sheet (SDS) complies with basic South African and EU regulatory requirements for SDS on the date of publication and is intended for translation and adaptation into European

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