



MATERIAL SAFETY DATA SHEET

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Revised edition no : 1

Date : 30 / 3 / 2008

Supersedes : 0 / 0 / 0

IMAZETHAPYR 240 SL

H-0108

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Trade name	: IMAZETHAPYR 240 SL
Chemical description	: Imazethapyr ammonium: (RS)-5-ethyl-2-(4-isopropyl-4-methyl-5-oxo-imidazolin-2-yl)nicothini-c acid, ammonium salt
Use	: Herbicide.
Company identification	: Makhteshim Agan SA (Pty) Ltd. 21 Viben Street. P O Box 498 Brackenfell 7561 RSA
Emergency phone nr	: +27-21-982 1460
Email	: info@makhro.com

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance name	Value(s)	CAS No	EC No	Index No	Classification
Imazethapyr ammonium	: 22 - 24 %	101917-66-2	-----	-----	

3. HAZARDS IDENTIFICATION

Environmental hazard	: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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4. FIRST AID MEASURES

First aid	
Inhalation	: Remove victim to fresh air. If breathing is difficult: artificial respiration . Get medical attention.
Ingestion	: Wash out mouth with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.
Skin contact	: Remove contaminated clothing and shoes. Wash away remainder with plenty of water.
Eye contact	: Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention.
Note to physician	: No specific antidote known. Treat symptomatically and give supportive therapy.
Protection of first-aiders	: Use appropriate protection (see section 8).

5. FIRE-FIGHTING MEASURES

Extinguishing media	: For small fire : dry chemical powder , water spray carbon dioxide For large fire : foam , water fog , water spray.
Hazardous decomposition products	: nitrogen oxides (NO, NO2...) , carbon oxides (CO, CO2) .
Protection of fire-fighters	: Self-contained breathing apparatus and total protection required in enclosed areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Wear suitable protective clothing, gloves and eye/face protection.
Environmental precautions	: Do not empty into drains. Do not discharge into the environment.
After spillage and/or leakage	: Collect spills and put it into appropriated container. Dispose of this material and its container at hazardous or special waste collection point. Keep away from combustible material.



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7. HANDLING AND STORAGE

- Handling** : Ventilation required.
- Storage** : Keep in original containers. Keep away from food, drink and animal feeding stuffs. Store in dry, well-ventilated area.
- Precautions in handling and storage** : Handle in accordance with good industrial hygiene and safety procedures.
- Storage - away from** : Direct sunlight .

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering measures** : Ventilation required.
- Industrial hygiene** : Wash hands thoroughly after handling. When using do not eat, drink or smoke. Wash clothing before re-using.
- Personal protection**
- **Respiratory protection** : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. .
 - **Skin protection** : Wear suitable protective clothing Wear safety boots.
 - **Hand protection** : Wear suitable gloves.
 - **Eye protection** : Chemical goggles or safety glasses.
- Occupational Exposure Limits**
- TLV** : Imazethapyr ammonium No data available.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state** : Soluble concentrate.
- Colour** : Green-brown.
- Odour** : Musty.
- pH value** : 6.6 ±0.04
- Density [g/ml]** : 1.1± 0.01 @ 20°C
- Vapour pressure [mPa]** : Imazethapyr: 8.5e-5 @ 25°C
- Solubility in water** : Miscible
- Flash point [°C]** : >100
- Log P octanol / water** : Imazethapyr: 1.04@ pH 5 (25°C); 1.49 @pH 7 (25 °C); 1.2 @pH 9 (25 °C)
- Flammability** : Not flammable
- Explosion properties** : Not explosive
- Oxidation properties** : Not oxidizing

10. STABILITY AND REACTIVITY

- Stability** : Stable under normal conditions.
- Hazardous decomposition products** : nitrogen oxides (NO, NO2...) , carbon oxides (CO, CO2) .
- Hazardous Polymerization** : Will not occur.
- Materials to avoid** : oxidizing agents , Zinc (Zn). , Iron (Fe). , Steel. , Copper (Cu). , acids , alkali .

11. TOXICOLOGICAL INFORMATION

- On product**
- Rat oral LD50 [mg/kg]** : >5,000
- Rat dermal LD50 [mg/kg]** : >5,000
- Rat inhalation LC50 [mg/l/4h]** : >5.06



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11. TOXICOLOGICAL INFORMATION (continued)

Dermal irritation (rabbit)	: Not irritating
Eyes irritation (rabbit)	: Minimal irritant
Sensitization	: Non sensitizer
Chronic toxicity	: (Imazethapyr): NOEL (rat)=500 mg/kg/day (2 years) NOEL (mouse)=750 mg/kg/day (1.5 years) NOEL (dog)=25 mg/kg/day (1 year)
Carcinogenicity	: (imazethapyr): EPA: Group E (evidence of non-carcinogenicity for humans) Not classified EU , Not classified IARC : not classified.
Mutagenicity	: Imazethapyr: Not mutagenic.
Teratogenicity	: Imazethapyr: NOEL (rabbit)=300 mg/kg/day (maternal), (rabbit)f>1,000 mg/kg/day (fetal) NOEL (rat)=375 mg/kg/day (maternal) NOEL (rat)>1,125 mg/kg/day (fetal)

12. ECOLOGICAL INFORMATION

Common name	: Imazethapyr
96 H-LC50 - Bluegill sunfish [mg/l]	: 420
96 H-LC50 - Rainbow trout [mg/l]	: 340
48 H-EC50 - Daphnia magna [mg/l]	: >1,000
NOEC - Algae [mg/l]	: (selenastrum capricornutum): 50
LD50 Birds [mg/kg]	: Mallard duck >2,150 Bobwhite quail >2,150
Birds LC50 [ppm]	: (8 day feeding): Bobwhite quail & Mallard duck >5,000
Bees LD50 [µg/Bee]	: Contact >100 Oral >24
Persistence and degradability	: Soil : : Moderately persistent in soil Degradation is primarily via: photolysis , microorganisms Half-life time (t1/2) Field: 60-90 days. : Water : : Half-life time (t1/2) (Photolysis, Distilled water)= 46 hours Degradation is primarily via: photolysis
Mobility	: Soil : : Low mobility Low risk of underground water contamination.
Bioaccumulative potential	: Low bioaccumulation potential (log Kow=1.49, pH 7).

13. DISPOSAL CONSIDERATIONS

Disposal	: Dispose of in a pesticide approved landfill, or in a chemical incinerator equipped with scrubbers. Dispose in a safe manner in accordance with local/national regulations.
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14. TRANSPORT INFORMATION

International transport regulations	
- UN No.	: 3082
- Proper shipping name	: Environmentally hazardous substance, liquid, N.O.S. (Imazethapyr).



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14. TRANSPORT INFORMATION (continued)

Land transport

- H.I. nr : 90
- ADR/RID : Class 9, M6, PG III

Sea transport

- IMO-IMDG code : Class 9, PG III
- EMS-Nr : F-A, S-F

Air transport

- IATA - Class or division : 9, PG III

National transport regulations : No additional national regulations are available/required

15. REGULATORY INFORMATION

- EU Classification** : According to Commission Directive 67/548/EEC and its amendments
- R Phrase(s)** : R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- S Phrase(s)** : S02 - Keep out of the reach of children.
S13- Keep away from food, drink and animal feedingstuffs.
S29/35- Do not empty into drains; dispose of this material and its container in a safe way.
S46- If swallowed, seek medical advice immediately and show this container or label.
S57- Use appropriate containment to avoid environmental contamination.
S60- This material and its container must be disposed of as hazardous waste.

16. OTHER INFORMATION

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