

RIGBY TAYLOR LTD

PRODUCT SAFETY DATA SHEET: GREENOR HERBICIDE

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

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Product Name: GREENOR HERBICIDE : MAPP 10909

LV70: 76236 Issue date: Oct 99 Ref: BD81A

Revised: June 07 (Sections (s) 2, 3, 8, 12, 13, 15, 16)

For questions about this SDS, contact: SDSQuestion@dow.com

2. HAZARDS IDENTIFICATION

Irritating to eyes. May cause sensitization by skin contact. Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

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3. COMPOSITION/INFORMATION ON INGREDIENTS:

Dangerous components (see section 16 for complete R-phrases):

	Concentration		CAS	EC No
Fluroxypyr 1-752-9 methylheptyl ester	5.29%	N; R50/53	81406-37-3	279-
Clopyralid-olamine	2.43%	Xi; R43	57754-85-5	
MCPA potassium salt	21.88%	Xn; R20/21/22	05221-16-9	
Fatty alcohol ethoxylate 7	10-20%	Xi; R41, N; R50	68131-39-5	500-195-
Solvent naptha (petroleum) 5 heavy aromatic	10-20%	Xn; N; R51/53-65-66-67	64792-94-5	265-198-
Ammonium lauryl ether sulphate	<5 %	Xi; R36/38	32612-48-9	
(2-methoxymethyethoxy) propanol	< 5%	Not classified*	34590-94-8	252-104-2

* Substance (s) with an Occupational Exposure Limit

1,2,4-trimethyl benzene 9	< 1%	R10;Xn: R20; Xi:R36/37/38; N:R51/53	00095-63-6	202-436-
4-chloro-o-cresol 5	< 1%	Xn, N; R22-40-50/53	0009`-20-3	202-049-

Inert ingredients Balance
 Composition Code EF1498

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4. FIRST AID MEASURES:

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Ingestion: Do not induce vomiting. Call a physician. The decision of whether to induce vomiting or not should be made by a physician.

Eye Contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

Skin Contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash contaminated clothing before re-use.

Inhalation: Remove to fresh air. Consult a physician.

Note to Physician: No specific antidote. If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

5. FIRE FIGHTING MEASURES:

Extinguishing Media: Water fog or fine spray. Carbon dioxide. Dry chemical fire extinguishers. Foam.

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Protection of fire fighters: Wear protective clothing and use self-contained breathing apparatus.

Additional Information: Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.

6. ACCIDENTAL RELEASE MEASURES:

Personal Precautions: Wear appropriate safety clothing and eye/face protection (see Section 8).

Environmental Precautions: Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water or drainage systems.

Methods of Cleaning Up: Soak up with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

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7. HANDLING & STORAGE:

Handling: Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work. Avoid eye and skin contact.

Storage: Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

Exposure Guidelines:

Fluroxypyr 1-methylheptyl ester: Dow AgroSciences IHG is 10mg/m³

Clopyralid : Dow AgroSciences recommendation is 10mg/m³

MCPA: Dow AgroSciences IHG is 5mg/m³

Supplier recommendation for solvent is 100 ppm

Naphthalene: ACGIH Threshold Limit Value (TLV) is 10 ppm (TWA) (skin)

EU Indicative Exposure Limit Value is 50mg/m³

(2-methoxymethoxy)propanol: EU Indicative Exposure Limit is 308mg/m³. The threshold limit is 50ppm. Skin designation applies

1,2,4-trimethylbenzene: Threshold Limit Value (TLV) is 100mg/m³, 20ppm.

UK & Ireland OEL:

(2-METHOXYMETHYETHOXY) – 1- PROPANOL:

IRELAND: Irish skin designation (has capacity to penetrate intact skin on contact and be absorbed into the body).

Irish 8-hour OEL Time-weighted average (TWA) is 308mg/m³ (50ppm).

UK: Time-weighted average (TWA) is 308mg/m³ (50ppm).

1,2,4-TRIMETHYBENZENE

IRELAND: Irish skin designation (has capacity to penetrate intact skin on contact and be absorbed into the body).

Irish 8-hour OEL Time-weighted average (TWA) is 100mg/m³ (20ppm).

UK: Time-weighted average (TWA) is 125mg/m³ (25ppm).

NAPHTHALENE:

IRELAND: Irish skin designation (has capacity to penetrate intact skin on contact and be absorbed into the body).

Irish 8-hour OEL Time-weighted average (TWA) is 50mg/m³ (10ppm).

Irish 15-minute OEL (STEL) is 75mg/m³ (15ppm).

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Engineering Controls: Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

Respiratory Protection: For most conditions, no respiratory protection should be needed. However, if respiratory irritation is experienced use an approved air-purifying respirator. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Hand/Skin Protection: For brief contact, no precautions other than clean body-covering clothing and chemical resistant gloves should be needed. Use chemical resistant gloves classified under standard EN 374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Nitrile. Examples of acceptable glove barrier materials include: Polyvinyl chloride ("PVC" or "vinyl"). Neoprene. Avoid gloves made of: Natural rubber ("latex").

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material. For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

Eye/Face Protection: Use safety glasses. Where contact with the liquid is likely, chemical goggles are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: clear liquid

Colour: amber to brown

Relative Density (water=1): 1.09 (approx).

pH: 6.8 (1% dilution)

Water Solubility: emulsifiable

Flash Point: none

Auto-ignition temp: > 400 deg C

Explosive properties: not explosive

Surface tension: 29.5 mN/m (25 deg.C)

Oxidising properties: non-oxidising

Kinematic viscosity: 31mm²/s (40 deg. C)

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10. STABILITY AND REACTIVITY:

Chemical Stability: Is stable under normal storage conditions.

Conditions to avoid: Avoid extremes of temperature.

Materials to avoid: Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products: None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION:

Ingestion: Low toxicity if swallowed. The oral LD50 for rats is >2000 mg/kg.

Skin Contact: The dermal LD50 for rabbits is >2000 mg/kg. Prolonged or widespread skin contact may result in absorption of harmful amounts. Essentially non-irritating to the skin.

Sensitisation: Sensitising to guinea pig skin. Skin contact may cause allergic skin reaction.

Eye Contact: May cause severe eye irritation.

Inhalation: The LC50 for inhalation in rats is greater than the maximum attainable. No adverse effects anticipated by this route of exposure incidental to proper handling.

Additional information: Not carcinogenic. Not mutagenic. Not toxic for reproduction.

12. ECOLOGICAL INFORMATION

Persistence and Degradability: Assessment largely or completely based on data for active ingredient.

Fluroxypyr 1-methylheptyl ester:

Rapidly hydrolysed to the parent acid, which undergoes further degradation. Half-life in soils is dependent on soil type and conditions and is approximately 14-56 days. There is no evidence of any significant leaching, therefore it is unlikely to contaminate ground water.

Clopyralid:

The principle route of degradation is microbial and will occur readily. Half-life in soils is dependent on soil type and conditions and is approximately 12-62 days.

Aquatic toxicity: Based on data for the formulation.

Material is toxic to fish on an acute basis (1mg/L < LC50 < 10mg/L).

Material is toxic to aquatic invertebrates on an acute basis (1mg/L < EC50 < 10mg/L).

Material is toxic to algae (1mg/L < IC50 < 10 mg/l).

Avian toxicity: Based on data for the formulation.

Material is practically non-toxic to birds on an acute basis (LD50 > 2000mg/kg).

Other information: Based on data for the formulation.

LD50 for bees is > 100 microgram / bee.

LD50 for earthworms is > 1000 mg/kg.

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13. DISPOSAL CONSIDERATIONS:

Toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.

14. TRANSPORT INFORMATION

ROAD & RAIL:

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr / Clopyralid solution)

Truck/Rail ADR/RID: 9

Classification Code: M6

Packing Group: III

UN number: 3082

Label: < >

Kemler Code: 90

Tremcard Nr. CEFIC: 90GM6 - III

SEA:

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr / Clopyralid solution)

Sea – IMO/IMDG Class: 9

Packing Group: III

UN number: 3082

Label: 9

EMS:

Marine Pollutant: Y (Y/N)

AIR:

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fluroxypyr / Clopyralid solution)

Air –ICAO/IATA Class: 9

Sub Class:

Packaging Group: III Pack Instr. Passenger: 914 Pack Instr. Cargo: 914

UN number: 3082

Label: 9

Remarks: Sample shipment not allowed by mail.

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15. REGULATORY INFORMATION

Hazard Symbol:

Xi – Irritant.

N – Dangerous for the Environment.

Risk Phrases:

Irritating to eyes (R36).

May cause sensitisation by skin contact (R43).

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R51/53).

Safety Phrases:

Keep out of reach of children (S2).

Avoid contact with skin (S24).

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S26).

This material and its container must be disposed of in a safe way (S35).

Wear suitable gloves (S37).

Use appropriate containment to avoid environmental contamination (S57).

Refer to the Product Label for full local regulatory Authority label precautions.

16. OTHER INFORMATION:

Risk-Phrases in Section 3:

R10 – Flammable.

R20 – Harmful by inhalation.

R20/21/22 – Harmful by inhalation, in contact with skin if swallowed.

R22 – Harmful if swallowed.

R23 – Toxic by inhalation.

R35 – Causes severe burns.

R36/38 – Irritating to eyes and skin.

R36/37/38 – Irritating to eyes, respiratory system and skin.

R40 – Limited evidence of a carcinogenic effect.

R41 – Risk of serious damage to eyes.

R43 – May cause sensitisation by skin contact.

R50 – Very toxic to aquatic organisms.

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

R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 – Harmful: may cause lung damage if swallowed.

R66 – Repeated exposure may cause skin dryness or cracking.

R67 – Vapours may cause drowsiness and dizziness.

The information herein is given in good faith and to the best of our knowledge but no warranty, express or implied, is made.