

SAFETY DATA SHEET

21/6/05

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

Dow AgroSciences Limited
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 Hitchin
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Emergency Telephone Number: +44 (0)1553 761 251

Product Name: **PASTOR HERBICIDE (GF-818) : MAPP 11168 (PCS 00766)**

LV70: 80485

Issue Date: Feb. 02

Ref: BGE14

Revised: May 05 (Section(s) 14)

2. COMPOSITION/INFORMATION ON INGREDIENTS**Dangerous components (see section 16 for complete R-phrases):**

			CAS	EC No
Triclopyr-2-butoxyethyl ester	139 g/L	Xn,N; R22-43-50/53	064700-56-7	265-024-8
Fluroxypyr 1-methylheptyl ester	108 g/L	R53	081406-37-3	279-752-9
Clopyralid	50 g/L	Xi; R41, N; R51/53	001702-17-6	216-935-4
Aromatic hydrocarbon solvent	536 g/L	Xn,N; R10-37-51/53-65-66-67	064742-95-6	265-199-0
N-Methyl-2-pyrrolidone	50 g/L	Xi; R36/38	000872-50-4	212-828-1
Inert ingredients	Balance			
Composition Code	GF0818			

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3. HAZARDS IDENTIFICATION

Flammable. Irritating to respiratory system and skin. Risk of serious damage to eyes. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness.

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. Consult a physician if irritation persists. Wash contaminated clothing before reuse.

Inhalation

Remove to fresh air. Consult a physician.

Note to Physician

This material contains a mixture of solvents. 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.

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Protection of Firefighters

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**

Prevent skin and eye contact. 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 course or drainage system.

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.

7. HANDLING AND 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**

Triclopyr: Dow AgroSciences IHG is 2 mg/m³ (skin).
Fluroxypyr 1-methylheptyl ester: Dow AgroSciences IHG is 10 mg/m³.
Clopyralid: Dow AgroSciences IHG is 10 mg/m³.

Engineering Controls

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

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Respiratory Protection

When airborne exposure guidelines and/or comfort levels may be exceeded, 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. 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 chemical goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: amber
Odour	: faint aromatic
Rel. density (water=1)	: 1.001 g/cm ³ (20 deg.C)
Water solubility	: emulsifiable
Flash point	: 50 deg.C (PMCC)
Explosive properties	: not explosive
Surface tension	: 30.2 mN/m (25 deg.C)
Self-ignition temperature	: 430 deg.C

10. STABILITY AND REACTIVITY**Chemical Stability**

Is stable under normal storage conditions.

Conditions to Avoid

Avoid high temperatures (at or near flash point), open flame, sparks and direct sunlight.

Materials to Avoid

None known.

Hazardous Decomposition Products

None under normal conditions of storage and use.

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11. TOXICOLOGICAL INFORMATION

Based on data for similar formulation.

Ingestion

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

Skin Contact

The dermal LD50 for rats is >5000 mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Short single exposure may cause skin irritation.

Sensitisation

Sensitising to guinea pig skin.

Eye Contact

May cause moderate and prolonged irritation with corneal injury.

Inhalation

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.

Triclopyr butoxyethyl ester:

Rapidly hydrolysed in soil and water (with a half-life of less than 1 day) to the parent acid, which undergoes further degradation. Half-life of the parent acid in soil is dependent on conditions and is approximately 6-52 days.

Fluroxypyr 1-methylheptyl ester:

Rapidly hydrolysed in soil and water (with a half-life of less than 1 day) to the parent acid, which undergoes further degradation. Half-life of the parent acid in soil and water is dependent on conditions and is approximately 14-56 days.

Clopyralid:

Half-life in soils is dependent on soil type and conditions and is approximately 12-62 days.

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Aquatic Toxicity

Based on data for similar 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 harmful to algae (10mg/l< IC50 <100mg/l).

Avian Toxicity

Assessment largely or completely based on data for active ingredient.

Triclopyr butoxyethyl ester:

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

Fluroxypyr 1-methylheptyl ester:

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

Clopyralid:

Material is slightly toxic to birds on an acute basis (500mg/kg <LD50 <2000mg/kg).

Other Information

Assessment largely or completely based on data for active ingredient.

Triclopyr butoxyethyl ester: Non-toxic to bees.

Clopyralid: Non-toxic to bees.

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: FLAMMABLE LIQUID,N.O.S. (Aromatic Hydrocarbon)
(Non Viscous)

Truck/Rail ADR/RID : 3 Label : 3

Classification Code : F1

Packing Group : III

Kemler Code : 30 UN Number : 1993

Tremcard Nr. CEFIC : 30GF1-III

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Sea

Proper shipping name: FLAMMABLE LIQUID,N.O.S. (Aromatic Hydrocarbon)
 Sea - IMO/IMDG Class: 3 UN Nr : 1993 Label: 3
 Packing Group : III EMS : F-E,S-E
 Marine Pollutant : Y (Y/N)

Air

Proper shipping name: FLAMMABLE LIQUID,N.O.S. (Aromatic Hydrocarbon)
 Air-ICAO/IATA Class : 3 UN Nr : 1993 Label: 3
 Sub Class :
 Packing Group : III Pack Instr. Passenger : 309
 Pack Instr. Cargo : 310

Remarks : Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

Hazard Symbol : Xn - Harmful
 N - Dangerous for the Environment

Risk Phrases : Flammable (R10).
 Irritating to respiratory system and skin (R37/38).
 Risk of serious damage to eyes (R41).
 May cause sensitisation by skin contact (R43).
 Toxic to aquatic organisms, may cause long-term
 adverse effects in the aquatic environment (R51/53).
 Harmful: may cause lung damage if swallowed (R65).
 Vapours may cause drowsiness and dizziness (R67).

Safety Phrases : 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 and eye/face protection (S37/39)
 .
 Use appropriate containment to avoid environmental
 contamination (S57).
 If swallowed, do not induce vomiting: seek medical
 advice immediately and show this container or label
 (S62).

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

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16. OTHER INFORMATION

Risk-phrases in Section 2

- R10 - Flammable.
- R22 - Harmful if swallowed.
- R36/38 - Irritating to eyes and skin.
- R37 - Irritating to respiratory system.
- R41 - Risk of serious damage to eyes.
- R43 - May cause sensitisation by skin contact.
- 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.
- R53 - 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.