

SAFETY DATA SHEET

7/2/01

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

Dow AgroSciences Limited
Latchmore Court
Brand Street
Hitchin
Herts SG5 1NH

Emergency Telephone Number: UK: 0870 600 2999
Eire: 01 821 4999

Poisons Information Centre: UK: 0121 507 5588/5589
Eire: 01 837 9964/66

Product Name: **GARLON* 4 HERBICIDE : MAFF 05090**

LV70: 38322

Issue Date: Nov. 94

Ref: H851V

Revised: Nov. 00 (Section(s) 1, 3, 13 & 15)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components contributing to hazard:

		CAS	EINECS
Triclopyr-2-butoxyethyl ester	665 g/L	064700-56-7	265-024-8
Solvent plus inert ingredients	Balance		

3. HAZARDS IDENTIFICATION

Harmful in contact with skin and if swallowed.
Harmful: may cause lung damage if swallowed.
Irritating to skin.
May cause sensitization by skin contact.
Dangerous to fish or other aquatic life.

* GARLON Trademark of Dow AgroSciences

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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 and/or transport to emergency facility immediately. The decision of whether to induce vomiting or not should be made by an attending physician.

Eye Contact

Irrigate immediately with water for at least 5 minutes.

Skin Contact

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash contaminated clothing before reuse.

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. Foam.

Hazardous Combustion Products

Nitrogen oxides. Hydrogen chloride. Phosgene. Dependent on the intensity of the fire.

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

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

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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).

Engineering Controls

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

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 impervious 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 safety glasses. Where contact with the liquid is likely, chemical goggles are recommended.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: amber
Rel. density (water=1)	: 1.08 g/cm ³ (approx.)
Rel. vapour density (air=1)	: >1
Boiling point/range	: 150 deg.C
Water solubility	: emulsifiable
Flash point	: 64 deg.C

10. STABILITY AND REACTIVITY

Chemical Stability

Is stable under normal storage conditions.

Conditions to Avoid

Avoid extremes of temperature. Closed containers may explode due to pressure build-up when subjected to excessive heat or intense fire.

Materials to Avoid

Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

Ingestion

Single dose oral toxicity is considered to be moderate.
The oral LD₅₀ for rats is 1100 mg/kg.

Skin Contact

The dermal LD₅₀ for rats is >2000mg/kg.
A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.
Short single exposure may cause skin irritation.

Sensitisation

Known or suspected skin sensitiser.

Eye Contact

May cause slight eye irritation.

Inhalation

No adverse effects anticipated by this route of exposure incidental to proper handling.

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12. ECOLOGICAL INFORMATION

Persistence and Degradability

Assessment largely or completely based on data for active ingredient. 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 6-52 days.

Aquatic Toxicity

Material is highly toxic to fish on an acute basis (0.1mg/L <LC50 <1.0mg/L).
Material is moderately toxic to aquatic invertebrates on an acute basis (1mg/L <LC50 <10mg/L).

Avian Toxicity

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

Other Information

Non-toxic to bees.

13. DISPOSAL CONSIDERATIONS

Dangerous to fish or other aquatic life. 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 & Barge

Proper shipping name: 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Triclopyr-2-butoxyethyl ester 61.5% w/w)

Truck - ADR Loaded	: 9-11c	Empty	: 9-21	Label	: 9
Rail - RID Loaded	: 9-11C	Empty	: 9-21	Label	: 9
		Filling %		Packed	:
		Filling %		Bulk	:
		Filling Kg/L		(Gas)	:
Kemler Code	: 90	UN Number			: 3082
Tremcard Nr. CEFIC	: 90G01				
Tremcard Nr. Other	:				
Barge - ADNR Loaded	: 9-11c	Empty	: 9-21c	Label:	9
Ship Type	:	CATG.	:		

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Sea

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.(Contains Triclopyr-2-butoxyethyl ester
61.5% w/w)

Sea - IMO/IMDG Class:	9	UN Nr	: 3082	Label:	9
Packing Group	: III	EMS	: -	MFAG	: -
Container Type	:	Marine Pollutant	:	Y	(Y/N)
Test Pressure (bar)	:	Filling % Packed	:		
		Filling % Bulk	:		
		Filling Kg/L (Gas)	:		

Air

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.(Contains Triclopyr-2-butoxyethyl ester)

Air-ICAO/IATA Class	: 9	UN Nr	: 3082	Label:	9
Sub Class	:				
Packing Group	: III	Pack Instr. Passenger	:	914	
		Pack Instr. Cargo	:	914	

Remarks : Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

Hazard Symbol : Xn - Harmful

Risk Phrases : Harmful in contact with skin and if swallowed.
(R21/22)
Harmful: may cause lung damage if swallowed. (R65)
Irritating to skin. (R38)
May cause sensitisation by skin contact. (R43)

Safety Phrases : Keep out of reach of children. (S2)
Keep away from food, drink and animal feeding stuffs.
(S13)
When using do not eat, drink or smoke. (S20/21)
Wear suitable protective clothing, gloves and
eye/face protection. (S36/37/39)
If swallowed, do not induce vomiting: seek medical
advice immediately and show this container or label.
(S62)

16. OTHER INFORMATION

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