

SAFETY DATA SHEET

30/11/10

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

Dow AgroSciences Limited

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Emergency Telephone Number:

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Product Name: **DOXSTAR* HERBICIDE (GF-159) MAPP 11063 (PCS No. 00765)**

LV70: 79621

Issue Date: Nov. 01

Ref: LF718

Revised: Dec. 10 (Section(s) 2, 3, 4, 16)

For question about this SDS, contact: SDSquestion@dow.com

2. HAZARDS IDENTIFICATION

Flammable. Harmful if swallowed. Irritating to respiratory system and skin. 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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

			CAS	EC No
Triclopyr-2-butoxyethyl ester	14.3%	Xn,N; R22-43-50/53	064700-56-7	265-024-8
Fluroxypyr 1-37-3 279-752-9 methylheptyl ester	14.8%	N; R50/Unfortunately I 53		081406-
Solvent naphtha (petroleum), light aromatic	60-70%	Xn,N; R10-37-51/53-65-66-67	64742-95-6	265-199-0
Alkyl benzene sulphonate	<5%	Xi; R38-41		247-557-8
plus Inert ingredients	Balance			
Composition Code	GF0159			

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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

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

Signs of toxicity are most likely to be due to the solvent. 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.

Emergency personnel protection

If potential exposure exists refer to Section 8 for specific personal protective equipment.

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 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.

Additional Information

Eliminate all ignition sources.

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. Avoid breathing vapours.

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**

None established for the preparation.

Triclopyr butoxyethyl ester: Dow AgroSciences IHG is 2 mg/m³ (skin).

Solvent naphtha (petroleum), light aromatic: Supplier recommendation for solvent is 19 ppm.

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.

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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. 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	: liquid
Colour	: brown
Rel. density (water=1)	: 0.974 g/cm ³ (20 deg.C)
Water solubility	: emulsifiable
Flash point	: 50 deg.C (PMCC)
Autoignition temperature	: 440 deg.C
Explosive properties	: not explosive
Surface tension	: 30.1 mN/m (25 deg.C)
pH typical range	: 4-5 (25 deg.C) (1% aq. sol.)

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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

Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

Ingestion

Moderate toxicity if swallowed.
The oral LD50 for male rats is 1288mg/kg.

Skin Contact

The dermal LD50 for rats is >2000mg/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 eye irritation.

Inhalation

No adverse effects anticipated by this route of exposure, but excessive exposure should be avoided.

Additional Information

Components: 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 and water 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.

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Aquatic Toxicity

Based on data for the formulation.

Material is toxic to fish on an acute basis (1mg/l < IC50 < 10 mg/l).

Material is toxic to aquatic invertebrates on an acute basis

(1mg/l < IC50 < 10 mg/l).

Material is harmful to algae (10mg/l < IC50 < 100 mg/l).

Avian Toxicity

Based on data for the formulation.

Material is practically non-toxic to birds on an acute basis (LD50

> 2000mg/kg).

13. DISPOSAL CONSIDERATIONS

For aquatic organisms, material is expected to be Toxic. 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. (Petroleum Distillate and Triclopyr)

Truck/Rail ADR/RID : 3 Label : 3

Classification Code : F1

Packing Group : III

Kemler Code : 30 UN Number : 1993

Tremcard Nr. CEFIC : 30GF1-III

Sea

Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Petroleum Distillate and Triclopyr)

Sea - IMO/IMDG Class: 3 UN Nr : 1993 Label: 3

Packing Group : III EMS : 3-07

Marine Pollutant : Y (Y/N)

Air

Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Petroleum Distillate and Triclopyr)

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.

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15. REGULATORY INFORMATION

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

Risk Phrases : Flammable (R10).
Harmful if swallowed (R22).
Irritating to respiratory system and skin (R37/38).
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).
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.

16. OTHER INFORMATION

Risk-phrases in Section 3

R10 - Flammable.
R22 - Harmful if swallowed.
R37 - Irritating to respiratory system.
R43 - May cause sensitisation by skin contact.
R38 - Irritating to skin.
R41 - Risk of serious damage to eyes.
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.