

MATERIAL SAFETY DATA SHEET

Tribute Selective Turf Herbicide



Date of Issue: May 19th, 2011

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

Product name: **Tribute[®] Selective Turf Herbicide**
Other names: None
UVP: 79644205
Chemical group: Sulfonyl urea
Recommended use: Herbicide
Formulation: Oil Dispersion (OD)
Supplier: Bayer Environmental Science – A Business Group of Bayer CropScience Pty Ltd
ABN 87 000 226 022
Address: 391 - 393 Tooronga Road, East Hawthorn
Victoria 3123, Australia
Telephone: (03) 9248 6888
Technical
Information Services: 1800 804 479
Facsimile: (03) 9248 6800
Website: www.bayeres.com.au
Contact: Technical Manager (03) 9248 6854
Emergency
Telephone Number: 1800 033 111 – Orica SH&E Shared Services

2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE (NOHSC) – NON-DANGEROUS GOODS (ADG code)

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Harmful: may cause lung damage if swallowed. Irritating to skin.

Hazard designation: Hazardous (National Occupational Health and Safety Commission - NOHSC)

Risk phrases: R38 – Irritating to skin.
R50/53 – Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 – Harmful: may cause lung damage if swallowed.

Safety phrases: See Sections 4, 5, 6, 7, 8, 9, 13

ADG classification: Not a "Dangerous good" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. For transport by sea, Tribute Selective Turf Herbicide is a MARINE POLLUTANT. See Section 14.

SUSMP classification: Schedule 5 (Standard for the Uniform Scheduling of Medicines and Poisons).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Concentration (g/L):
Foramsulfuron	[173159-57-4]	22.5
Heavy aromatic naphtha petroleum distillate	[64742-94-5]	310

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Propylene carbonate	[108-32-7]	3
Other ingredients	(non hazardous)	~660

4. FIRST AID MEASURES

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to a doctor.

- Inhalation:** Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
- Skin contact:** Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.
- Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
- Ingestion:** Do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth.
- First Aid Facilities:** Ensure eye wash and safety shower are available when handling this product.
- Symptoms:** The product can cause irritation of the skin and eyes.
- Medical attention:** Treat symptomatically.
In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.

5. FIRE FIGHTING MEASURES

- Extinguishing media:** Water spray, carbon dioxide, foam, sand.
- Hazards from combustion products:** In the event of fire, hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxides may be produced.
- Precautions for fire fighters:** Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1716), as toxic and irritating decomposition products may be produced in a fire. If it can be done safely, remove intact containers from the fire. Otherwise, use water spray to cool them. Bund area to prevent contamination of water sources. Dispose of fire control extinguishing agent and spillage later in a safe manner. Do not release contaminated water into the environment.

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6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled material or contaminated surfaces. When dealing with the spillage do not eat, drink or smoke and wear personal protective clothing and equipment as detailed in 'Personal Protection' section. Keep people and animals away. Prevent spillage from entering drains, sewers or watercourses. Contain/absorb spillage in sand/earth or other suitable inert material. Transfer collected material to sealable containers. Seal and label containers ready for disposal. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

7. HANDLING AND STORAGE

Handling: Use only in area provided with appropriate exhaust ventilation.
Keep away from heat and sources of ignition.

Storage: Store in original container tightly closed in a cool, dry, well-ventilated area. Keep away from food, drink and animal feeds. Keep out of direct sunlight and avoid frosts. Store between 0-30 °C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters:

Components	CAS-No.	Control parameters	Update	Basis
Foramsulfuron	173159-57-4	10 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Personal protective equipment:

In normal use and handling conditions:

Eyes: Wear goggles.

Clothing: When preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat.

Gloves: Elbow-length PVC gloves.

Respiratory: Protection is generally not required when using this product.

In all other cases the following recommendations would apply:

Respiratory protection: Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and

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maintenance.

Hand protection: Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.

Eye protection: Wear goggles conforming to EN166 (Field of Use 5 or equivalent).

Skin and body protection: Wear standard overall and type 6 suit.
Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.
If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

Hygiene measures: Avoid contact with skin, eyes and clothing.
Keep working clothes separately.
Wash hands immediately after work, if necessary take a shower.
Remove soiled clothing immediately and clean thoroughly before using again.
Garments that cannot be cleaned must be destroyed (burnt).
Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Beige liquid
Odour:	Aromatic
Vapour pressure:	1.3 x 10 ⁻¹⁰ Pa (25°C) – foramsulfuron
Vapour density:	Not available
Boiling point:	Not available
Solubility:	Dispersible
Density:	0.96 g/cm ³ at 20 °C
pH:	5.0 - 7.0
Flash point:	> 100 °C
Flammability (explosive) limits:	Not applicable
Auto-ignition temperature:	350 °C
Octanol/water	K _{ow} = 4.01 (20 °C) – foramsulfuron

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partition coefficient:

Formulation: Oil Dispersion (OD)

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions of use.

Hazardous polymerisation: No information available.

Incompatible materials: Avoid extremes of temperature, oxidising agents, strong acids and alkalis.

Hazardous decomposition products: In the event of fire, hydrogen chloride, hydrogen cyanide, carbon monoxide and nitrogen oxides may be produced.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Inhalation: Product is of low toxicity by the inhalation route.

Skin contact: Irritating to the skin.

Eye contact: May cause irritation to the eyes.

Ingestion: Product may cause lung damage if swallowed.

Other: None.

ANIMAL TOXICITY DATA – PRODUCT AND ACTIVE INGREDIENT:

Acute:

Oral toxicity: LD₅₀ rat: > 5000 mg/kg

Dermal toxicity: LD₅₀ rat: > 5000 mg/kg

Inhalation toxicity: LC₅₀ (4 h) rat: > 5.25 mg/L

Skin irritation: Irritating – rabbit

Eye irritation: Slightly irritating – rabbit

Sensitisation: Non-sensitising – Guinea pig
OECD Test Guideline 406, Buehler test

Information given is based on data obtained from similar substances.

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Chronic:

Foramsulfuron is not mutagenic, carcinogenic or teratogenic.

12. ECOLOGICAL INFORMATION

Fish toxicity:	Similar formulation: LC ₅₀ (96h): 7.8 mg/L (Bluegill sunfish) Similar formulation: LC ₅₀ (96h): 14 mg/L (Rainbow trout)
Daphnia toxicity:	Similar formulation: LC ₅₀ (48h): 6.9 mg/L
Toxicity to algae:	Similar formulation: EC ₅₀ (96h): 3.5 mg/L
Bird toxicity:	Similar formulation: LD ₅₀ > 2000 mg/kg (Bobwhite quail)
Bee toxicity:	Similar formulation: LD ₅₀ (oral) = 226 µg/bee Similar formulation: LD ₅₀ (contact) > 392 µg/bee
Other:	None
Environmental fate, persistence and degradation:	Foramsulfuron is rapidly degradable in soil.

13. DISPOSAL CONSIDERATIONS

Rinse containers before disposal. Add rinsings to spray container. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

ADG

According to AU01, Environmentally Hazardous Substances in packagings, IBCs or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code.

IMDG

UN-Number:	3082
Labels:	9
Packaging group:	III
EmS:	F-A , S-F
Marine pollutant:	Marine Pollutant
Description of the goods:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKYL (C3-C6) BENZENE SOLUTION)

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IATA

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15. REGULATORY INFORMATION

Not yet registered according to the Agricultural and Veterinary Chemicals Act 1994.

Australian Pesticides and Veterinary Medicines Authority Approval Number: N/A

16. OTHER INFORMATION

Trademark information: Tribute is a registered trademark of Bayer.

Preparation information: Replaces 22 May 2008.

Data sources: Bayer CropScience Pty Ltd product safety data and published data.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

END OF MSDS