



SAFETY DATA SHEET

Product Name: **Impact Endure in-Furrow and Foliar Fungicide**

Issued by: Ospray Pty Ltd

Issue Date: March 2013

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FOR 24 HOUR ADVICE IN AN EMERGENCY ONLY PHONE 1800 033 111

1. Identification of Chemical Product and Company

Ospray Pty Ltd
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Phone: 07 4685 2441 (BH)
Freecall: 1800 624 597 (BH)
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Substance: Flutriafol.
Trade Name: **Impact Endure in-Furrow and Foliar Fungicide**
APVMA No.: 63183
Product Use: For control of certain fungal diseases on wheat, barley and canola when mixed with fertiliser or applied as a foliar spray as described on the product label.

2. Hazards Identification

Hazard Classification: HAZARDOUS SUBSTANCE. NOT DANGEROUS GOODS.

Hazard classification according to the criteria of NOHSC.

Dangerous goods classification according to the Australia Dangerous Goods Code.

Risk phrases: R41, R20/22, R48/22, R51/53. Risk of serious damage to eyes. Harmful by inhalation and if swallowed. Harmful: danger of serious damage to health by prolonged exposure if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

Safety phrases: S20, S23, S26, S38, S60, S61, S36/37/39. When using, do not eat or drink. Do not breathe spray mists. In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. In case of insufficient ventilation, wear suitable respiratory equipment. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/Safety Data Sheets. Wear suitable protective clothing, gloves and eye/face protection.

Poison Schedule: S6

3. Composition/Information on Ingredients

Ingredient Name	CAS No.	Proportion
Flutriafol	76674-21-0	500 g/L
Other ingredients (non-hazardous)	-	Balance

4. First Aid Measures

If poisoning is suspected contact the Poisons Information Centre. Phone Australia 131126.

Inhalation: Over-exposure by inhalation is improbable. Check for other causes of observed symptoms and seek medical advice.

Skin Contact: Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use.

Eye Contact: If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice immediately.

Ingestion: If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label. Make every effort to prevent vomit from entering the lungs by careful placement of the patient.

5. Fire Fighting Measures

Suitable Extinguishing Media: Not Combustible. Use extinguishing media suited to burning materials.

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. This product is likely to decompose only after heating to dryness, followed by further strong heating. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Special Protective Equipment for fire fighters: Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.

Other Information: If a significant quantity of this product is involved in a fire, call the fire brigade.

6. Accidental Release Measures

Spills and Disposal: Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal.



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Personal Protection: For appropriate personal protective equipment (PPE) refer section 8.

Clean-up Methods – Large spillages: Place damaged containers in recovery bins (if available) and return to manufacturer. If large liquid spills occur, attempt to recover as much spilt material from sumps and bunded areas as possible, before absorbing remaining material into vermiculite or other absorbent. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services.

7. Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Protect this product from light. Store in the closed original container in a dry, cool, well ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

8. Exposure Controls and Personal Protection

National Exposure Standards: No exposure standard for this product has been set, however, an exposure standard has been recommended for flutriafol at 1.5 mg/m³. NOHSC has set the following exposure standard for propylene glycol (particulates) : TLV (TWA) 10 mg/m³, STEL -.

Engineering Controls: Handle in well ventilated areas, generally natural ventilation is adequate.

Personal Protective Equipment: When opening the container, preparing product for use and using the prepared product, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, elbow-length PVC gloves, goggles and a half face piece respirator.

Re-entry period: Do not enter treated area until spray has dried.

Hygiene Measures After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.

Requirements Concerning Special Training: Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

9. Physical and Chemical Properties

Appearance:	Yellow or red liquid
Odour:	Characteristic odour
Boiling point:	Approximately 100°C at 100kPa
Freezing/Melting	No specific data. Liquid at normal temperatures
Solubility in water:	Solubility of flutriafol is 130 mg/l @ pH 7-9. Disperses in water.
Specific gravity:	1.18-1.20 g/mL
pH:	7-9
Vapour pressure:	7.6 x 10 ⁻⁶ mPa for flutriafol
Volatile component:	~60%
Octanol / water partition coefficient:	Kow Log P is 2.3 for flutriafol
Flash point:	Will not burn until water component is driven off
Flammability:	Does not burn
Auto ignition temperature:	Does not burn.
Explosion properties:	No information

10. Stability and Reactivity

Chemical stability: Stable under normal storage conditions.

Conditions to avoid: Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight

Incompatibilities: strong acids, strong bases, strong oxidising agents.



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Fire Decomposition: This product is likely to decompose only after heating to dryness, followed by further strong heating. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres..

Polymerisation: This product will not undergo polymerisation reactions.

11. Toxicological Information

Inhalation:	May cause irritation to the respiratory tract.
Ingestion:	Amounts swallowed incidental to normal handling procedures and use are not expected to cause injury.
Skin:	Not a skin irritant and not harmful by dermal exposure.
Eye:	May cause some discomfort if contact is prolonged.
Chronic effects:	Evidence from animal studies indicate that repeated or prolonged exposure to flutriafol can result in embryo/foetotoxic effects and liver disorders.
Carcinogenicity:	The weight of the evidence is that flutriafol is not carcinogenic.
Reproductive toxicity:	Data indicates no teratogenic effects for flutriafol. At doses toxic to maternal animals, flutriafol has been shown to produce developmental toxicity in a number of species. NOEL: 10 mg/kg/day (rat); and NOEL 7.5 mg/kg/day (rabbit).
Acute toxicity:	Oral LD ₅₀ (rat) 1140 mg/kg for flutriafol. Dermal LD ₅₀ (rat) >1000 mg/kg for flutriafol. Inhalation LC ₅₀ (rat) (4hr) 1.65 mg/l for flutriafol. Eye Irritation Mild eye irritant. Skin Irritation Not a skin irritant.
Other information	The Australian Acceptable Dietary Intake (ADI) for flutriafol for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

12. Ecological Information

Mobility:	Flutriafol has moderate mobility in soil. Absorption depends on soil pH and organic matter content.
Persistence / degradability:	Not readily degradable. Not expected to bioaccumulate.
Known harmful effects on the environment:	Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment. This product is not readily biodegradable. However, likely to degrade slowly in the soil or water and not cause long term problems. The product is toxic to fish, aquatic invertebrates and aquatic plants.
Precautions:	Do not contaminate streams, rivers or waterways with the chemical or used containers.
Acute fish toxicity:	Rainbow trout (<i>Oncorhynchus mykiss</i>) 96-h LC ₅₀ : 12.54 mg/l
Acute daphnia toxicity:	Daphnids (<i>Daphnia magna</i>) 48-h EC ₅₀ : 8.08 mg/l
Algae toxicity:	Algae Green algae (<i>Desmodesmus subspicatus</i>) 72-h EC ₅₀ : 6.30 mg/l
Acute toxicity – other organisms:	Birds: LD ₅₀ female mallard: >5000mg/kg Bees: LD ₅₀ >5µg/bee

13. Disposal Considerations

Product disposal: On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).

Container Disposal: Do not use this container for any other purpose. Triple or preferably pressure rinse inner bladder or containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations.



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DO NOT burn empty containers or product. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program.

Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage.

14. Transport Information

Land transport: Considered non dangerous for road and rail transport (in packaging, including IBCs not greater than 3000 Lt each) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01. For bulk shipments as Class 9, use UN 3082, HazChem code 2Z

Sea transport: Marine pollutant
(IMDG)

UN Number 3082

UN Proper ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Shipping Name (contains flutriafol)

15. Regulatory Information

Poisons Schedule: S6

Packaging & Labelling: POISON, KEEP OUT OF REACH OF CHILDREN, READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Hazard category: Harmful

Other information: This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 63183

16. Other Information

This Material Safety Data Sheet 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 SDS 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.

DISCLAIMER

This product must be used, stored and handled strictly as directed in accordance with the label and this Safety Data Sheet. To the extent permitted by law, Ospray Pty Ltd, the trademark owner, manufacturer and vendors of the product will not be liable for any loss or damage arising from use, storage or handling contrary to the product label and MSDS.