



Material Safety Data Sheet

Based on available information, not classified as hazardous according to criteria of NOHSC.
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

1. Identification of the substance/preparation and of the company/undertaking

Product Name: IMPACT (R) IN-FURROW AND FOLIAR FUNGICIDE

Synonyms: Crop Care MSDS No. 42538

Supplier: Crop Care Australasia Pty Ltd

ABN: 061 362 347

Street Address: 77 Tingira Street
Pinkenba, Queensland 4008
Australia

Telephone Number: +61 7 3867 9100

Facsimile: +61 7 3867 9110

Emergency Telephone: 1 800 033 111 (ALL HOURS)

2. Composition/information on ingredients

Product Description: Fungicide.
Blue or yellow liquid.

Other ingredients determined not to be hazardous	>60%	-
Flutriafol 76674-21-0	23% (250 g/L)	R20/21/22 R52/53

3. Hazards identification

Poisons Schedule: S6 Poison.

4. First-aid measures

For advice, contact a Poisons Information Centre (Phone eg. Australia 131 126; New Zealand 03 474 7000) or a doctor.

Inhalation: Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

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Skin Contact: If skin contact occurs, remove contaminated clothing and wash skin with running water. If irritation occurs seek medical advice.

Eye Contact: If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek medical advice.

Notes to physician: Treat symptomatically.

5. Fire-fighting measures

Specific Hazards: Non-combustible material.

Fire-fighting advice: Not combustible, however following evaporation of the water component of the material, the residual material can burn if ignited. On burning will emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

Suitable Extinguishing Media: Not combustible, however, if material is involved in a fire use: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. Accidental release measures

SMALL SPILLS: Wear protective equipment to prevent skin and eye contact. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal.

LARGE SPILLS: Wear protective equipment to prevent skin and eye contact. Avoid breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops or waterways has occurred advise emergency services or State Department of Agriculture.

7. Handling and storage

Handling advice: Avoid skin and eye contact and breathing in vapour, mists, and aerosols.

Storage advice: Store in the closed, original container in a cool, well-ventilated area. Do NOT store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers.

8. Exposure controls/personal protection

Occupational Exposure Limits:

No value assigned for this specific material by the National Occupational Health and Safety Commission. However, supplier recommended Exposure Standard(s):

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Flutriafol*: 8hr TWA = 5 mg/m³

*Supplier recommended.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Engineering Control Measures:

IN THE WORKPLACE: Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Keep containers closed when not in use.

Personal Protective Equipment:

Orica Personal Protection Guide No. 1, 1998: B - OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

MANUFACTURE, PACKAGING AND TRANSPORT: Wear overalls, safety glasses and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

If risk of inhalation exists, wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

PREPARATION AND USE OF PRODUCT: Avoid contact with eyes and skin. Avoid inhaling spray mist. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves and face shield or goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and face shield or goggles and contaminated clothing.

9. Physical and chemical properties

Physical state:	Liquid
Colour:	Blue / Yellow
Odour:	Mild
Solubility:	Dispersible in water.
Specific Gravity:	1.09
Relative Vapour Density (air=1):	N Av
Vapour Pressure (20 °C):	N Av
Flash Point (°C):	N App
Flammability Limits (%):	N App
Autoignition Temperature (°C):	N App

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% Volatile by Weight: N Av
Solubility in water (g/L): N Av
Melting Point/Range (°C): N App
Boiling Point/Range (°C): N Av
Decomposition Point (°C): N Av
Sublimation Point (°C): N App
pH: N Av
Viscosity: N Av
Evaporation Rate: N Av

Partition Coefficient: LogPow (Flutriafol): 2.3

10. Stability and reactivity

Stability: Product is stable for at least 2 years under ambient storage conditions.

11. Toxicological information

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: No adverse effects expected, however, large amounts may cause nausea and vomiting.
Eye contact: May be an eye irritant.
Skin contact: Contact with skin may result in irritation.
Inhalation: Breathing in mists or aerosols may produce respiratory irritation.

Long Term Effects:

Evidence from animal tests indicate that repeated or prolonged exposure to flutriafol can result in embryo/foetotoxic effects and liver disorders.

Toxicological Data:

No LD50 data available for the product. However, for constituent(s)
FLUTRIAFOL:

Oral LD50 (rat): 5,600 mg/kg.
Dermal LD50 (rat): >1,000 mg/kg.
Inhalation LC50 (rat): 1.65 mg/L/4hr (respirable).
SKIN: Non-irritant (rat). Not a skin sensitiser.
EYES: Mild irritant (rabbit).

Studies of flutriafol in animals have shown that repeated doses do not produce carcinogenic effects. Chronic studies in animals have shown that repeated doses primarily attack the liver.

Studies in animals have shown that repeated doses produce embryo/foetotoxic effects (not teratogenic). A No Observable Effect Level of 10 mg/kg has been reported in the rat.

ADI (Acceptable Daily Intake) for humans is 0.01 mg/kg bw/day.

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12. Ecotoxicological information

Avoid contaminating waterways.
For FLUTRIAFOL:

Environmental fate, persistence and degradation:

Flutriafol is rapidly and completely degraded by microbial degradation in soil and water. The half life in soil is 1.5 days and in water 1-4 days.

Aquatic toxicity:

Harmful to aquatic organisms. Risk of bioaccumulation in an aquatic species is low.

Log Octanol/Water Partition Coefficient: 2.3
48hr LC50 (Daphnia magna): 78 mg/L.
96hr LC50 (rainbow trout): 61 mg/L.

Terrestrial toxicity:

Harmless to terrestrial species. Low toxicity to bees.

Oral LD50 (mallard duck): >5,000 mg/kg (females).
Oral LD50 (ug/bee): >5 ug/bee.

13. Disposal considerations

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. 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

Road and Rail Transport

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Marine Transport

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

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15. Regulatory information

Classification: Based on available information, not classified as hazardous according to criteria of NOHSC.
Risk Phrase(s): No risk phrases allocated.
Safety Phrase(s): No safety phrases allocated.
Poisons Schedule: S6 Poison.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS) or are National Registration Authority (NRA) approved active constituents.

16. Other information

Supplier Material Safety Data Sheet; 2000.
ADI List, Commonwealth Department of Health and Family Services. 2001.
In: 'The Pesticide Manual'. 12th Edition. Ed. CDS Tomlin. British Crop Protection Society, 2000.

Reason(s) for Issue:
5 Yearly Revised Primary MSDS

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Crop Care Australasia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Crop Care representative or Crop Care Australasia Pty Ltd at the contact details on page 1.

Crop Care Australasia's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

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