

# Material Safety Data Sheet

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Infosafe No. 3NU2S Issue Date : October 2004 ISSUED by CROPCARE

Product Name : **ARMOUR C Seed Dressing**

Classified as hazardous according to criteria of NOHSC

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

**Product Name** ARMOUR C Seed Dressing  
**Product Code** 5109  
**Product Use** Seed dressing for treatment of wheat and barley as per the directions for use table on the label.  
**Company Name** CROP CARE AUSTRALASIA PTY LTD (ABN 53 061 362 347)  
**Address** 77 Tingira Street Pinkenba  
Queensland 4008 Australia  
**Emergency Tel.** 1 800 033 111  
**Telephone/Telex Number** Tel: (07) 3867 9100 Fax: (07) 3867 9110  
**Product Type** Group C Fungicide  
Group 3A Insecticide

### Other Information

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical** Solid

### Characterization

<b>Ingredients</b>	<b>Name</b>	<b>CAS</b>	<b>Proportion</b>
	Cypermethrin	52315-07-8	4 g/Kg
	Inert filler (non-hazardous)		Remainder
	Flutriafof	76674-21-0	100 g/Kg
	Talc	14807-96-6	>600 g/Kg

## 3. HAZARDS IDENTIFICATION

**Other Information** Poisons Schedule 6

## 4. FIRST AID MEASURES

**Inhalation** Remove affected person to fresh air until recovered.  
If symptoms develop or persist, seek medical advice.

**Ingestion** If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust).  
Make every effort to prevent vomit from entering the lungs by careful placement of the patient.  
Give a glass of water.

**Skin** Wash affected areas thoroughly with soap and water.  
Remove contaminated clothing and launder before re-use.  
If irritation persists, seek medical advice.

**Eye** If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.  
If irritation persists consult a doctor.

**First Aid Facilities** If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26 (Australia).

**Advice to Doctor** Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Extinguishing Media** If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.

**Hazardous** Non-combustible.

### Combustion Products

**Emergency Action in case of Fire** If exposed to fire, keep container cool by spraying with water.

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**Protective Equipment** Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.

## 6. ACCIDENTAL RELEASE MEASURES

**Spills & Disposal** Recover the product by sweeping up or vacuuming without raising dust. Collect spilled material and waste in sealable open-top type containers for disposal.

**Personal Protection** For appropriate personal protective equipment (PPE), refer Section 8.

## 7. HANDLING AND STORAGE

**Storage** Store in the closed, original container in a dry, well ventilated area out of direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs. Store in a locked enclosure.

## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

**Exposure Limits** No exposure standard for this product has been set, however, an exposure standard has been set for talc at 2.5 mg/m<sup>3</sup>. No exposure standard for this product has been set, however, an exposure standard has been recommended by the supplier for flutriafol at 1.5 mg/m<sup>3</sup>.

**Respiratory Protection** If dusts are present, wear a class P1 dust mask.

**Personal Protective Equipment** When preparing and using the product wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield.

**Eng. Controls** Use in a well ventilated area only.

**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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** Green free flowing powder

**Solubility in Water** Insoluble

**Partition co-efficient, n-octanol/water** Kow Log P is 2.3 for flutriafol and 6.6 for cypermethrin

## 10. STABILITY AND REACTIVITY

**Hazardous Polymerization** Hazardous polymerisation is not possible.

## 11. TOXICOLOGICAL INFORMATION

**Toxicology Information** No harmful effects are expected if the precautions on the label and this MSDS are followed.

**Inhalation** Inhalation of dust may result in respiratory irritation.

**Ingestion** Possible symptoms of exposure include: nausea, vomiting and gastrointestinal discomfort and diarrhoea. Ingestion of the solid is not a likely route of exposure.

**Skin** Prolonged contact with the concentrate may cause irritation. May cause sensitisation by prolonged skin contact.

**Eye** May irritate the eyes.

**Chronic Effects** Regular exposure may result in liver disorders.

**Reproductive Toxicity** Studies in animals have shown that repeated doses of flutriafol product reproductive effects (not teratogenic). NOEL: 10 mg/kg/day (rat); and NOEL 7.5 mg/kg/day (rabbit).

**Carcinogenicity** Data indicates no carcinogenic effects.

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**Acute Toxicity - Oral** LD50 (rat) 1140 mg/kg for flutriafol  
LD50 (rat) 250 - 4150 mg/kg for cypermethrin

**Acute Toxicity - Dermal** LD50 (rat) >1000 mg/kg for flutriafol

**Acute Toxicity - Inhalation** LC50 (rat) (4hr) 1.6 mg/l for flutriafol  
LC50 (rat) (4hr) 2.5 mg/l for cypermethrin

**Eye Irritation** Mild eye irritant.

**Skin Irritation** Mild skin irritant.

**Skin Sensitisation** Skin contact may produce skin sensations such as numbing, burning and tingling. These sensations are reversible and usually subside within 12 hours.

**Other Information** The Australian Acceptable Daily 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. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, June 2004).

The Australian Acceptable Daily Intake (ADI) for cypermethrin for a human is 0.05 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 5 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, June 2004).

## 12. ECOLOGICAL INFORMATION

**Known Harmful Effects on the Environment** Harmful to fish.

**Other Precautions** Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.  
Do not feed or expose treated seed to humans, wildlife and domestic animals, particularly birds.

**Persistence / Degradability** Average field half life of cypermethrin in soil is 60 days.  
The product is essentially insoluble in water and has low mobility in soil. There is evidence of rapid degradation in soil and hydrolysis in water. The expected half life in water is 5 days. The product is applied to seed for sowing - use pattern restricts movement into the environment.

**Acute Toxicity - Fish** The following is data for the active ingredient, flutriafol.  
LC50 (96 hr) for rainbow trout is 61 mg/l.  
The following is data for the ingredient, cypermethrin.  
LC50 (96 hr) for rainbow trout is 0.00069 mg/l

**Acute Toxicity - Daphnia** LC50 (48 hr) for flutriafol is 78 mg/l.  
LC50 (48 hr) for cypermethrin is 0.00015 mg/l.

**Acute Toxicity - Other Organisms** Bees: Toxic to bees. LD50 for flutriafol is >5 µg/bee.  
Bees: Toxic to bees. LD50 for cypermethrin is 0.035 µg/bee.  
Not toxic to birds.  
LD50 for (flutriafol) mallard ducks, female is >5,000 mg/kg  
LD50 for (cypermethrin) mallard ducks is >10,000 mg/kg

## 13. DISPOSAL CONSIDERATIONS

**Product Disposal** On site disposal of the concentrated product is not acceptable.  
Seed treated with this product must not be used for animal consumption or be allowed to contaminate seed intended for animal consumption. Seed should not be left exposed on the ground (particularly during sowing). Destroy treated seed not intended for sowing.

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**Container Disposal** Shake the last amount of product from the bag into application equipment.  
Puncture or shred and bury containers in local authority landfill.  
If no landfill is available, bury the containers below 500mm 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

It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport.

**U.N. Number** None Allocated

**DG Class** None Allocated

**Hazchem Code** None Allocated

**Packing Group** None Allocated

**Storage and Transport** Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

## 15. REGULATORY INFORMATION

**Poisons Schedule** S6

**Packaging &** POISON

**Labelling** KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

## 16. OTHER INFORMATION

**Contact Person/Point** Normal Hours: Mr Volker Maier Phone: (03) 9282 1000  
After Hours: Shift Supervisor Phone: 1800 033 498

**Revisions Highlighted** The MSDS was reviewed. Minor changes were made to the information.  
...End Of MSDS...