

# SAFETY DATA SHEET

## LINURON<sup>®</sup> 50DF

Date of Issue: 25 February 2016

### 1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

**Chemical name of active ingredient(s):** Linuron 50DF

**Recommended use:** Herbicide

**Supplier:** Etec Crop Solutions Ltd  
31 Tamaki Bay Dr, Pakuranga, Auckland  
Phone 0800 100 325

**Emergency telephone number:** 0800 Poison (0800 764 766) 24 Hours

### 2. HAZARDS IDENTIFICATION

**Hazard Classification:** Toxic - 6.1D (acute oral toxicant), 6.3B (skin irritant), 6.4A (eye irritant), 6.8B (reproductive/development toxin), 6.9A (target organ toxin)  
Ecotoxic - 9.1A (aquatic toxicant), 9.2A (soil toxicant), 9.3C (terrestrial vertebrate toxicant)

**Required identification Details:** WARNING - KEEP OUT OF REACH OF CHILDREN  
ECOTOXIC

Very toxic to aquatic organisms.  
Very toxic in the soil environment.  
Harmful to terrestrial vertebrates.

HARMFUL - may be harmful if swallowed, inhaled or absorbed through the skin.  
May cause skin and/or eye irritation.  
May cause reproductive/development damage from repeated exposure at high doses.  
Toxic-may cause organ damage from repeated oral exposure at high doses. Very toxic to aquatic organisms. Very toxic to the soil environment. Harmful to terrestrial vertebrates.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance/preparation Information on hazardous ingredients

Common name	CAS No	%
Linuron (ISO)	330-55-2	50
Inert ingredients	not allocated	50

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## 4. FIRST-AID MEASURES

### Description of necessary first aid measures:

#### Effects and symptoms

#### First-aid measures

##### Inhalation:

Remove victim to fresh air. If breathing is difficult: artificial respiration. Get medical attention.

##### Ingestion:

Wash out mouth with plenty of water. Get medical attention. Never give anything by mouth to an unconscious person.

##### Skin contact:

Remove victim from area of exposure. Wash off remaining material with plenty of water. Remove contaminated clothing. Wash away remainder with water and soap.

##### Eye contact:

Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention. For advice contact the National Poisons Centre 0800 POISON (0800 764766)

##### Notes to a physician:

There is no specific antidote. Treat symptomatically and give supportive therapy.

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## 5. FIRE-FIGHTING MEASURES

#### HAZCHEM Code:

2X

#### Extinguishing media :

Water spray, foam, dry chemical.

#### Hazardous thermal (de)composition products:

Chloride compounds and nitrogen oxides

#### Protection of fire-fighters:

Wear self-contained breathing apparatus. Use water spray. Cool tank/container with water spray. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated.

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## 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions:

Wear PVC overalls, chemical resistant gloves, facemask or goggles.

#### Environmental precautions:

Contain Spills. Do not discharge into drains, waterways, or the environment.

#### Methods for cleaning up:

Shovel or sweep up. DO NOT flush with water. Place material in a clean, dry container and cover for disposal. Wash contaminated areas with water and detergent. Prevent liquid from entering sewers, waterways or low areas. Soak up with sawdust, sand or other absorbent material. Shovel or sweep up. Never return to container for reuse. (See section 13 for disposal instructions.)

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## 7. HANDLING AND STORAGE

#### Handling:

Avoid skin and eye contact. Avoid inhaling the vapour, or spray mist. Wash thoroughly after handling. Wash clothing

<b>Storage:</b>	after use. Store in the closed, original container in a dry, well ventilated area, as cool as possible out of direct sunlight and under lock and key. Keep from contact with fertilisers, fungicides and seeds. Do not store with Classes 1,2,3,2,4 or 5 substances. Stores containing more than 100kg of this product, either alone or in aggregate with other hazardous substances are subject to requirement of an emergency management response plan, secondary containment and signage.
<b>Packaging materials:</b>	Plastic lined cardboard box.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace Exposure Guidelines

**Exposure standards:** None Established  
**Engineering measures**

**Exposure control measures:** Ventilation required in enclosed areas.  
**Personal Protective Equipment**

**Detail specifications for equipment:** Avoid breathing spray mist or dust. Use respiratory equipment suitable for herbicide dust if exposure may exceed AEL value (AEL: 2 mg/m<sup>3</sup> (8 and 12 hr TWA). Avoid contact with eyes and skin. Wear protective goggles, rubber gloves, boots and overalls during handling and mixing.

**Respiratory system:** Respiratory protection is not required if good ventilation is maintained.

**Skin and body:** Wear long sleeved shirt, long pants.

**Hands:** Use gloves chemically resistant (eg: nitrile or neoprene) when prolonged or frequently repeated contact could occur.

**Eyes:** Use safety glasses if exposure possible.

**General hygiene:** When handling, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State: Colour, Odour.</b>	Solid, white to tan
<b>pH:</b>	7.3
<b>Freezing/melting point:</b>	N/A
<b>Auto-ignition Temp</b>	320°C
<b>Flashpoint:</b>	Not flammable
<b>Explosion properties:</b>	Not Explosive.
<b>Oxidation properties:</b>	Not an Oxidizing Agent

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## 10. STABILITY AND REACTIVITY

**Stability:** Stable at normal temperatures and storage conditions Limits

Flammable properties	in Air, % by volume: LEL 0.12 g/L
Fire/Explosion Hazard	Dust forms explosive mixture with air
<b>Conditions to avoid:</b>	Excess heat
<b>Materials to avoid:</b>	Oxidizing agents, acids and alkali.
<b>Hazardous decomposition Products:</b>	Decomposition will not occur.
<b>Hazardous polymerization:</b>	Polymerisation will not occur.
<b>Specific Data:</b>	
<b>Hazardous reactions :</b>	None expected

## 11. TOXICOLOGICAL INFORMATION

### Acute Effects

<b>Oral :</b>	Slightly toxic by ingestion
<b>Inhalation:</b>	None established for formulated product.
<b>Skin irritation :</b>	Slightly to moderately toxic by contact. Tests indicate mild to no skin irritation, and is not a skin sensitiser
<b>Eye irritation:</b>	Produced mild to no conjunctival irritation. Eyes were normal within 4 days.

### Chronic toxicity

<b>Linuron</b>	None established for formulated product. In rats fed Linuron at 0, 50, 125 and 625 ppm for two years, a statistically significant increase in benign testicular interstitial cell adenomas was noted in mid and high dose males; in mice fed Linuron at 0, 50, 150, and 1,500 ppm for two years, a statistically significant increase in benign hepatocellular adenomas was noted in high dose females only. No increase in malignant tumours was seen in either species. Rats were fed at 0, 5, 125 and 625 ppm Linuron in the diet. Linuron was not embryotoxic or teratogenic at any level. No effects on reproduction were seen in a 3-generation rat reproduction study at 125 ppm.
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### Mutagenicity:

Negative results were obtained in the following assays:  
 Rec-assay using two strains of *Bacillus subtili*.  
 Reverse mutation tests with *S. typhimurium* (Ames Test).  
 Host mediated assay using *S. typhimurium*.  
 Point mutation test in Chinese Hamster ovaries (CHO).  
 DNA damage and repair with rat hepatocytes in vitro.  
 In vivo cytogenetic with bone marrow cells.  
 None of the components in this material is listed by IARC, NTP OSHA, or ACGIH as a carcinogen.

### Toxicity Data

<b>Linuron</b>	None established for formulated product. Acute Oral LD50 (rat) 4,833 mg/kg (male); 4,060 mg/kg (female) Acute Dermal LD50 (rabbit) > 2,000 mg/kg Inhalation LC50 (rats) > 6.15mg/L air.
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## 12. ECOLOGICAL INFORMATION

### Linuron

<b>Fish</b>	LC50 (96hr) rainbow trout and bluegill sunfish 16 mg/L Channel catfish 1.2g/L Daphnia EC50 (48hr) 0.1-0.15 mg/L Algae EC50 (120hr) 0.0137 mg/L (9.1A)
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Very toxic to aquatic organisms. Avoid contamination of any water supply with chemical or empty container.

Herbicidal, soil DT50 38-67 days.

Log kow 3.2 (9.2A)

Bobwhite quail LD50 940mg/kg.

Dietary LC50 (8days)

mallard ducks 3,083mg/kg, > 5,000mg/kg for pheasants and Japanese quail. (9.3C)

Worms LC50 > 1,000mg/kg soil.

## Birds

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### 13. DISPOSAL CONSIDERATIONS

#### Methods of disposal :

Ensure bag is completely empty and dispose of at an approved landfill. If local regulations and wind direction permit, burn. Dispose of this product only by using in accordance with label directions. Dispose of solid contaminated material/or contaminated soil in an approved landfill. Disposal must be in accordance with applicable local regulations.

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### 14. TRANSPORT INFORMATION - International transport regulations

<b>UN number:</b>	<b>3077</b>
<b>Class or Division:</b>	<b>9</b>
<b>Packing Group:</b>	<b>III</b>
<b>Marine Pollutant:</b>	<b>YES</b>
<b>Proper shipping name :</b>	<b>Environmentally hazardous substance, Solid, N.O.S. Linuron</b>

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### 15. REGULATORY INFORMATION

<b>ACVM Registered Number:</b>	<b>P000565</b>
<b>HSNO Approval Code:</b>	<b>HSR000229</b>

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### 16. OTHER INFORMATION

<b>Additional information:</b>	<b>Original Issue Date:</b> 27 September 2010
	<b>Revision Date:</b> N/A
	<b>Replaces:</b> N/A

#### **Disclaimer EXCLUSION OF LIABILITY: PLEASE READ**

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