

SAFETY DATA SHEET

**Linuron DF®**

Version 1.0

Revision Date 28.05.2007

Ref. Linuron DF

This SDS adheres to the standards and regulatory requirements of Australia and may not meet the regulatory requirements of other countries.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product information**

Product name : Linuron DF®

Use of the Substance/Preparation : herbicide

Company : Du Pont (Australia) Limited
168 Walker Street
North Sydney NSW 2060

Telephone : (02) 9923 6111
Telefax : (02) 9923 6011
Emergency telephone number: (02) 9963 1301 (Transport Emergency)
(24 hr Medical Emergency Hotline: 1800 674 415)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	EC-No.	Classification	Concentration [%]
Linuron	330-55-2	206-356-5	Repr.Cat.2; R61 Repr.Cat.3; R62 Carc.Cat.3; R40 Xn; R22 -R48/22 N; R50 -R53	50
Alkylnaphthalene sulphonic acid, formaldehyde and lignosulfonic acid condensate, sodium salt		Polymer	Xi; R36/38	8
Sodium alkylnaphthalenesulfonate		Polymer	Xi; R36	1,4

For the full text of the R phrases mentioned in this Section, see Section 16.

3. HAZARDS IDENTIFICATION

May cause harm to the unborn child.
Also harmful if swallowed.
Also harmful: danger of serious damage to health by prolonged exposure if swallowed.
Limited evidence of a carcinogenic effect.
Possible risk of impaired fertility.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

General advice : Never give anything by mouth to an unconscious person. If breathing is irregular or stopped, administer artificial respiration.

Inhalation : Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician.

Skin contact : Wash off immediately with soap and plenty of water. Wash contaminated clothing before reuse.

**Linuron DF**

Version 1.0

Revision Date 28/05/2007

Ref. Linuron DF

- Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
- Ingestion : Drink 1 or 2 glasses of water. Induce vomiting, but only if victim is fully conscious. Call a physician or Poison Control Centre immediately.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : water spray, dry chemical, foam, carbon dioxide (CO₂),
- Extinguishing media which must not be used for safety reasons : high volume water jet, (contamination risk),
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.
- Further information : (on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Wear personal protective equipment.
- Environmental precautions : Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.
- Methods for cleaning up : Clean up promptly by scoop or vacuum. Use approved industrial vacuum cleaner for removal. Shovel into suitable container for disposal.

7. HANDLING AND STORAGE**Handling**

- Advice on safe handling : Provide appropriate exhaust ventilation at places where dust is formed. Wear personal protective equipment.
- Advice on protection against fire and explosion : Keep away from heat and sources of ignition.

Storage

- Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from food, drink and animal feeding stuffs. Keep out of reach of children.
- Advice on common storage : No materials to be especially mentioned.
- Other data : Stable under recommended storage conditions.

**Linuron DF**

Version 1.0

Revision Date 28/05/07

Ref. Linuron DF

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Engineering measures**

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

- Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.
Half mask with a particle filter P2.
- Hand protection : Material: nitrile rubber
Glove thickness: 0,4 - 0,7 mm
Wearing time: 480 min
Do not wear cotton or leather gloves., Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
- Eye protection : safety glasses
- Skin and body protection : lightweight protective clothing
- Hygiene measures : Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.
- Protective measures : All chemical protective clothing should be visually inspected prior to use. Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : solid, granular,
- Colour : grey,
- Odour : slight,
- Flash point : not applicable
- Bulk density : 608 kg/m³
- Water solubility : dispersible

10. STABILITY AND REACTIVITY

- Hazardous decomposition products : Carbon oxides, nitrogen oxides (NO_x)
- Hazardous reactions : Dust may form explosive mixture in air.

**Linuron DF**

Version 1.0

Revision Date 28.05.07

Ref. Linuron DF

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	LD50/rat male: 4 833 mg/kg LD50/rat female: 4 060 mg/kg
Acute inhalation toxicity	:	no data available
Acute dermal toxicity	:	LD50/rabbit : > 2 000 mg/kg
Skin irritation	:	No skin irritation
Eye irritation	:	No eye irritation
Sensitization	:	Did not cause sensitization on laboratory animals.
Carcinogenicity assessment	:	Carcinogenic Category 3
Toxicity to reproduction assessment	:	Toxic to Reproduction Category 2 Toxic to Reproduction Category 3

12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish	:	LC50/96 h/Oncorhynchus mykiss (rainbow trout): 3,3 mg/l active ingredient LC50/96 h/Bluegill sunfish: 9,6 mg/l active ingredient
Toxicity to algae	:	EC50/72 h/Algae: 0,028 mg/l active ingredient
Aquatic toxicity	:	EC50/48 h/Daphnia: 0,12 mg/l active ingredient

13. DISPOSAL CONSIDERATIONS

Product	:	In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).
Contaminated packaging	:	Do not re-use empty containers.



Linuron DF

Version 1.0

Revision Date 28.05.07

Ref. Linuron DF

14. TRANSPORT INFORMATION

ADR

Class: 9
 Packaging group: III
 Classification Code: M7
 HI No.: 90
 UN-No: 3077
 Labelling No.: 9
 Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Linuron)

IATA_C

Class: 9
 Packaging group: III
 UN-No: 3077
 Labelling No.: 9MI
 Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Linuron)

IMDG

Class: 9
 Packaging group: III
 UN-No: 3077
 Labelling No.: 9
 Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Linuron)

Marine pollutant: Marine pollutant.

15. REGULATORY INFORMATION

Labelling

Symbol(s) : T Toxic
 N Dangerous for the environment

Hazardous components: Linuron

R-phrase(s) : R61 May cause harm to the unborn child.
 R22 Also harmful if swallowed.
 R48/22 Also harmful: danger of serious damage to health by prolonged exposure if swallowed.
 R40 Limited evidence of a carcinogenic effect.
 R62 Possible risk of impaired fertility.
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s) : S 2 Keep out of reach of children.
 S13 Keep away from food, drink and animal feeding stuffs.
 S20/21 When using do not eat, drink or smoke.
 S22 Do not breathe dust.
 S36/37 Wear suitable protective clothing and gloves.
 S46 If swallowed, seek medical advice immediately and show this

**Linuron DF**

Version 1.0

Revision Date 28.05.07

Ref. Linuron DF

S53	container or label.
S35	Avoid exposure - obtain special instructions before use. This material and its container must be disposed of in a safe way.
S57	Use appropriate container to avoid environmental contamination.

Exceptional labelling of special preparations : To avoid risks to man and the environment, comply with the instructions for use.

16. OTHER INFORMATION**Text of R phrases mentioned in Section 2**

R22	Harmful if swallowed.
R36	Irritating to eyes.
R36/38	Irritating to eyes and skin.
R40	Limited evidence of a carcinogenic effect.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50	Very toxic to aquatic organisms.
R53	May cause long-term adverse effects in the aquatic environment.
R61	May cause harm to the unborn child.
R62	Possible risk of impaired fertility.

National regulatory information SUSDP : Schedule 5

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.