



SAFETY DATA SHEET

according to EC directive 2001/58/EC

Arelon 500

Version 4 (UK)

Issue date 09/30/2005

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

Product information

Trade name : **Arelon 500**

Usage : Herbicide

Company : Nufarm UK Limited
Crabtree Manorway North
Belvedere
KENT DA17 6BQ
UK

Emergency telephone number : **+44 (0)20 8319 7222**

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Suspension concentrate (SC)
Isoproturon 500g/l.

Components	CAS-No.	EINECS-No. ELINCS-No.	Symbol(s):	R-phrases(s)	Concentration (w/w)
Isoproturon	34123-59-6	251-835-4	N, Xn	R40, R50/53	44.6 %
Ethandiol	107-21-1	203-473-3	Xn	R22	1% - 10%

3. HAZARDS IDENTIFICATION

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Limited evidence of a carcinogenic effect.

4. FIRST AID MEASURES

Eye contact : Rinse eyes and eye-lids thoroughly with plenty of water for at least 15 minutes(remove contact lenses if possible) If eye irritation persists, consult a specialist.

Skin contact : Remove and wash contaminated clothing before re-use. Wash off with soap and water. If symptoms persist, call a physician.

Inhalation : Move to fresh air. Administer oxygen or artificial respiration if needed. Obtain medical attention.

Ingestion : Do not induce vomiting. Rinse mouth. If swallowed, seek medical advice immediately and show this container or label.

Notes to physician

Treatment : Treat symptomatically.



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5. FIRE-FIGHTING MEASURES

- Specific hazards during fire fighting : In the event of fire (NO_x,CO_x) may be formed.
- Special protective equipment for fire-fighters : Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.
- Suitable extinguishing media : water spray, dry powder, sand, foam, carbon dioxide (CO₂)
- Extinguishing media which must not be used for safety reasons : high volume water jet
- Further information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment. (see Chapter 8)
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Sweep up and shovel into suitable containers for disposal.
- Additional advice : Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

Handling

- Safe handling advice : Wear personal protective equipment.

Storage

- Requirements for storage areas and containers : Store in original container. Keep tightly closed in a dry, cool and well-ventilated place.
- Advice on common storage : Keep away from food, drink and animal feeding stuffs. Keep out of reach of children.

Storage stability

- Storage temperature : < 30 °C
: > 0 °C



8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	occupation al exposure limits	Note
Isoproturon	34123-59-6		
Ethandiol	107-21-1	52 mg/m ³	

Personal protective equipment

- Respiratory protection : In the case of vapour formation use a respirator with filter model ABEK (according to DIN 3181, 1980).
- Hand protection : PVC or nitrile-rubber gloves
- Eye protection : safety glasses, or, goggles
- Skin and body protection : protective suit
- Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands and face before breaks and immediately after handling the product. When using, do not eat, drink or smoke.
- Protective measures : Keep working clothes separately. Avoid contact with the skin and the eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Form : liquid suspension
- Colour : off-white
- Odour : characteristic

Other data

- Boiling point/range : > 100 °C
- Flash point : > 100 °C
- Ignition temperature : The product is not flammable.
- Vapour pressure : 8.1E-6 Pa at 25 °C (Isoproturon)



Density : ca.1.1 g/cm³ at 20 °C
Water solubility : Dispersible
pH : 7.8
Partition coefficient (n-octanol/water) : log POW = 2.5 at 20 °C (Isoproturon)
Viscosity, dynamic : no data available

10. STABILITY AND REACTIVITY

Thermal decomposition : No decomposition if stored and applied as directed.
Conditions to avoid : none under normal use
Materials to avoid : strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 rat
Dose: > 2,000 mg/kg
Acute dermal toxicity : LD50 rat
Dose: > 4,000 mg/kg
Acute inhalation toxicity : LC50 rat
Exposure time: 4 h
Dose: > 1.34 mg/l
Skin irritation : Result: No skin irritation
Eye irritation : Result: No eye irritation
Sensitization : Result: Not sensitizing to skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects



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- Toxicity to birds : Non toxic for birds.
- Toxicity to fish : LC50
Dose: 309 - 556 mg/l
Testing period: 96 h
- Toxicity to daphnia : EC50 Daphnia
Dose: > 1,000 mg/l
Testing period: 24 h
- Toxicity to algae : EC50 Toxicity to algae
Dose: 0.1 mg/l
Exposure time: 72 h
Very toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

- Product : Dispose of product and packaging in accordance with The Green Code. (The Code of Practice for the safe use of Pesticides on Farms and Holdings.) A MAFF Publication.
- Contaminated packaging : Do not re-use empty containers. Dispose of as unused product.
- According to European Directive 2000/532/EC as amended :
Waste Key Number : 02 01 08 (agrochemical waste containing dangerous substances)

14. TRANSPORT INFORMATION

- UN-No : **3082**
- Description of the goods : UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.*(Isoproturon)

ADR/RID

- Class : 9
Packaging group : III

IMDG

- Class : 9
Packaging group : III
Marine pollutant : MP

IATA-DGR

- Class : 9
Packaging group : III



15. REGULATORY INFORMATION

Symbol(s):	: Xn N	Harmful Dangerous for the environment
R-phrase(s)	: R40 R50/53	Limited evidence of a carcinogenic effect. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S35 S36/37	This material and its container must be disposed of in a safe way. Wear suitable protective clothing and gloves.

16. OTHER INFORMATION

PRINT DATE : 30/09/2005

(Alterations made to all sections)

Full text of any R phrases referred to under heading 2:

- R40 - Limited evidence of a carcinogenic effect.
- R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R22 - Harmful if swallowed.

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