

**FREEWAY 12712 4X5L GB**Version 1 / GB
1020000017181/8
Revision Date: 25.04.2006
Print Date: 09.05.2007**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name FREEWAY 12712 4X5L GB
Product code (UVP) 05923522
Usage herbicide
Company Bayer Environmental Science
230 Cambridge Science Park
Milton Road
Cambridge
Cambridgeshire CB4 0WB
Great Britain

Telephone +44(0)1223 226500
Telefax +44(0)1223 426240
Emergency telephone number 0800-220876 (UK 24 hr)
+44(0)1603-242424 (Overseas 24 hr)

2. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

Suspension concentrate (=flowable concentrate)(SC)
Diuron 500 g/l SC

Hazardous components

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrases(s)	Concentration [%]
Diuron	330-54-1 206-354-4	Xn, N	R22, R40, R48/22, R50/53	42.40
Polyarylether sulfate, ammonium salt	119432-41-6	Xi	R36, R52/53	>= 1.00 - < 5.00
Ethenediol	107-21-1 203-473-3	Xn	R22	> 1.00 - < 5.00

3. HAZARDS IDENTIFICATION**Risk advice to man and the environment**

Limited evidence of a carcinogenic effect.
Harmful: danger of serious damage to health by prolonged exposure if swallowed.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES**Inhalation**

Move to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.

Skin contact

Take off contaminated clothing and shoes immediately. Wash off thoroughly with plenty of water and soap, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms



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persist, call a physician.

Eye contact

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion

Do not induce vomiting. If symptoms persist, call a physician. Rinse out mouth and give water in small sips to drink.

Notes to Physician

Symptoms

Systemic: The absorption of this product into the body may lead to the formation of methaemoglobine that, in sufficient concentration, causes cyanosis. If large amounts are ingested, the following symptoms may occur: dizziness, headache

Risks

Danger of formation of methaemoglobin.

Treatment

Local treatment:

Treat symptomatically.

Systemic treatment:

In the event of a mouthful or more being ingested, the following measures should be considered:

Monitoring of: cardiac, kidney and red blood cell count.

Observe specific parameters: methaemoglobinaemia and serum potassium.

If ingested, irrigate the stomach using activated charcoal in addition.

If methaemoglobin level is less than 20%, administer 100% oxygen. If methaemoglobin level is greater than 20% treat with 100% oxygen and slowly give 1% Methylene Blue/Toluidine Blue solution intravenously, 1-2 mg/kg body weight.

Contraindications: alcohol.

Recovery: spontaneous.

Give oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

water spray

foam

carbon dioxide (CO₂)

dry powder

Specific hazards during fire fighting

The product itself does not burn.

In the event of fire the following can be released:

carbon monoxide (CO)

carbon dioxide (CO₂)

nitrogen oxides (NO_x)

Sulphur oxides

hydrogen chloride (HCl)

Special protective equipment for fire-fighters

Use breathing apparatus.

Further information

Collect contaminated fire extinguishing water separately. This must not be discharged into



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drains.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal protective equipment.

Environmental Precautions

Do not discharge into the drains/surface water/groundwater.

If spillage enters drains leading to sewage works inform local water company immediately.

If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

Methods for Cleaning Up

Recover the product by pumping, suction or absorption using a dry and inert absorbent clay.

Take up with absorbent material (e.g. sand, diatomaceous earth or a proprietary absorbent material).

Pick up and fill the product into a tightly closed container.

When picked up, treat material as prescribed in Ch. 13. "Disposal considerations".

7. HANDLING AND STORAGE

Handling

Advice on safe handling

Smoking, eating and drinking should be prohibited in the application area.

Storage

Requirements for storage areas and containers

Keep containers tightly closed in a cool, well-ventilated place.

Protect against frost.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Suitable materials

High density polyethylene

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
Ethanediol (Particulate.)	107-21-1	10 mg/m ³ (TWA)	2005	EH40 WEL
Ethanediol (Vapor.)	107-21-1	52 mg/m ³ / 20 ppm (TWA)	2005	EH40 WEL
Ethanediol (Vapor.)	107-21-1	104 mg/m ³ / 40 ppm (STEL)	2005	EH40 WEL

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Ethanediol	107-21-1	52 mg/m ³ / 20 ppm (TWA)	05 2003	EU ELV
Ethanediol	107-21-1	104 mg/m ³ / 40 ppm (STEL)	05 2003	EU ELV

Personal protective equipment

Respiratory Protection	No personal respiratory protective equipment normally required. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
Hand Protection	Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.
Eye protection	Wear goggles conforming to EN166 (Field of Use 5 or equivalent).
Skin and body protection	Wear standard coverall and Type 6 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.
Hygiene measures	Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.
Protective measures	Avoid contact with skin and eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	liquid
Colour	white

Safety data

pH	6.5 - 8.5 at 1 %
Density	ca. 1.18 g/cm ³ at 20 °C

10. STABILITY AND REACTIVITY

Conditions to Avoid	Extremes of temperature and direct sunlight.
Materials to avoid	None.



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Hazardous Reactions No hazardous reactions when stored and handled according to prescribed instructions.
Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity LD50 (rat) > 2,000 mg/kg

Acute Inhalation Toxicity LC50 (rat) > 4.07 mg/l
Exposure time: 4 h

Acute Dermal Toxicity LD50 (rat) > 2,000 mg/kg

Skin Irritation No skin irritation. (rabbit)

Eye Irritation No eye irritation. (rabbit)

Sensitization Non-sensitizing. (guinea pig)

Assessment Carcinogenicity

A possible carcinogenic effect is indicated at high doses in animal studies on the active substance diuron.

Further information

Methaemoglobin formation demonstrated in animal studies.
Indication of a possible carcinogenic activity in animal tests.
severe effects after repeated or prolonged exposure

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to Fish LC50 (Rainbow trout (*Oncorhynchus mykiss*)) 5.6 mg/l
Exposure time: 96 h

Toxicity to daphnia EC50 (Daphnia) 12 mg/l
Exposure time: 48 h

Further information on ecology

Additional ecological information

The ecotoxic effect of the product has not been tested. The information on this is given on the basis of details in the literature.

The ecological data given are those of the active ingredient.

13. DISPOSAL CONSIDERATIONS

Product

In accordance with current regulations may be taken to waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority.

Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

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Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times.

Add washings to sprayer at time of filling.

Dispose of empty and cleaned packaging safely.

Large containers (> 25 l or > 25 kg) should not be rinsed or re-used for any other purpose.

Return large containers to supplier.

Follow advice on product label and/or leaflet.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION**ADR/RID/ADNR**

UN-No	3082
Labels	9
Packaging group	III
Hazard no.	90
Description of the goods	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIURON SOLUTION)

IMDG

UN-No	3082
Class	9
Packaging group	III
EmS	F-A , S-F
Marine pollutant	Marine pollutant
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIURON SOLUTION)

IATA

UN-No	3082
Class	9
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIURON SOLUTION)

UK 'Carriage' Regulations

UN-No	3082
Labels	9
Packaging group	III
Hazard no.	90
Emergency action code	3Z
Description of the goods	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIURON SOLUTION)

15. REGULATORY INFORMATION

This product has been classified in accordance with The Chemicals (Hazard Information and

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Packaging for Supply) Regulations 2002: CHIP 3 and any subsequent amendments.

Classification:

Hazard warning labelling compulsory

Hazardous components which must be listed on the label:

- Diuron

Symbol(s)

Xn	Harmful
N	Dangerous for the environment

R-phrases)

R40	Limited evidence of a carcinogenic effect.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases)

S35	This material and its container must be disposed of in a safe way.
S36/37	Wear suitable protective clothing and gloves.
S57	Use appropriate container to avoid environmental contamination.

Exceptional labelling

To avoid risks to man and the environment, comply with the instructions for use.

Further information

WHO-classification: II (Moderately hazardous)

16. OTHER INFORMATION**Further information**

Text of R phrases mentioned in Section 2:

R22	Harmful if swallowed.
R36	Irritating to eyes.
R40	Limited evidence of a carcinogenic effect.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The above information is intended to give general health and safety guidance on the storage and transport of the product.

It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.

The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.

No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.



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Changes since the last version are highlighted in the margin. This version replaces all previous versions.