

SAFETY DATA SHEET

HELMSMAN

2310 1.00 GB Current 08.12.2000

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Trade Name	HELMSMAN
Product (Specification) Code	2310
Aventis CropScience Product Code	None known.
Usage	Granule Herbicide
Appearance	Blue granules
Manufacturer/Supplier	Bayer Environmental Science
Address	Durkan House 214-224 High Street Waltham Cross Hertfordshire EN8 7DP
Phone Number	01992 784270
Fax Number	01992 784276
Emergency Phone Number	0800 220876 (24 hr UK) +44 1603 242424 (24 hr Overseas)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components in Product for EC

Component Name	CAS No	Conc. %w/w	R Phrases	Classification
1. Oxadiazon	19666-30-9	2.00	R50/53	N
2. Carbetamide	16118-49-3	1.00		
3. Diflufenican	83164-33-4	0.10	R52/53	N
4. 4-Hydroxy-4-methylpentan-2-one	123-42-2	5.00 < 25.00	R36	Xi
5. Magnesium silicate hydrate	63800-37-3	65.00 < 95.00		

3. HAZARDS IDENTIFICATION

Main Hazards	Irritating to eyes.
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4. FIRST-AID MEASURES

Eyes	Rinse immediately with clean water for at least 15 minutes and obtain medical aid.
Skin	Carefully remove contaminated clothing. Wash affected area with soap and water. Seek medical aid if at all worried.
Ingestion	Wash out mouth with water. Do not induce vomiting. Keep patient at rest and seek medical advice.
Inhalation	If inhaled, remove to fresh air and keep at rest. Obtain medical aid if at all worried.
Advice to Physicians	Brief Summary of Symptoms and Signs: Local Contamination: May cause eye irritation . Systemic Poisoning: No symptoms reported. Treatment: Local Contamination: Symptomatic after decontamination. Treat as documented above under 'First-Aid Measures'. Systemic Poisoning: Initial treatment should be symptomatic and supportive. There is no specific antidote. Further advice is available from; Bayer Environmental Science via the emergency telephone number above or from the nearest Poisons Unit.

5. FIRE-FIGHTING MEASURES

Extinguishing Media	Product is not combustible. If product is involved in a fire, use waterspray, foam, dry powder, carbon dioxide or sand.
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SAFETY DATA SHEET

HELMSMAN

2310 1.00 GB Current 08.12.2000

5. FIRE-FIGHTING MEASURES (continued)

Unsuitable Extinguishing Media	None.
Special Exposure Hazards	May give off toxic fumes if heated to decomposition.
Protective Equipment for Fire-Fighting	Do not breathe fumes. Wear self contained breathing apparatus.
Fire Fighting Guidance	If possible and without risk, remove intact containers from exposure to fire. Otherwise, spray unopened containers with water to keep cool. Whenever possible, contain fire-fighting water by bunding area with sand or earth.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with spilled material or contaminated surfaces. If ordinary clothing becomes contaminated remove it immediately. When dealing with the spillage do not eat, drink or smoke and wear personal protective clothing as detailed in Section 8.
Environmental Precautions	Keep people and animals away. Prevent entry into drains, sewers and watercourses. In the UK if spillage enters drains leading to sewage works inform local water company plc immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060). Overseas, inform the appropriate authority immediately.
Spillages	Sweep or preferably vacuum up spillage using equipment fitted with high efficiency final filter. Avoid creating a dust. Transfer collected material to heavy duty plastic drums and keep safe for disposal.
Note	Check also for any local site procedures in force.

7. HANDLING AND STORAGE

Handling	No specific precautions required when handling unopened containers; follow any relevant manual handling guidance. Refer to Section 8 if exposure to product is possible. Wash thoroughly with soap and water after handling and before eating, drinking or smoking.
Storage	Store in original packs/containers in a dry secure area designated for pesticides with access for authorised staff only. Store away from seeds, fertilizers and animal feedstuffs.
Technical Storage Measures	No special measures required.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards	
1. Product	None assigned.
2. 4-Hydroxy-4-methylpentan-2-one	UK EH40: OES 50ppm (241mg/m ³) 8h TWA. UK EH40: OES 75ppm (362mg/m ³) 15min STEL.
3. Magnesium silicate hydrate	Dust, total inhalable: UK EH40: OES 10mg/m ³ 8h TWA. Dust, respirable: UK EH40: OES 4mg/m ³ 8h TWA.
Engineering Control Measures	Refer to any applicable COSHH assessments. Engineering controls should be used where practicable in preference to personal protection.
Respiratory Protection	Wear approved dust mask or full-face self-contained breathing apparatus, depending upon exposure potential.
Hand Protection	Wear chemical resistant PVC or nitrile gloves.
Eye Protection	Wear safety goggles with unperforated side shield or goggles (conforming to BS EN 166 or BS 2092 for older goggles).
Other	Wear PVC or chemical resistant disposable overalls and PVC boots.
Other Information	If feasible, decontaminate protective clothing before removal. Where decontamination is not feasible (before or after removal) dispose of as contaminated waste.

9. PHYSICAL AND CHEMICAL PROPERTIES

SAFETY DATA SHEET

HELMSMAN

2310 1.00 GB Current 08.12.2000

9. PHYSICAL AND CHEMICAL PROPERTIES (continued)

Physical State	Granules.
Colour	Blue.
Odour	No data.
pH	Not applicable
Boiling Range/Point (deg C)	Not applicable
Melting Point/Freezing Point (deg C)	Not determined.
Flash Point (deg C)	Not applicable
Explosion Limits (%)	Not applicable
Solubility in Water	Insoluble.
Vapour Pressure	Not applicable
Density (g/ml)	0.71. (normal)
Flammability	Not combustible
Auto-flammability (deg C)	Not applicable
Explosive Properties	None.
Oxidising Properties	None.
Vapour Density (Air = 1)	Not applicable
Dust Explosion Data	Not applicable
Summary/Other Data	A non-combustible solid

10. STABILITY AND REACTIVITY

Stability	Stable at ambient conditions.
Conditions to Avoid	None in particular.
Materials to Avoid	None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Inhalation	Low toxicity.
Skin and Eye Contact	Low toxicity. Irritating to rabbit eyes. Not irritating to rabbit skin.
Ingestion	Low toxicity.
Carcinogenicity	No data.
Genotoxicity	Oxadiazon; No data. Carbetamide; No data. Diflufenican; Not mutagenic in the Ames assay.
Reproductive Toxicity	No data.

12. ECOLOGICAL INFORMATION

Mobility	Oxadiazon; Will not leach due to high soil adsorption. Carbetamide; No data. Diflufenican; No data.
Persistence/Degradability	Oxadiazon; Soil DT50 3 to 6 months. Water DT50 38 days (pH 9.0 @ 25 deg. C). Carbetamide; Soil DT50 about 1 month. Diflufenican; Soil DT50 15 to 30 weeks. Stable to hydrolysis (25 deg. C) at pH 5, pH 7 and pH 9. Fairly stable to photolysis.

SAFETY DATA SHEET

HELMSMAN

2310 1.00 GB Current 08.12.2000

12. ECOLOGICAL INFORMATION (continued)

Bio-accumulation	Oxadiazon; Log P = 4.91. Carbetamide; No data. Diflufenican; Log P = 4.9.
Aquatic Toxicity	Oxadiazon; 96 hr LC50 rainbow trout 1.2 mg/l, bluegill sunfish 1.2 mg/l, 48 hr EC50 daphnia > 2.4 mg/l, EC50 algae 6 to 3000 microgram/l . Carbetamide; 96 hr LC50 rainbow trout 354 mg/l, 48 hr EC50 daphnia 36.5 mg/l, 72 hr LC50 algae 200 mg/l. Diflufenican; 96 hr LC50 rainbow trout 56 to 100 mg/l, carp 105 mg/l, 48 hr EC50 daphnia > 10 mg/l, 96 hr EC50 algae > 10 mg/l.
Other Toxicity	Oxadiazon; Toxic to the following species; bees . Low toxicity to the following species; earthworms . Carbetamide; Acute oral LD50 bobwhite quail > 2000 mg/kg. Low toxicity to the following species; bees and earthworms . Diflufenican; Acute oral LD50 mallard duck > 2150 mg/kg, quail > 4000 mg/kg. Low toxicity to the following species; bees and earthworms .


13. DISPOSAL CONSIDERATIONS

Product Disposal	Disposal of product would usually be by incineration in an appropriately licensed commercial incinerator. Small quantities may be accepted in licensed landfill sites. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK). In the UK disposal arrangements should be in accordance with the Duty of Care Regulations and, where applicable, with the Special Waste Regulations.
Container Disposal	Lightly contaminated packaging may be acceptable for landfill, otherwise incineration will be required. See above for advice.

14. TRANSPORT INFORMATION

UN Number	Not dangerous for transport
UN Proper Shipping Name	Not dangerous for transport
UN Class	Not dangerous for transport
UN Packaging Group	Not dangerous for transport
ADR/RID - Description	Not dangerous for transport
CDG(CPL) - Description	Not dangerous for transport
IMDG - Proper Shipping Name	Not dangerous for transport
IMDG - Ems Number	None.
IMDG - MFAG Table Number	None.
ICAO - Proper Shipping Name	Not dangerous for transport

15. REGULATORY INFORMATION

Risk symbol	 Irritant
Hazard Classification	Xi - Irritant
Designated Name	Helmsman (contains oxadiazon 2.0 % , carbetamide 1.0 % and diflufenican 0.1 %)
R phrases	36-Irritating to eyes.
S phrases	22-Do not breathe dust. 26-In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 36-Wear suitable protective clothing. 45-In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SAFETY DATA SHEET

HELMSMAN

2310 1.00 GB Current 08.12.2000

15. REGULATORY INFORMATION (continued)

**Control of Pesticides Regulations 1986:
Precautions**

WEAR SUITABLE PROTECTIVE GLOVES when handling or applying the granules.
DO NOT BREATHE DUST.
WASH HANDS AND EXPOSED SKIN before meals and after work.
EXTREMELY DANGEROUS TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface waters or ditches with chemical or used container.
KEEP IN ORIGINAL CONTAINER, tightly closed in a safe place.
EMPTY CONTAINER COMPLETELY and dispose of safely.
WHEN USING DO NOT EAT, DRINK OR SMOKE.
KEEP OUT OF REACH OF CHILDREN.
KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.
NOT TO BE USED ON FOOD CROPS.

16. OTHER INFORMATION

MSDS first issued

8 December 2000

MSDS data revised

Footnote

This Safety Data Sheet was prepared in compliance with Commission Directive 93/112/EC, 67/548/EEC and 88/379/EEC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.

Disclaimer

The above information is intended to give general health and safety guidance on the storage and transport of the substance or product to which it relates. It is not intended to apply to the use of the substance or product for which purposes the substance or product label and any appropriate technical usage literature available should be consulted and any relevant licences, 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.
