



Bayer Environmental Science

PISTOL 4X5L GB

Version 1

Revision Date 05.09.2003

GB

102000001746

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

Trade name : PISTOL 4X5L GB

Product code : TADS13723

Product code : 31629C

Specification : 12969

Usage : herbicide

Company : Bayer Environmental Science
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+44(0)1223-870312

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

Suspension concentrate (=flowable concentrate)(SC), contains:
Diflufenican/Glyphosate 40:250 g/l

Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrases(s)	Concentration [%]
Diflufenican	83164-33-4		R52/53	3.50
Glyphosate isopropylamine salt	38641-94-0			45.00
1,2 Propanediol	57-55-6			> 1.00 - < 5.00

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

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

General advice : Remove contaminated, soaked clothing immediately and dispose of safely.

Inhalation : Move the patient to fresh air and keep at rest. If symptoms



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- persist, call a physician.
- Skin contact : Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.
- Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Ingestion : Do not induce vomiting. Wash out mouth with water. Keep at rest. Obtain medical attention.

Notes to physician

- Symptoms : Local:, To date no symptoms are known.
Symptoms : Systemic:, To date no symptoms are known.
Risks : This product is NOT a cholinesterase inhibitor.
- Treatment : Local treatment:
Initial treatment should be symptomatic and supportive.
- Treatment : Systemic treatment:
Initial treatment should be symptomatic and supportive.
Contraindication: atropine
Contraindications: oximes
There is no antidote.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : water spray
alcohol-resistant foam
dry chemical
carbon dioxide (CO2)
- Extinguishing media which must not be used for safety reasons : Product itself is non-combustible; fire extinguishing measures to suit surroundings.
- Specific hazards during fire fighting : In case of fire the evolution of dangerous gases is possible.
- Special protective equipment for fire-fighters : In the event of fire and/or explosion do not breathe fumes. Wear self contained breathing apparatus for fire fighting if necessary.
- Further information : Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.
Whenever possible, contain fire-fighting water by bunding area with sand or earth.



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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke.
- Environmental precautions : Keep people and animals away. 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 : Take up with absorbent material (e.g. sand, earth or a proprietary absorbent material). Transfer collected material to heavy duty plastic drums and keep safe for disposal. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations
- Additional advice : Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13. Check also for any local site procedures.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Provide good ventilation of working area (local exhaust ventilation if necessary).
- Advice on protection against fire and explosion : No special precautions required.

Storage

- Requirements for storage areas and containers : Keep containers tightly closed in a cool, well-ventilated place. Store in a place accessible by authorized persons only.
- Further information on storage conditions : Keep away from direct sunlight. Protect against frost.
- Storage temperature : 0 - 30 °C
- Suitable materials : Keep in original packaging, tightly closed.



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to COSHH assessment (Control of substances Hazardous to Health Regulations 1999 as amended). Engineering controls should be used in preference to personal protective equipment wherever practicable.

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
1,2 Propanediol	57-55-6	10 mg/m ³ (TWA)	2001	EH40 OES
		474 mg/m ³ (TWA)	2001	EH40 OES

Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
- Hand protection : Chemical resistant gloves
PVC disposable gloves
nitrile rubber
- Eye protection : Chemical resistant goggles must be worn.
- Skin and body protection : Light protective clothing, PVC
PVC boots
- Hygiene measures : When using, do not eat, drink or smoke.
Remove soaked clothing immediately.
Remove soiled clothing immediately.
Clean hands and face at work intervals and after work.
Work in an adequately ventilated room.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

- Form : Liquid
Colour : white opaque

Safety data

- Density : ca. 1.17 g/cm³ at 20 °C
- Water solubility : Note: Miscible
- Partition coefficient (n-octanol/water) : log Pow: 4.2
Note: The value mentioned relates to the active ingredient diflufenican.
- Partition coefficient (n-octanol/water) : log Pow: -5.4
Note: The value mentioned relates to the active ingredient glyphosate-isopropylamine salt.



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Viscosity, dynamic : 30 - 60 mPa.s
Other information : The product is not combustible.

10. STABILITY AND REACTIVITY

Conditions to avoid : Note: Extremes of temperature and direct sunlight.
Materials to avoid : None
Hazardous reactions : No hazardous reactions when stored and handled according to prescribed instructions.
Note: Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 (rat) > 2,000 mg/kg
Acute dermal toxicity : LD50 (rat) > 2,000 mg/kg
Skin irritation : rabbit
Result: slight irritant effect - does not require labelling
Eye irritation : rabbit
Result: No eye irritation
Sensitization : guinea pig
Result: non-sensitizing
Method: OECD Test Guideline 406, Buehler test

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Bioaccumulation : Rainbow trout (*Oncorhynchus mykiss*)
Bioconcentration factor (BCF): 1,596
Test substance: The value mentioned relates to the active ingredient diflufenican.

Ecotoxicity effects

Toxicity to fish : LC50: > 109 µg/l
Rainbow trout
Exposure time: 96 h
Test substance: The value mentioned relates to the active ingredient diflufenican.
Remarks: The low solubility of the product does not allow to reach toxic concentrations for fishes.
Toxicity to fish : LC50: > 98.5 µg/l

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		<p>Cyprinus carpio (Carp) Exposure time: 96 h Test substance: The value mentioned relates to the active ingredient diflufenican. Remarks: The low solubility of the product does not allow to reach toxic concentrations for fishes.</p>
Toxicity to fish	:	<p>LC50: 86 mg/l Rainbow trout (<i>Oncorhynchus mykiss</i>) Exposure time: 96 h Test substance: The value mentioned relates to the active ingredient glyphosate-isopropylamine salt.</p>
Toxicity to daphnia	:	<p>EC50: > 240 µg/l Water flea (<i>Daphnia magna</i>) Exposure time: 48 h Test substance: The value mentioned relates to the active ingredient diflufenican. Remarks: Did not exert any acute toxicity to daphnia even at concentrations up to limit of aqueous solubility.</p>
Toxicity to algae	:	<p>EC50: 0.018 mg/l <i>Scenedesmus subspicatus</i> Exposure time: 72 h</p>
Toxicity to other organisms	:	<p>LD50: > 4,000 mg/kg Mallard duck Test substance: The value mentioned relates to the active ingredient diflufenican.</p>
Toxicity to other organisms	:	<p>LD50: > 2,150 mg/kg Bobwhite quail Test substance: The value mentioned relates to the active ingredient diflufenican.</p>

13. DISPOSAL CONSIDERATIONS

Product	:	<p>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 Can be landfilled or incinerated, when in compliance with local regulations. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).</p>
Contaminated packaging	:	<p>Packaging that cannot be cleaned should be disposed of as product waste. Empty containers can be landfilled after cleaning, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.</p>
Waste key for the unused product	:	<p>020108 agrochemical waste containing dangerous substances</p>



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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. (DIFLUFENICAN SOLUTION)
IMDG	: UN-No	3082
	Class	9
	Packaging group	III
	EmS	NONE
	Marine pollutant	P
	Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIFLUFENICAN SOLUTION)
IATA	: UN-No	3082
	Class	9
	Packaging group	III
	Description of the goods	Environmentally hazardous substance, liquid, n.o.s. (DIFLUFENICAN SOLUTION)
CDG CPL	: UN-No	3082
	Class	9
	Packaging group	III
	Hazard identification number	90
	Emergency action code	2X
	Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIFLUFENICAN)

15. REGULATORY INFORMATION

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP 3.

Hazardous components which must be listed on the label:

- Diflufenican
- Glyphosate isopropylamine salt

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

Further information : WHO-classification: II (Moderately hazardous)



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Symbol(s):	: N	Dangerous for the environment
R-phrase(s)	: R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S35 S57	This material and its container must be disposed of in a safe way. Use appropriate containment to avoid environmental contamination.

16. OTHER INFORMATION

Further information

Text of R phrases mentioned in Section 2:

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.

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