

**JAVELIN**

Version 1  
Revision Date 15.08.2003

GB  
102000005801

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

Trade name : JAVELIN  
 Product code : AE F016410 42 SC51 A1  
 Product code : 04072A  
 Specification : 12465  
 Usage : herbicide  
 Company : Bayer CropScience Limited  
 Hauxton  
 Cambridge  
 Cambridgeshire CB2 5HU  
 United Kingdom  
 Telephone : +44(0)1223 870312  
 Telefax : +44(0)1223 872142  
 Emergency telephone number : 0800-220876 ( UK only )  
 +44(0)1223-870312

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

Suspension concentrate (=flowable concentrate)(SC)  
 Isoproturon/Diflufenican 500:62.5 g/l SC

**Hazardous components**

Chemical Name	CAS-No.	Symbol(s):	R-phrase(s)	Concentration [%]
Isoproturon	34123-59-6	Xn, N	R22 R40 R50/53	45.50
Diflufenican	83164-33-4		R52/53	5.60
Ethanediol	107-21-1	Xn	R22	> 1.00 - < 5.00

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

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

**4. FIRST AID MEASURES**

Skin contact : Take off all contaminated clothing immediately. Wash off with

**JAVELIN**

Version 1  
Revision Date 15.08.2003

GB  
102000005801

soap and water. If symptoms persist, call a physician.

- Eye contact : Rinse with plenty of water. If eye irritation persists, consult a specialist.
- Ingestion : Do not induce vomiting. Rinse mouth thoroughly with water. Give small amounts of water to drink. Keep at rest. Obtain medical attention.

**Notes to physician**

- Symptoms : Local:, none, Systemic:, The absorption of this product into the body may lead to the formation of methaemoglobine that, in sufficient concentration, causes cyanosis.
- Risks : Danger of formation of methaemoglobin. More severe effects if alcohol is consumed.
- Treatment : Treat symptomatically.  
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.  
ECG - monitoring (Electrocardiogram)  
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  
Oxygen, if needed.

**5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : water spray  
carbon dioxide (CO<sub>2</sub>)  
dry powder  
alcohol-resistant foam
- Specific hazards during fire fighting : In the event of fire the following can be released:  
carbon monoxide (CO)  
nitrogen oxides (NO<sub>x</sub>)  
hydrogen fluoride
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.  
Wear full protective suit.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.



**JAVELIN**

Version 1  
Revision Date 15.08.2003

GB  
102000005801

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions : Use personal protective equipment.  
Evacuate personnel to safe areas.
- 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 : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Take up mechanically and collect in suitable container for disposal.
- Additional advice : Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

**7. HANDLING AND STORAGE**

**Handling**

- Advice on safe handling : Provide exhaust ventilation.
- Advice on protection against fire and explosion : The product neither sensitive to impacts nor to rub effects and therefore not explosive.

**Storage**

- Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place.
- Further information on storage conditions : The storage temperature should normally be below 30 °C and maximum at 50 °C.  
Keep away from direct sunlight.  
Protect against frost. Freezing makes the product unusable.
- Advice on common storage : Keep away from food, drink and animal feedingstuffs.
- Storage period : 24 Months
- Storage temperature : 20 - 30 °C
- Suitable materials : High density polyethylene

**JAVELIN**

Version 1  
Revision Date 15.08.2003

GB  
102000005801

**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
Ethanediol	107-21-1	10 mg/m <sup>3</sup> (TWA)	2001	EH40 OES
		60 mg/m <sup>3</sup> (TWA)	2001	EH40 OES
		125 mg/m <sup>3</sup> (STEL)	2001	EH40 OES
		52 mg/m <sup>3</sup> (TWA)	05 2001	EU ELV
		104 mg/m <sup>3</sup> (STEL)	05 2001	EU ELV

**Engineering measures**

See chapter 7; no measures exceeding those mentioned are necessary.

**Personal protective equipment**

- Respiratory protection : No personal respiratory protective equipment normally required.
- Hand protection : PVC disposable gloves  
nitrile rubber
- Eye protection : safety glasses
- Skin and body protection : Light protective clothing, PVC
- Hygiene measures : When using, do not eat, drink or smoke.  
Wash hands before breaks and at the end of workday.
- Protective measures : Avoid contact with skin and eyes.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

- Form : liquid
- Colour : white opaque

**Safety data**

- pH : 6 - 8  
Note: Determined as a 1% suspension in distilled water.
- Flash point : Note: Not relevant; aqueous solution
- Autoignition temperature : 490 °C
- Density : 1.10 g/cm<sup>3</sup>



**JAVELIN**

Version 1  
Revision Date 15.08.2003

GB  
102000005801

Water solubility : Note: dispersible  
Impact Sensitivity : Not impact-sensitive  
10 kg at 0.4 m  
Explosivity : Note: Not explosive

**10. STABILITY AND REACTIVITY**

Hazardous reactions : Note: Stable under recommended storage conditions.

**11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : LD50 (rat) > 2,000 mg/kg  
Test substance: Test conducted with a similar formulation.  
Acute dermal toxicity : LD50 (rat) > 2,000 mg/kg  
Test substance: Test conducted with a similar formulation.  
Skin irritation : rabbit  
Result: non-irritant  
Test substance: Test conducted with a similar formulation.  
Eye irritation : rabbit  
Result: non-irritant  
Test substance: Test conducted with a similar formulation.  
Sensitization : guinea pig  
Result: non-sensitizing  
Assessment carcinogenicity : A possible carcinogenic effect at high doses in animal studies on the active substance isoproturon is indicated.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity effects**

Toxicity to fish : LC50: 56.6 mg/l  
Rainbow trout (*Oncorhynchus mykiss*)  
Exposure time: 96 h  
Toxicity to daphnia : EC50: 378 mg/l  
Water flea (*Daphnia magna*)  
Exposure time: 48 h  
Toxicity to algae : EC50: 22.7 µg/l  
*Selenastrum capricornutum*  
Exposure time: 72 h

**JAVELIN**

Version 1  
Revision Date 15.08.2003

GB  
102000005801

**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  
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).
- Contaminated packaging : Packaging that cannot be cleaned should be disposed of as product waste.  
Empty containers can be landfilled, when in accordance with the local regulations.
- 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. ( ISOPROTURON MIXTURE )
- 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. ( ISOPROTURON MIXTURE )
- IATA** : UN-No **3082**  
Class 9  
Packaging group III  
Description of the goods Environmentally hazardous substance, liquid, n.o.s. ( ISOPROTURON MIXTURE )

**JAVELIN**

Version 1  
Revision Date 15.08.2003

GB  
102000005801

<b>CDG CPL</b> : UN-No	<b>3082</b>
Class	9
Packaging group	III
Hazard identification number	90
Emergency action code	2X
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOPROTURON)

**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:

- Isoproturon
- Diflufenican

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

**16. OTHER INFORMATION****Further information**

Text of R phrases mentioned in Section 2:

R22	Harmful if swallowed.
R40	Limited evidence of a carcinogenic effect.
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



**JAVELIN**

Version 1  
Revision Date 15.08.2003

GB  
102000005801

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.