

**TOLKAN LIQUID**

Version 1
Revision Date 15.08.2003

GB
102000003724

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

Trade name : TOLKAN LIQUID
 Product code : AE F016410 00 SC47 A1
 Product code : EXP03808
 Specification : 18542
 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), contains:
Isoproturon 500 g/l SC

Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrases(s)	Concentration [%]
Isoproturon	34123-59-6	Xn, N	R22 R40 R50/53	47.00
Ethanediol	107-21-1	Xn	R22	<= 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 : After contact with skin, wash immediately with plenty of water.
 Eye contact : Rinse with plenty of water.

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

Notes to physician

Symptoms : Local:, none
 Symptoms : 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.

Treatment : Initial treatment should be symptomatic and supportive. In the event of a mouthful or more being ingested, the following measures should be considered:
 Monitoring of: cardiac, liver 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

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : water spray
 foam
 carbon dioxide (CO₂)
 dry powder

Specific hazards during fire fighting : carbon monoxide (CO)
 nitrogen oxides (NO_x)

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear suitable protective clothing.

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.

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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.
Pick up and fill the product into a tightly closed container.
When picked up, treat material as prescribed under heading "Disposal".

7. HANDLING AND STORAGE**Handling**

Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion : The product is not explosive.

Storage

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place.

Further information on storage conditions : Protect against frost.
Do not store at temperature exceeding 50 °C.

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 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 ³ (TWA)	2001	EH40 OES
		60 mg/m ³ (TWA)	2001	EH40 OES
		125 mg/m ³ (STEL)	2001	EH40 OES
		52 mg/m ³ (TWA)	05 2001	EU ELV
		104 mg/m ³ (STEL)	05 2001	EU ELV

Personal protective equipment

Hand protection : Neoprene gloves
PVC or nitrile rubber gloves



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- Eye protection : Safety glasses / face shield
- Skin and body protection : Wear suitable protective clothing.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
- Protective measures : Avoid contact with skin and eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

- Form : liquid
Colour : white opaque

Safety data

- pH : 8 - 9
Note: Determined as a 1% suspension in distilled water.
- Freezing temperature : -2 °C
- Flash point : Note: Not relevant; aqueous solution
- Ignition temperature : > 470 °C
- Density : 1.065 - 1.085 g/l at 20 °C
- Water solubility : Note: dispersible
- Viscosity, dynamic : 30 - 80 mPa.s

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity : LD50 (rat) 6.6 g/kg
- Acute inhalation toxicity : LC50 (rat) > 0.377 mg/l
Exposure time: 4 h
Remarks: Highest attainable concentration.
- Acute dermal toxicity : LD50 (rat) > 4,134 mg/kg
- Skin irritation : rabbit
Result: slight irritant effect - does not require labelling



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- Eye irritation : rabbit
Result: slight irritant effect - does not require labelling
- Sensitization : guinea pig
Result: non-sensitizing
Method: OECD Test Guideline 406, Buehler test
Test substance: Test conducted with a similar formulation.
- 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: 82 mg/l
Rainbow trout (*Oncorhynchus mykiss*)
Exposure time: 96 h
- Toxicity to daphnia : EC50: > 1,000 mg/l
Daphnia
Exposure time: 48 h
- Toxicity to algae : EC50: 78 µg/l
Scenedesmus subspicatus
Exposure time: 72 h

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.

14. TRANSPORT INFORMATION

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ADR/RID/	: UN-No	3082
ADNR	Labels	9
	Packaging group	III
	Hazard no.	90
	Description of the goods	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOPROTURON 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. (ISOPROTURON SOLUTION)
IATA	: UN-No	3082
	Class	9
	Packaging group	III
	Description of the goods	Environmentally hazardous substance, liquid, n.o.s. (ISOPROTURON 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. (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

Symbol(s):	: Xn N	Harmful Dangerous for the environment
R-phrase(s)	: R40 R50/53	Possible risks of irreversible effects. 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



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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.

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.

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.