



Bayer Environmental Science

FINALE 150

Version 1
Revision Date 09.07.2003

GB
102000000575

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

Trade name : FINALE 150
 Product code : AE F039866 00 SL14 A1
 Specification : 21042
 Usage : herbicide
 Company : Bayer Environmental Science
 Durkan House
 214-224 High Street
 Waltham Cross
 Hertfordshire EN8 7DP
 United Kingdom

Telephone : +44(0)1992 784270
 Telefax : +44(0)1992 784276

Emergency telephone number : 0800-220876 (UK only)
 +44(0)1223-870312

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

Soluble concentrate (SL), contains:
 Glufosinate-ammonium 150 g/l

Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrases(s)	Concentration [%]
Glufosinate ammonium	77182-82-2	Xn	R22	14.00
Alkylethersulfate, sodium salt	68891-38-3	Xi	R38 R41	> 50.00
1-Methoxy-2-propanol	107-98-2		R10	> 5.00 - < 25.00

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

Harmful in contact with skin and if swallowed.
 Risk of serious damage to eyes.

4. FIRST AID MEASURES

General advice : Remove soiled or soaked clothing immediately.

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- Skin contact : In case of contact with skin wash off immediately with soap and water. If skin problems persist, seek medical advice.
- Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Ingestion : When swallowed accidentally, do not induce vomiting, get medical help. Rinse mouth thoroughly with water.

Notes to physician

- Symptoms : shivering; disturbance of consciousness, cramps after several hours delay., gastrointestinal discomfort, hyperthermia, dyspnoea, bradycardia/tachycardia
- Treatment : Emergency measures: Symptomatic treatment and administration of antidotes, decontamination.
Contraindication: atropine
Endotracheal intubation should be done and gastric lavage performed, followed by administration of Charcoal and Sodium Sulphate.
Therapeutical: Phenobarbital-Sodium, 1 mg/kg intra-muscular or subcutaneously till maximum 5 mg/kg daily; when necessary, 10 mg Diazepam slowly intravenously.
Elimination by dialysis (forced alkaline diuresis) or haemoperfusion.
ECG - monitoring (Electrocardiogram)
EEG - monitoring (Electroencephalogram)
Monitoring of: respiratory, cardiac and central nervous system.
Oxygen, if needed.
In the event of a mouthful or more being ingested, keep under medical supervision for at least 48 hours.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : water spray jet
foam
carbon dioxide (CO₂)
dry powder
- 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, wear self-contained breathing apparatus. Wear full protective suit.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.



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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment.
Keep away sources of ignition.

- 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).
For disposal, pack in tightly closed containers.

- 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 : Handle in accordance with good industrial hygiene and safety practice.

- Advice on protection against fire and explosion : The product is flammable.
The product is neither self-ignitable, nor forms an explosion hazard, nor does it promotes fires.

Storage

- Requirements for storage areas and containers : Store in original container.

- Further information on storage conditions : Keep containers tightly closed in a dry, cool and well-ventilated place.
The storage temperature should lie between 0 °C and 30 °C, maximum up to 50 °C.
Protect against moisture.
Keep away from direct sunlight.
Protect against heath.

- Advice on common storage : Do not store together with foodstuffs or animal feedstuffs.

- Suitable materials : Use containers made of Polyethylene.



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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-Methoxy-2-propanol	107-98-2	375 mg/m ³ (TWA)	2001	EH40 OES
		1,120 mg/m ³ (STEL)	2001	EH40 OES
		375 mg/m ³ (TWA)	05 2001	EU ELV
		568 mg/m ³ (STEL)	05 2001	EU ELV

Engineering measures

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

Personal protective equipment

- Hand protection : Chemical resistant gloves
- Eye protection : Safety glasses / face shield
- Skin and body protection : protective suit
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Do not eat, drink or smoke during work time.
Remove soiled clothing immediately.
Clean hands and face at work intervals and after work.
Store work clothing separately.
- Protective measures : Avoid contact with skin and eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

- Form : liquid
- Colour : blue
- Odour : weakly pungent

Safety data

- pH : 7.2
Note: Determined as a 1% solution in distilled water.
- Boiling point/range : ca. 99 °C at 1.013 hPa
- Flash point : 57 °C
Note: The product does not sustain combustion.



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Autoignition temperature	:	> 400 °C
Water solubility	:	at 20 °C Note: Miscible
Surface tension	:	28.9 mN/m at 40 °C
Explosivity	:	Note: none

10. STABILITY AND REACTIVITY

Hazardous decomposition products	:	ammonia
Thermal decomposition	:	> 200 °C Note: No decomposition upto 400 °C.
Hazardous reactions	:	Reactions with strong alkalies.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	LD50 (rat) 1,730 mg/kg
Acute dermal toxicity	:	LD50 (rat) 593 mg/kg
Skin irritation	:	rabbit Result: slight irritant effect - does not require labelling
Eye irritation	:	rabbit Result: Risk of serious damage to eyes.
Sensitization	:	guinea pig Result: non-sensitizing Method: OECD Test Guideline 406, Buehler test

12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)**

Biodegradability	:	Remarks: According to the results of tests on biodegradability this product is considered as being readily biodegradable.
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Ecotoxicity effects

Toxicity to fish	:	LC50: 13.4 mg/l Rainbow trout (<i>Oncorhynchus mykiss</i>) Exposure time: 96 h
Toxicity to daphnia	:	EC50: 17.8 mg/l Water flea (<i>Daphnia magna</i>) Exposure time: 48 h

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Toxicity to algae : EC50: 53.3 mg/l
Senastrum capricornutum
Exposure time: 96 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 after concentration, 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 after cleaning, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

Waste key for the unused product : 020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION

ADR/RID/ADNR	:	UN-No	2902
		Labels	6.1
		Packaging group	III
		Hazard no.	60
		Description of the goods	UN 2902 PESTICIDE, LIQUID, TOXIC, N.O.S. (GLUFOSINATE-AMMONIUM SOLUTION)
IMDG	:	UN-No	2902
		Class	6.1
		Packaging group	III
		EmS	6.1-02
		Description of the goods	PESTICIDE, LIQUID, TOXIC, N.O.S. (GLUFOSINATE-AMMONIUM SOLUTION)
IATA	:	UN-No	2902
		Class	6.1
		Packaging group	III
		Description of the goods	Pesticide, liquid, toxic, n.o.s. (GLUFOSINATE-AMMONIUM SOLUTION)



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CDG CPL : UN-No	2902
Class	6.1
Packaging group	III
Hazard identification number	60
Emergency action code	2X
Proper shipping name	PESTICIDE LIQUID, TOXIC, N.O.S. (GLUFOSINATE-AMMONIUM)

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:

- Glufosinate ammonium

Symbol(s):	: Xn	Harmful
R-phrase(s)	: R21/22	Harmful in contact with skin and if swallowed.
	R41	Risk of serious damage to eyes.
S-phrase(s)	: S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S35	This material and its container must be disposed of in a safe way.
	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
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**

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



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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.