

# SAFETY DATA SHEET

## FINALE

1044 1.00 GB Current 07.12.2000

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

<b>Trade Name</b>	FINALE
<b>Product (Specification) Code</b>	1044
<b>Aventis CropScience Product Code</b>	AE F039866 00 SL11 A2
<b>Usage</b>	Solution concentrate (water based) Desiccant. Herbicide
<b>Appearance</b>	Clear blue / green liquid
<b>Manufacturer/Supplier</b>	Bayer Environmental Science
<b>Address</b>	Durkan House 214-224 High Street Waltham Cross Hertfordshire EN8 7DP
<b>Phone Number</b>	01992 784270
<b>Fax Number</b>	01992 784276
<b>Emergency Phone Number</b>	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. Glufosinate-ammonium	77182-82-2	11.30	R22	Xn
2. Alkyl ether sulphate sodium salt	32612-48-9	5.00 < 25.00	R38, R41	Xi
3. 1-Methoxy-2-propanol	107-98-2	5.00 < 25.00	R10	f

### 3. HAZARDS IDENTIFICATION

<b>Main Hazards</b>	Not classified as hazardous.
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### 4. FIRST-AID MEASURES

<b>Eyes</b>	In case of eye contamination, rinse immediately with water for at least 15 minutes and obtain medical aid.
<b>Skin</b>	In case of contact with skin, carefully remove contaminated clothing and thoroughly wash affected area with soap and water. Seek medical aid if at all worried.
<b>Ingestion</b>	Wash out mouth with water. Do NOT induce vomiting. Keep patient at rest and seek URGENT medical aid.
<b>Inhalation</b>	If inhaled, remove to fresh air and keep at rest. Obtain medical aid if at all worried.
<b>Advice to Physicians</b>	<p>SYMPTOMS OF POISONING MAY BE DELAYED FOR 24 TO 36 HOURS AFTER INGESTION.</p> <p>Thus, FOLLOWING INGESTION AND IRRESPECTIVE OF THE AMOUNT INGESTED, THE PATIENT SHOULD BE ADMITTED TO HOSPITAL FOR AT LEAST 24 HOURS AND TREATED IMMEDIATELY AS OUTLINED BELOW.</p> <p>Brief Summary of Symptoms and Signs: Local Contamination: None documented to-date. Systemic poisoning causes tremor, hyperthermia, dyspnoea, disturbance of consciousness, convulsions, respiratory depression, amnesia and bradycardia/tachycardia.</p> <p>Treatment: Local Contamination: Symptomatic after decontamination. In case of skin and eye contamination, treat as documented above under 'First Aid Measures'. Systemic Poisoning: a) Respiratory, Cardiac and Central Nervous System should be monitored with particular regard to ECG, electrolyte balance (especially for hypokalaemia) and signs of raised intra-cranial pressure. b) Endotracheal intubation should be done and gastric lavage performed,</p>

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### 4. FIRST-AID MEASURES (continued)

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followed by Charcoal and Sodium Sulphate administration.  
c) Dialysis or direct haemo-perfusion should be carried out to eliminate the compound from the body.  
PLEASE NOTE; It is ESSENTIAL that the above measures are carried out as soon as possible after ingestion to be effective.  
d) In the event of convulsions, administer Phenobarbital I.V or I.M. Alternatively, administer Diazepam I.V.  
e) There is no specific antidote and Atropine is contra-indicated.  
e) Recovery is spontaneous, usually within 48 hours.  
Further advice is available from;  
Bayer Environmental Science via the emergency telephone number above or from the nearest Poisons Unit.

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### 5. FIRE-FIGHTING MEASURES

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<b>Extinguishing Media</b>	Product is not combustible. If product is involved in a fire, use waterspray, foam, dry powder, carbon dioxide or sand.
<b>Unsuitable Extinguishing Media</b>	None.
<b>Special Exposure Hazards</b>	May give off toxic fumes if heated to decomposition.
<b>Protective Equipment for Fire-Fighting</b>	Do not breathe fumes. Wear self contained breathing apparatus.
<b>Fire Fighting Guidance</b>	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.

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### 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal Precautions</b>	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.
<b>Environmental Precautions</b>	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.
<b>Spillages</b>	Contain/absorb spillage in sand/earth or in a suitable inert material. Transfer collected material to heavy duty plastic drums and keep safe for disposal.
<b>Note</b>	Check also for any local site procedures in force.

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### 7. HANDLING AND STORAGE

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<b>Handling</b>	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.
<b>Storage</b>	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.
<b>Technical Storage Measures</b>	Protect from frost.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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<b>Occupational Exposure Standards</b>	
1. <b>Product</b>	None assigned.
2. <b>1-Methoxy-2-propanol</b>	UK EH40: OES 100ppm (375mg/m <sup>3</sup> ) 8h TWA. UK EH40: OES 300ppm (1120mg/m <sup>3</sup> ) 15min STEL.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<b>Engineering Control Measures</b>	Refer to any applicable COSHH assessments. Engineering controls should be used where practicable in preference to personal protection.
<b>Respiratory Protection</b>	None required when handling the product.
<b>Hand Protection</b>	Wear chemical resistant PVC or nitrile gloves.
<b>Eye Protection</b>	Wear safety goggles with unperforated side shield or goggles (conforming to BS EN 166 or BS 2092 for older goggles).
<b>Other</b>	Wear PVC or chemical resistant disposable overalls and PVC boots.
<b>Other Information</b>	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

<b>Physical State</b>	Liquid.
<b>Colour</b>	Blue. Green.
<b>Odour</b>	Faint. Pungent.
<b>pH</b>	Range between 5.5 to 7.5.
<b>Boiling Range/Point (deg C)</b>	Not determined.
<b>Melting Point/Freezing Point (deg C)</b>	Not determined.
<b>Flash Point (deg C)</b>	Exceeds 95.
<b>Explosion Limits (%)</b>	No data.
<b>Solubility in Water</b>	Miscible.
<b>Vapour Pressure</b>	No data.
<b>Density (g/ml)</b>	1.06 at 20 °C.
<b>Flammability</b>	Not combustible
<b>Auto-flammability (deg C)</b>	445
<b>Explosive Properties</b>	None.
<b>Oxidising Properties</b>	None.
<b>Vapour Density (Air = 1)</b>	Not determined.
<b>Dust Explosion Data</b>	Not applicable
<b>Summary/Other Data</b>	A non-combustible liquid.

### 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable at ambient conditions.
<b>Conditions to Avoid</b>	None.
<b>Materials to Avoid</b>	None under normal conditions of use.

### 11. TOXICOLOGICAL INFORMATION

<b>Inhalation</b>	Expected to be of low inhalational toxicity.
<b>Skin and Eye Contact</b>	Low toxicity; rat dermal LD50 4000 mg/kg. Slight and reversible irritant to rabbit skin and eyes (labelling not indicated). Negative in a guinea pig skin sensitisation test.
<b>Ingestion</b>	Low toxicity; rat oral LD50 3570 mg/kg.
<b>Carcinogenicity</b>	Data given in this section are for the active ingredient: Not carcinogenic.

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### 11. TOXICOLOGICAL INFORMATION (continued)

<b>Genotoxicity</b>	Data given in this section are for the active ingredient: Not mutagenic.
<b>Reproductive Toxicity</b>	Data given in this section are for the active ingredient: Non-embryotoxic in the absence of maternal toxicity (NOEL 2.24 mg/kg).

### 12. ECOLOGICAL INFORMATION

<b>Mobility</b>	Data given in this section are for the active ingredient: Risk of leaching if clay content < 5 %.
<b>Persistence/Degradability</b>	Data given in this section are for the active ingredient: Soil DT50 3 to 10 days (laboratory) . Soil DT50 (field) 7 to 20 days .
<b>Bio-accumulation</b>	Data given in this section are for the active ingredient: Koc = 10 to 1230. Does not bio-accumulate in fish.
<b>Aquatic Toxicity</b>	Product; 96 hr LC50 rainbow trout 42.3 mg/l, carp 79 mg/l, 48 hr EC50 daphnia > 100 mg/l. Glufosinate ammonium; 96 hr LC50 rainbow trout 710 mg/l, bluegill sunfish > 1000 mg/l, carp > 1000 mg/l, 48 hr EC50 daphnia 560 to 1000 mg/l.
<b>Other Toxicity</b>	Data given in this section are for the active ingredient: Low toxicity to the following species; bees


### 13. DISPOSAL CONSIDERATIONS

<b>Product Disposal</b>	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.
<b>Container Disposal</b>	Lightly contaminated packaging may be acceptable for landfill, otherwise incineration will be required. See above for advice.

### 14. TRANSPORT INFORMATION

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

### 15. REGULATORY INFORMATION

<b>Risk symbol</b>	 Irritant
<b>Hazard Classification</b>	Not classified
<b>Designated Name</b>	Finale (contains glufosinate-ammonium 120 g/l )
<b>R phrases</b>	36-Irritating to eyes.

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### 15. REGULATORY INFORMATION (continued)

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<b>S phrases</b>	26-In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 36/37-Wear suitable protective clothing and gloves. 45-In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
<b>Control of Pesticides Regulations 1986: Precautions</b>	WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS AND FACE PROTECTION ( FACESHIELD) when handling the concentrate. WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when adjusting and maintaining equipment. WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS AND FACE PROTECTION ( FACESHIELD) when applying by hand-held equipment. WHEN USING DO NOT EAT, DRINK OR SMOKE. WASH CONCENTRATE from skin or eyes immediately. WASH HANDS AND EXPOSED SKIN before meals and after work. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS. KEEP OUT OF REACH OF CHILDREN. HARMFUL TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface waters or ditches with chemical or used container. KEEP LIVESTOCK OUT of treated areas until foliage of poisonous weeds such as ragwort have died and become unpalatable. KEEP IN ORIGINAL CONTAINER, tightly closed in a safe place. WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.
<b>Note</b>	The labelling information above is that which has been approved under 'The Control of Pesticide Regulations 1986' and may differ from that indicated by any toxicological and/or other testing otherwise indicated in this 'Safety Data Sheet' If you require any further clarification please contact Bayer Environmental Science via the phone number quoted elsewhere in this 'Safety Data Sheet'.

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### 16. OTHER INFORMATION

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<b>MSDS first issued</b>	7 December 2000
<b>MSDS data revised</b>	
<b>Footnote</b>	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 ammendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.
<b>Disclaimer</b>	

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.

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