

**CHALLENGE 60 21045 4X5L GB**Version 1 / GB  
102000005791/7  
Revision Date: 02.03.2004  
Print Date: 01.07.2004**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING****Product information**

Trade name	CHALLENGE 60 21045 4X5L GB
Product code (UVP)	05936136
Product code	AE F039866 00 SL06 A3
Specification	21045
Usage	herbicide
Company	Bayer CropScience Limited Hauxton Cambridge Cambridgeshire CB2 5HU Great Britain
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**Soluble concentrate (SL)  
Glufosinate-ammonium 60 g/l**Hazardous components**

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrases	Concentration [%]
Glufosinate ammonium	77182-82-2 278-636-5	Xn	R22	6.00
Alkylethersulfate, sodium salt	68891-38-3	Xi	R38, R41	>= 1.00 - < 10.00
Perfluorinated Phosphinic- /Phosphonic acids		Xn, N	R22, R51/53	>= 0.10 - < 5.00

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

No hazards to be specially mentioned.

**4. FIRST AID MEASURES****Skin contact**

Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician.

**Eye contact**

Immediately flush eye(s) with plenty of water. If eye irritation persists, consult a specialist.

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Do not induce vomiting. Rinse mouth thoroughly with water. If symptoms persist, call a physician.

**Notes to physician****Symptoms**

Systemic:; gastrointestinal discomfort, hyperthermia, dyspnoea, bradycardia/tachycardia, shivering; disturbance of consciousness, cramps after several hours delay.

**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.

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**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

water spray

foam

carbon dioxide (CO<sub>2</sub>)

dry powder

**Specific hazards during fire fighting**

The product itself does not burn.

In the event of fire the following can be released:

carbon monoxide (CO)

nitrogen oxides (NO<sub>x</sub>)

Sulphur oxides

phosphorus oxides (eg phosphorus pentoxide)

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.

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**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Use personal protective equipment.

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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).  
Keep in suitable, closed containers 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.

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**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 not combustible.

**Storage**

Requirements for storage areas and containers  
Store in original container.  
Keep containers tightly closed in a cool, well-ventilated place.

Further information on storage conditions  
Protect against frost.  
Keep away from direct sunlight.

Advice on common storage  
Keep away from food, drink and animal feedingstuffs.

Storage stability

Storage period	> 24 Months
Storage temperature	20 - 30 °C
Other data	Stable under recommended storage conditions.

Suitable materials  
glass  
polyethylene

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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.

**Engineering measures**

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

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

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

Form	liquid
Colour	blue green
Odour	soapy

**Safety data**

pH	6.4 Determined in the undiluted form
Boiling point/ range	ca. 98 °C at 1,013 hPa
Flash point	> 100 °C closed cup
Ignition temperature	565 °C
Density	1.04 g/cm <sup>3</sup> at 20 °C
Water solubility	at 20 °C soluble
Viscosity, dynamic	ca. 36 mPa.s at 20 °C
Combustion number	not applicable

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**10. STABILITY AND REACTIVITY**

Hazardous decomposition products	ammonia
Thermal decomposition	> 200 °C Heating rate: 10 K/min DSC

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Hazardous reactions                      Reactions with strong alkalis.  
Stable under recommended storage conditions.

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**11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	LD50 (rat) > 4,000 mg/kg
Acute dermal toxicity	LD50 (rat) > 4,000 mg/kg
Skin irritation	slight irritant effect - does not require labelling (rabbit)
Eye irritation	non-irritant (rabbit)
Sensitization	non-sensitizing (guinea pig) OECD Test Guideline 406, Buehler test

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**12. ECOLOGICAL INFORMATION**

Biodegradability                      partially biodegradable

**Ecotoxicity effects**

Toxicity to fish	LC50 (Rainbow trout ( <i>Oncorhynchus mykiss</i> )) 42.3 mg/l Exposure time: 96 h
Toxicity to daphnia	EC50 (Water flea ( <i>Daphnia magna</i> )) > 56 mg/l Exposure time: 48 h
Toxicity to algae	EC50 ( <i>Scenedesmus subspicatus</i> ) 36 mg/l Exposure time: 72 h Test conducted with a similar formulation.
Toxicity to bacteria	EC10 > 1,000 mg/l

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**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 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

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<b>ADNR</b>	Not dangerous goods
<b>ADR</b>	Not dangerous goods
<b>GGVE</b>	Not dangerous goods
<b>GGVS</b>	Not dangerous goods
<b>IATA_C</b>	Not dangerous goods
<b>IATA_P</b>	Not dangerous goods
<b>IMDG</b>	Not dangerous goods
<b>RID</b>	Not dangerous goods
<b>CDG CPL</b>	Not dangerous goods

**15. REGULATORY INFORMATION**

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

Classification:

Does not require a hazard warning label, but the normal safety precautions for handling of chemicals must be observed.

Hazardous components which must be listed on the label:

- Glufosinate ammonium

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: III (Slightly hazardous)

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

Text of R phrases mentioned in Section 2:

R22	Harmful if swallowed.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R51/53	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.



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