

**LEYCLENE 21413 4X5L GBST**Version 1 / GB
1020000025881/10
Revision Date: 03.11.2003
Print Date: 03.11.2003**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING****Product information**

Trade name	LEYCLENE 21413 4X5L GBST
Product code (UVP)	05939151
Product code	AE B049913 05 EC31 A1
Product code (EXP)	CR16804
Specification	21413
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**Emulsifiable concentrate (EC), contains:
Ethofumesate/Bromoxynil/loxylnil 200:50:25 g/l EC**Hazardous components**

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrase(s)	Concentration [%]
Ethofumesate	26225-79-6 247-525-3	N	R51/53	20.00
Bromoxynil octanoate	1689-99-2 216-885-3	Xn, N	R21/22, R50/53, R63	7.30
loxylnil octanoate	3861-47-0 223-375-4	Xn, N	R22, R50/53, R63	3.40
Dodecyl benzene sulphonate, calcium salt	68953-96-8 273-234-6	Xi	R38, R41, R51/53	> 1.00 - < 5.00
Hexan-1-ol	111-27-3 203-852-3	Xn	R22	> 1.00 - < 5.00
Methanol	67-56-1 200-659-6	F, T	R11, R23/24/25, R39/23/24/25	> 0.10 - < 1.00
Alkyloxylylated alkyl phenol	37205-87-1	Xn, N	R22, R41, R51/53	> 0.10 - < 1.00
Solvent naphtha (petroleum), heavy arom.		Xn, N	R65, R66, R67, R51/53	> 0.10 - < 1.00
Cyclohexanone	108-94-1 203-631-1	Xn	R10, R20	> 5.00 - < 25.00
Xylene	1330-20-7 215-535-7	Xn	R10, R20/21, R38	> 25.00 - < 50.00



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3. HAZARDS IDENTIFICATION

Risk advice to man and the environment

Flammable.
Harmful by inhalation, in contact with skin and if swallowed.
Irritating to skin.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Possible risk of harm to the unborn child.

4. FIRST AID MEASURES

General advice

Remove contaminated, soaked clothing immediately and dispose of safely.

Inhalation

Move the patient to fresh air and keep at rest. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Eye contact

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion

Wash out mouth with water. Do not induce vomiting. Keep at rest. Seek URGENT medical advice.

Notes to physician

Symptoms

Local:, May cause skin and eye irritation.

Symptoms

Systemic:, nausea, vomiting, hyperventilation, sweating, salivation, hyperthermia, convulsions

Treatment

Local treatment:

Initial treatment should be symptomatic and supportive.

Treatment

Systemic treatment:

In the event of a mouthful or more being ingested, the following measures should be considered:

Monitoring of respiratory and cardiac functions

Keep airway clear, administer artificial respiration if necessary.

Gastric lavage with charcoal, if necessary further treatment.

Against convulsions: Give diazepam: for adults 5-10 mg intravenously as necessary until fully sedated; for children 2.5 mg i.v.

Contraindications: antipyretics

Keep at rest.

In case of fever it is essential to cool the victim down.

Absolute quiet is necessary.

5. FIRE-FIGHTING MEASURES



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Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media which must not be used for safety reasons

high volume water jet

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 and/or explosion do not breathe fumes.

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.

Whenever possible, contain fire-fighting water by bunding area with sand or earth.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid contact with spilled product or contaminated surfaces.

When dealing with a spillage do not eat, drink or smoke.

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).

Transfer collected material to heavy duty plastic drums and keep safe for disposal.

Clean contaminated floors and objects thoroughly, observing environmental regulations

Additional advice

Information regarding safe handling, see section 7.

Information regarding personal protective equipment, see section 8.

Information regarding waste disposal, see section 13.

Check also for any local site procedures.

7. HANDLING AND STORAGE

Handling

Advice on safe handling

No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.

Provide good ventilation of working area (local exhaust ventilation if necessary).

Advice on protection against fire and explosion

The product is flammable.

Keep away from sources of ignition - No smoking.

Vapours may form explosive mixture with air.

Storage



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Requirements for storage areas and containers
Keep containers tightly closed in a cool, well-ventilated place.
Store in a place accessible by authorized persons only.

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

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

Storage stability
Storage temperature 0 - 30 °C

Suitable materials
Keep in original packaging, tightly closed.

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
Methanol	67-56-1	266 mg/m3 (TWA) 333 mg/m3 (STEL) 260 mg/m3 (TWA)	2001 2001 05 2001	EH40 OES EH40 OES EU ELV
Cyclohexanone	108-94-1	102 mg/m3 (TWA) 408 mg/m3 (STEL) 40.8 mg/m3 (TWA) 81.6 mg/m3 (STEL)	2001 2001 05 2001 05 2001	EH40 OES EH40 OES EU ELV EU ELV
Xylene	1330-20-7	441 mg/m3 (TWA) 662 mg/m3 (STEL) 221 mg/m3 (TWA) 442 mg/m3 (STEL)	2001 2001 05 2001 05 2001	EH40 OES EH40 OES EU ELV EU ELV

Additional advice

Observe: Exposure Limits In Air, Gp3 200mg/m³/50ppm. (aromatic-rich hydrocarbon mixes with > 25% aromatics TRGS 901, No. 72)

Personal protective equipment

- Respiratory protection Short term: filter apparatus, Filter A
- Hand protection Chemical resistant gloves
PVC gloves
nitrile gloves
- Eye protection Chemical resistant goggles must be worn.
- Skin and body protection Light protective clothing, PVC
PVC boots



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Materials to avoid	None
Hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions. Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 (rat) 1,300 mg/kg
Acute inhalation toxicity	LC50 (rat) > 2 - < 20 mg/l Exposure time: 4 h Information given is based on data on the components and the toxicology of similar products
Acute dermal toxicity	LD50 (rat) < 2,000 mg/kg Information given is based on data on the components and the toxicology of similar products
Skin irritation	Irritating to skin. (rabbit) Information given is based on data on the components and the toxicology of similar products
Eye irritation	No eye irritation (rabbit) Information given is based on data on the components and the toxicology of similar products
Sensitization	non-sensitizing (guinea pig) Information given is based on data on the components and the toxicology of similar products
Assessment teratogenicity	Possible risk of harm to the unborn child.
Further information	When inhaled in larger quantities, the solvent vapours cause a narcotic effect.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability	< 37 % Not readily biodegradable. aerobic The value mentioned relates to the active ingredient bromoxynil octanoate.
Bioaccumulation	Rainbow trout Bioconcentration factor (BCF): 67 - 144 The value mentioned relates to the active ingredient ethofumesate.



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Bioaccumulation	Bluegill sunfish Bioconcentration factor (BCF): 230 The value mentioned relates to the active ingredient bromoxynil octanoate.
Bioaccumulation	Rainbow trout Bioconcentration factor (BCF): 163 - 212 The value mentioned relates to the active ingredient ioxynil octanoate.
Ecotoxicity effects	
Toxicity to fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 11.91 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient ethofumesate.
Toxicity to fish	LC50 (<i>Lepomis macrochirus</i> (Bluegill sunfish)) 12.37 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient ethofumesate.
Toxicity to fish	LC50 (<i>Cyprinus carpio</i> (Carp)) 10.92 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient ethofumesate.
Toxicity to fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 0.041 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient bromoxynil octanoate.
Toxicity to fish	LC50 (Bluegill sunfish) 0.024 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient ioxynil octanoate.
Toxicity to daphnia	EC50 (Water flea (<i>Daphnia magna</i>)) 13.52 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient ethofumesate.
Toxicity to daphnia	EC50 (Water flea (<i>Daphnia magna</i>)) 0.046 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient bromoxynil octanoate.
Toxicity to daphnia	EC50 (Water flea (<i>Daphnia magna</i>)) 0.011 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient ioxynil octanoate.
Toxicity to algae	EC50 (Algae) 3.9 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient ethofumesate.



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Toxicity to algae	EC50 (Navicula pelliculosa (diatom algae)) 0.043 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient bromoxynil octanoate.
Toxicity to algae	EC50 (Navicula pelliculosa (diatom algae)) 0.24 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient ioxynil octanoate.
Toxicity to other organisms	LD50 (Mallard duck) > 3,552 mg/kg The value mentioned relates to the active ingredient ethofumesate.
Toxicity to other organisms	LD50 (Bobwhite quail) > 8,743 mg/kg The value mentioned relates to the active ingredient ethofumesate.
Toxicity to other organisms	LD50 (Bobwhite quail) 170 mg/kg The value mentioned relates to the active ingredient bromoxynil octanoate.
Toxicity to other organisms	LD50 (Bobwhite quail) 677 mg/kg The value mentioned relates to the active ingredient ioxynil octanoate.

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

14. TRANSPORT INFORMATION

ADR/RID/ADNR

UN-No	1993
Labels	3
Packaging group	III
Hazard no.	30
Description of the goods	UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHOFUMESATE, XYLENE SOLUTION)

IMDG

UN-No	1993
Class	3



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Packaging group	III
Marine pollutant	Marine pollutant
Description of the goods	FLAMMABLE LIQUID, N.O.S. (ETHOFUMESATE, XYLENE SOLUTION)

IATA

UN-No	1993
Class	3
Packaging group	III
Description of the goods	FLAMMABLE LIQUID, N.O.S. (ETHOFUMESATE, XYLENE SOLUTION)

CDG CPL

UN-No	1993
Class	3
Packaging group	III
Hazard identification number	30
Emergency action code	3Y
Proper shipping name	FLAMMABLE LIQUID, N.O.S. (XYLENE)

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:

- Ethofumesate
- Bromoxynil
- Ioxynil
- Cyclohexanone
- Xylene

Symbol(s)

Xn	Harmful
N	Dangerous for the environment

R-phrases(s)

R10	Flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R38	Irritating to skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63	Possible risk of harm to the unborn child.

S-phrases(s)

S35	This material and its container must be disposed of in a safe way.
S36/37	Wear suitable protective clothing and gloves.
S57	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)



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16. OTHER INFORMATION

Further information

Text of R phrases mentioned in Section 2:

R10	Flammable.
R11	Highly flammable.
R20	Harmful by inhalation.
R20/21	Harmful by inhalation and in contact with skin.
R21/22	Harmful in contact with skin and if swallowed.
R22	Harmful if swallowed.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R38	Irritating to skin.
R39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R41	Risk of serious damage to eyes.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63	Possible risk of harm to the unborn child.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

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.
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