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

Product information

Trade nameDICOTOX EXTRA EC400 1X25L JUG GBProduct code (UVP)05923115UsageherbicideCompanyBayer Environmental Science
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Great Britain

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Emulsifiable concentrate (EC) 2,4-D 400 g/l

Hazardous components

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrase(s)	Concentration [%]
2,4-D ethylhexyl ester	1928-43-4 217-673-3	Xn, N	R22, R43, R50/53	60.40
Ethoxylated polyarylphenol	99734-09-5		R52/53	> 1.00 - < 5.00
Calcium dodecylbenzenesulfonate, branched	70528-83-5 274-654-2	Xi, N	R38, R41, R51/53	> 1.00 - < 5.00
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5 265-198-5	Xn, N	R40, R51/53, R65, R66, R67	> 25.00 - < 50.00

3. HAZARDS IDENTIFICATION

Risk advice to man and the environment

Harmful if swallowed. Limited evidence of a carcinogenic effect. May cause sensitization by skin contact. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Harmful: may cause lung damage if swallowed. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.



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4. FIRST AID MEASURES

General advice

Remove contaminated clothing immediately and dispose of safely.

Inhalation

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

Skin contact

Wash off thoroughly with plenty of water and soap, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.

Eye contact

In case of contact with eyes rinse thoroughly with water. Get medical attention if irritation develops and persists.

Ingestion

Do not induce vomiting. Induce vomiting only, if: 1. patient is fully conscious, 2. medical aid is not readily available, 3. a significant amount (more than a mouthful) has been ingested and 4. time since ingestion is less than 1 hour. (Vomit should not get into the respiratory tract). Rinse mouth. Keep patient warm and at rest.

Notes to Physician

Symptoms

Local:, The product causes irritation of eyes, skin and mucous membranes.

Symptoms

Systemic:, mild acidosis, tachycardia, Irregular cardiac activity, low blood pressure, Circulatory collapse, cough, shortness of breath, nausea, vomiting, diarrhoea, abdominal pain, rhabdomyolysis, somnolence, coma, fever, 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:

Gastric lavage with charcoal, if necessary further treatment.

Observe specific parameters: blood pressure, levels of 2,4-D in plasma and urine, pH in urine. Elimination by dialysis (forced alkaline diuresis).

There is no specific antidote.

5. FIRE-FIGHTING MEASURES

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.

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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 diking area with sand or earth.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Keep people away from and upwind of spill/leak. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke.

Environmental Precautions

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, diatomaceous earth or a proprietary absorbent material).

Keep in suitable, closed containers for disposal.

Clean floors and contaminated objects with plenty of water.

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.

Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion

The product is combustible.

Keep away from sources of ignition - No smoking.

Vapours may form explosive mixture with air.

Storage

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. 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



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

Additional Advice

Observe: Exposure Limits In Air, Group 3: 100 mg/m³/ 20 ppm. (aromatic-rich hydrocarbon mixes with > 25% aromatics TRGS 901, No. 72)

Personal protective equipment

Respiratory Protection	Wear respirator conforming to EN140 type A filter. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
Hand Protection	Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.
Eye protection	Wear goggles conforming to EN166 (Field of Use 5 or equivalent).
Skin and body protection	Wear standard coverall and type 3 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.
Hygiene measures	

When using, do not eat, drink or smoke. Remove soiled clothing immediately. Remove soaked protective clothing immediately. Clean hands and face at work intervals and after work. Work in an adequately ventilated room.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Colour	amber
Safety data	
Flash Point	62 °C The data refers to solvent naphtha petroleum.
Ignition temperature	> 450 °C The data refers to solvent naphtha petroleum.



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Upper explosion limit	7.00 %(V) The data refers to solvent naphtha petroleum.
Lower explosion limit	0.8 %(V) The data refers to solvent naphtha petroleum.
Relative vapour density	1.00 The data refers to solvent naphtha petroleum.
Density	ca. 1.08 g/cm³ at 20 °C
Water Solubility	miscible

10. STABILITY AND REACTIVITY

Conditions to Avoid	Extremes of temperature and direct sunlight.
Materials to avoid	None.
Hazardous Reactions	No hazardous reactions when stored and handled according to prescribed instructions. Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD50 (rat) < 2,000 mg/kg
Acute Inhalation Toxicity	LC50 (rat) >5 mg/l Exposure time: 4 h
Acute Dermal Toxicity	LD50 (rat) > 2,000 mg/kg
Skin Irritation	No skin irritation. (rabbit)
Eye Irritation	No eye irritation. (rabbit)
Sensitization	sensitizing (guinea pig)

Further information

The product is a substance of the type Carc. Cat. 3. When inhaled in high concentration, the solvent vapours cause a narcotic effect. Information given is based on data on the components and the toxicology of similar products.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to Fish	LC50 (Rainbow trout (Oncorhynchus mykiss)) > 100 mg/l Exposure time: 96 h
	The value mentioned relates to the active ingredient 2,4-D.



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Toxicity to daphnia	EC50 (Daphnia) 5.2 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient 2,4-D-ethylhexyl ester.
Toxicity to algae	EC50 (Skeletonema costatum) 0.23 mg/l The value mentioned relates to the active ingredient 2,4-D-ethylhexyl ester.

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. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging

Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times.

Add washings to sprayer at time of filling.

Dispose of empty and cleaned packaging safely.

Large containers (> 25 I or > 25 kg) should not be rinsed or re-used for any other purpose. Return large containers to supplier.

Follow advice on product label and/or leaflet.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION

ADR/RID/ADNR UN-No Labels Packaging group Hazard no. Description of the goods	3082 9 III 90 UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D ETHYLHEXYL ESTER SOLUTION)
IMDG UN-No Class Packaging group EmS Marine pollutant Description of the goods	3082 9 III F-A , S-F Marine pollutant ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D ETHYLHEXYL ESTER SOLUTION)
IATA UN-No Class Packaging group	3082 9 111



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Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2,4-D ETHYLHEXYL ESTER SOLUTION)
UK 'Carriage' Regulations	
UN-No	3082
Labels	9
Packaging group	
Hazard no.	90
Emergency action code	3Z
Description of the goods	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
	(2,4-D ETHYLHEXYL ESTER SOLUTION)

15. REGULATORY INFORMATION

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

Classification:

Labelling according to EEC Directive

Hazardous components which must be listed on the label:

- 2,4-D
- Solvent Naphtha (petroleum), heavy aromatic

	(peroleum); heavy aromatic
Symbol(s) Xn N	Harmful Dangerous for the environment
R-phrase(s)	Harmful if swallowed.
R22	Limited evidence of a carcinogenic effect.
R40	May cause sensitization by skin contact.
R43	Very toxic to aquatic organisms, may cause long-term adverse effects in the
R50/53	aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.
S-phrase(s)	This material and its container must be disposed of in a safe way.
S35	Wear suitable protective clothing and gloves.
S36/37	Use appropriate container to avoid environmental contamination.
S57	If swallowed, do not induce vomiting: seek medical advice immediately and
S62	show this container or label.

CLASSIFICATION ACCORDING TO SPECIFIC UK REGULATIONS:

The labelling information below is that which has been approved under 'The Control of Pesticides Regulations 1986' and/or 'Part III of the Food and Environment Protection Act 1985' and/or 'Plant Protection Product Regulations 1999' and any subsequent amendments and may differ from that indicated by any toxicological and/or other testing otherwise indicated in this 'Safety Data Sheet'.

Symbol(s)

Xn	Harmful
Ν	Dangerous for the environment



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R-phrase(s)	
R21/22	Harmful in contact with skin and if swallowed.
R36/38	Irritating to eyes and skin.
R43	May cause sensitization by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.
S-phrase(s)	
S24	Avoid contact with skin.
S35	This material and its container must be disposed of in a safe way.
S37	Wear suitable gloves.
S57	Use appropriate container to avoid environmental contamination.
S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Exceptional labelling

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

Text of R phrases mentioned in Section 2:

R22	Harmful if swallowed.	
R38	Irritating to skin.	
R40	Limited evidence of a carcinogenic effect.	
R41	Risk of serious damage to eyes.	
R43	May cause sensitization by skin contact.	
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.	
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.	
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



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of information or advice contained in this safety data sheet.

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