

**LONGBOW**Version 1 / GB
102000007762

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Revision Date: 17.11.2009

Print Date: 19.02.2010

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

Trade name LONGBOW
Product code (UVP) 05896401
Usage Herbicide
Company Bayer Environmental Science
230 Cambridge Science Park
Milton Road
Cambridge
Cambridgeshire CB4 0WB
Great Britain

Telephone +44(0)1223 226500
Telefax +44(0)1223 426240
Responsible Department Email: ukinfo@bayercropscience.com

Emergency telephone number 0800-220876 (UK 24 hr)
+44(0)1603-242424 (Overseas 24 hr)

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

No particular hazards known.

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

Soluble concentrate (SL)

MCPA /2,4-D/Mecoprop-P/Dicamba 70:70:42:20 g/l acid equivalent as DMA salts

Hazardous components

Chemical Name	CAS-No. / EC-No.	Symbol(s)	R-phrase(s)	Concentration [%]
MCPA, DMA salt	2039-46-5 218-014-2	Xn	R20/21/22	8.05
2,4-D, dimethylamine salt	2008-39-1 217-915-8	Xn, N	R22, R41, R43, R51/53	7.91
Mecoprop-P-dimethylamine salt	66423-09-4	Xn, N	R22, R41, R51/53	4.77
Dicamba, dimethylamine salt	2300-66-5 218-951-7	Xi	R36, R52/53	2.26

For the full text of the R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES**General advice**

When symptoms develop and persist, seek medical advice.



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Inhalation

Move the victim to fresh air and keep at rest.

Skin contact

Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Ingestion

Rinse mouth, ingest activated charcoal. Do not induce vomiting or give anything by mouth to an unconscious person.

Notes to Physician

Symptoms

If large amounts are ingested, the following symptoms may occur: acidosis, Tachycardia, Irregular cardiac activity, Cough, Shortness of breath, Nausea, Vomiting, Abdominal pain, Diarrhoea, rhabdomyolysis, Somnolence, Coma, Fever, Convulsions

Treatment

Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.

Elimination by dialysis (forced alkaline diuresis).

There is no specific antidote.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray
Foam
Dry chemical
Carbon dioxide (CO₂)

Extinguishing media which should not be used for safety reasons

High volume water jet

Specific hazards during fire fighting

In the event of fire the following may be released:

Carbon monoxide (CO)
Nitrogen oxides (NO_x)

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit.

Further information

Contain the spread of the fire-fighting media.

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.



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Environmental Precautions

Do not allow to get into surface water, drains and ground water.
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).
Collect and transfer the product into a properly labelled and tightly closed container.
Clean contaminated surface thoroughly.

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

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

Advice on protection against fire and explosion

No special precautions required.

Storage

Requirements for storage areas and containers

Protect from freezing.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in original container and out of the reach of children, preferably in a locked storage area.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

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.

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
MCPA	94-74-6	5 mg/m ³ (TWA)		OES BCS*
2,4-D	94-75-7	5 mg/m ³ (TWA)		OES BCS*
2,4-D	94-75-7	10 mg/m ³ (TWA)	2007	EH40 WEL
2,4-D	94-75-7	20 mg/m ³ (STEL)	2007	EH40 WEL

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Mecoprop-P	16484-77-8	5 mg/m ³ (TWA)		OES BCS*
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*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory Protection	No personal respiratory protective equipment normally required. 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 6 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.
Hygiene measures	When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Remove soiled clothing immediately and clean thoroughly before using again.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	liquid
Colour	brownish red
Odour	amine-like

Safety data

pH	9 - 10
Flash point	> 110 °C
Density	approx. 1.07 g/cm ³ at 20 °C
Water solubility	completely soluble

10. STABILITY AND REACTIVITY



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Conditions to Avoid	Extremes of temperature and direct sunlight.
Materials to avoid	Strong acids Strong oxidizing agents
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 > 2,000 mg/kg
Acute Dermal Toxicity	LD50 > 2,000 mg/kg
Skin Irritation	No skin irritation. (rabbit)
Eye Irritation	No eye irritation. (rabbit)
Sensitization	Non-sensitizing.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Toxicity to Fish	LC50 (Fish) > 110 mg/l Exposure time: 96 h
Toxicity to daphnia	EC50 (Water flea (Daphnia magna)) > 110 mg/l Exposure time: 48 h
Toxicity to algae	IC50 (Algae) 488 mg/l Exposure time: 72 h

13. DISPOSAL CONSIDERATIONS

Product

In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

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 l 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.



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Waste key for the unused product

020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION

According to national and international transport regulations not classified as dangerous goods.

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

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:

Hazard warning labelling not compulsory

Hazardous components which must be listed on the label:

- MCPA, DMA salt
- 2,4-D, dimethylamine salt
- Mecoprop-P-dimethylamine salt
- Dicamba, dimethylamine salt

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'.

S-phrase(s)

S 2	Keep out of the reach of children.
S13	Keep away from food, drink and animal feedingstuffs.
S20/21	When using do not eat, drink or smoke.
S23	Do not breathe spray.
S29/56	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
S36/37	Wear suitable protective clothing and gloves.
S51	Use only in well-ventilated areas.

Exceptional labelling

To avoid risks to man and the environment, comply with the instructions for use.
Contains 2,4-D dimethylamine salt. May produce an allergic reaction.

Further information

WHO-classification: III (Slightly hazardous)

16. OTHER INFORMATION

Further information

Text of R-phrases mentioned in Section 3

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.



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R22	Harmful if swallowed.
R36	Irritating to eyes.
R41	Risk of serious damage to eyes.
R43	May cause sensitization by skin contact.
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.

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