



LONGBOW SL 12X1L BOT ES

Version 8 / GB
102000007762

1/10
Revision Date: 27.01.2015
Print Date: 06.02.2015

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name LONGBOW SL 12X1L BOT ES
Product code (UVP) 05896401

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use Herbicide

1.3 Details of the supplier of the safety data sheet

Supplier Bayer Environmental Science
230 Cambridge Science Park
Milton Road
Cambridge
Cambridgeshire CB4 0WB
United Kingdom

Telephone 00800-1214 9451
Telefax +44(0)1223 426240
Responsible Department Email: ukinfo@bayercropscience.com

1.4 Emergency telephone no.

Emergency telephone no. 0800-220876 (UK 24 hr)
+44(0)1635-563000 (Overseas 24 hr)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Eye irritation: Category 2
H319 Causes serious eye irritation.

Chronic aquatic toxicity: Category 3
H412 Harmful to aquatic life with long lasting effects.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Not classified, the classification criteria are not met.

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- MCPA
- 2,4-D
- mecoprop-P [1] and its salts, (R)-2-(4-chloro-2-methylphenoxy)propionic acid
- Dicamba

**LONGBOW SL 12X1L BOT ES**Version 8 / GB
102000007762

2/10

Revision Date: 27.01.2015

Print Date: 06.02.2015

**Signal word:** Warning**Hazard statements**

H319 Causes serious eye irritation.
 H412 Harmful to aquatic life with long lasting effects.
 EUH208 Contains 2,4-D. May produce an allergic reaction.
 EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P305 + P351 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 + P338
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures****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

R-phrases according to EC directive 67/548/EEC

Hazard statements according to Regulation (EC) No. 1907/2006

Name	CAS-No. / EC-No.	Classification		Conc. [%]
		EC Directive 67/548/EEC	Regulation (EC) No 1272/2008	
MCPA, DMA salt	2039-46-5 218-014-2	Xn; R20/21/22 N; R50/53	Acute Tox. 4, H302, H312, H332 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	8.05
2,4-D, dimethylamine salt	2008-39-1 217-915-8	Xn; R22 Xi; R41 R43 N; R51/53	Acute Tox. 4, H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411	7.91
Mecoprop-P- dimethylamine salt	66423-09-4	Xn; R22 Xi; R41 N; R51/53	Acute Tox. 4, H302 Eye Dam. 1, H318 Aquatic Chronic 2, H411	4.77
Dicamba,	2300-66-5	Xi; R36	Eye Irrit. 2, H319	2.26

**LONGBOW SL 12X1L BOT ES**Version 8 / GB
102000007762

3/10

Revision Date: 27.01.2015

Print Date: 06.02.2015

dimethylamine salt	218-951-7	R52/53	Aquatic Chronic 3, H412	
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Further information

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

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures**

General advice	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Inhalation	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
Skin contact	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
Ingestion	Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

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
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4.3 Indication of any immediate medical attention and special treatment needed

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.
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SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media**

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable	High volume water jet



LONGBOW SL 12X1L BOT ES

Version 8 / GB
102000007762

4/10

Revision Date: 27.01.2015
Print Date: 06.02.2015

5.2 Special hazards arising from the substance or mixture Dangerous gases are evolved in the event of a fire.

5.3 Advice for firefighters

Special protective equipment for fire-fighters In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

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 diking area with sand or earth.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke.

6.2 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).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean floors and contaminated objects with plenty of water.

Additional advice Check also for any local site procedures.

6.4 Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe 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.

Hygiene measures When using, do not eat, drink or smoke. Remove soiled clothing immediately and clean thoroughly before using again. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

**LONGBOW SL 12X1L BOT ES**Version 8 / GB
102000007762

5/10

Revision Date: 27.01.2015

Print Date: 06.02.2015

Requirements for storage areas and containers	Store in original container and out of the reach of children, preferably in a locked storage area. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Protect from freezing.
Advice on common storage	Keep away from food, drink and animal feedingstuffs.
7.3 Specific end uses	Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
MCPA	94-74-6	0.1 mg/m ³ (SK-SEN)		OES BCS*
2,4-D	94-75-7	10 mg/m ³ (TWA)	12 2011	EH40 WEL
2,4-D	94-75-7	20 mg/m ³ (STEL)	12 2011	EH40 WEL
2,4-D	94-75-7	0.1 mg/m ³ (SK-SEN)		OES BCS*
mecoprop-P [1] and its salts, (R)-2-(4-chloro-2-methylphenoxy)propionic acid	16484-77-8	5 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

8.2 Exposure controls

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.

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

Respiratory protection is not required under anticipated circumstances of exposure.

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 of 0,4 mm). Wash when contaminated and dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and 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 coveralls and Category 3 Type 6 suit.

If there is a risk of significant exposure, consider a higher protective

**LONGBOW SL 12X1L BOT ES**Version 8 / GB
102000007762

6/10

Revision Date: 27.01.2015
Print Date: 06.02.2015

type 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Form	Liquid
Colour	brown
Odour	amine-like
pH	9 - 10
Flash point	>110 °C
Density	ca. 1.07 g/cm ³ at 20 °C
Water solubility	completely soluble
Partition coefficient: n-octanol/water	MCPA: log Pow: 1.4 2,4-D dimethylamine salt: log Pow: 0.65 Mecoprop-P: log Pow: 0.02 Dicamba: log Pow: 0.55

9.2 Other information Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

Thermal decomposition Stable under normal conditions.

10.2 Chemical stability Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions No hazardous reactions when stored and handled according to prescribed instructions. Stable under recommended storage conditions.

10.4 Conditions to avoid Extremes of temperature and direct sunlight.

10.5 Incompatible materials Strong acids, Strong oxidizing agents, Store only in the original container.

10.6 Hazardous decomposition products No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

Acute oral toxicity LD50 > 2,000 mg/kg

Acute dermal toxicity LD50 > 2,000 mg/kg

Skin irritation No skin irritation (rabbit)

Eye irritation Irritating to eyes. (rabbit)

**LONGBOW SL 12X1L BOT ES**Version 8 / GB
102000007762

7/10

Revision Date: 27.01.2015
Print Date: 06.02.2015**Sensitisation** Non-sensitizing.**Assessment repeated dose toxicity**

MCPA did not cause specific target organ toxicity in experimental animal studies.
2,4-D dimethylamine salt did not cause specific target organ toxicity in experimental animal studies.
Mecoprop-P did not cause specific target organ toxicity in experimental animal studies.
Dicamba did not cause specific target organ toxicity in experimental animal studies.

Assessment Mutagenicity

MCPA was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
2,4-D dimethylamine salt was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Mecoprop-P was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.
Dicamba was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment Carcinogenicity

MCPA was not carcinogenic in lifetime feeding studies in rats and mice.
2,4-D was not carcinogenic in lifetime feeding studies in rats and mice.
Mecoprop-P caused an increased incidence of tumours in in the following organ(s): . The mechanism that triggers these tumours is not relevant to humans.
Dicamba was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment toxicity to reproduction

MCPA did not cause reproductive toxicity in a two-generation study in rats.
2,4-D did not cause reproductive toxicity in a two-generation study in rats.
Mecoprop-P did not cause reproductive toxicity in a two-generation study in rats.
Dicamba did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

MCPA caused developmental toxicity only at dose levels toxic to the dams.
2,4-D dimethylamine salt caused developmental toxicity only at dose levels toxic to the dams.
Mecoprop-P caused developmental toxicity only at dose levels toxic to the dams. Mecoprop-P caused a delayed foetal growth.
Dicamba did not cause developmental toxicity in rats and rabbits.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity to fish	LC50 (Fish) > 110 mg/l Exposure time: 96 h
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) > 110 mg/l Exposure time: 48 h
Toxicity to aquatic plants	EC50 (Lemna gibba (duckweed)) 68.9 mg/l EC50 (Algae) > 800 mg/l Growth rate; Exposure time: 72 h

12.2 Persistence and degradability

Biodegradability	MCPA: not rapidly biodegradable 2,4-D dimethylamine salt: not rapidly biodegradable Mecoprop-P:
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LONGBOW SL 12X1L BOT ES

Version 8 / GB
102000007762

8/10

Revision Date: 27.01.2015
Print Date: 06.02.2015

rapidly biodegradable
Dicamba:
not rapidly biodegradable

Koc MCPA: Koc: 50 - 60
2,4-D dimethylamine salt: Koc: 72 - 471
Mecoprop-P: Koc: 135 - 167
Dicamba: Koc: 5.1

12.3 Bioaccumulative potential

Bioaccumulation MCPA: Bioconcentration factor (BCF) 1
Does not bioaccumulate.
2,4-D dimethylamine salt: Bioconcentration factor (BCF) 0.1
Does not bioaccumulate.
Mecoprop-P: Bioconcentration factor (BCF) 3
Does not bioaccumulate.
Dicamba:
Does not bioaccumulate.

12.4 Mobility in soil

Mobility in soil MCPA: Mobile in soils
2,4-D dimethylamine salt: Moderately mobile in soils
Mecoprop-P: Mobile in soils
Dicamba: Highly mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment MCPA: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
2,4-D dimethylamine salt: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Mecoprop-P: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Dicamba: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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.



LONGBOW SL 12X1L BOT ES

Version 8 / GB
102000007762

9/10

Revision Date: 27.01.2015
Print Date: 06.02.2015

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.

Waste key for the unused product **020108** agrochemical waste containing dangerous substances

SECTION 14: TRANSPORT INFORMATION

According to ADN/ADR/UK 'Carriage' Regulations/RID/IMDG/IATA 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.

14.1 – 14.5 Not applicable.

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

UK and Northern Ireland Regulatory References

This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.

Transport

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No 1348)

Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No 2367)

Air Navigation Dangerous Goods Regulations 2002 (SI 2002 No 2786)

Supply and Use

Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716)

Chemical (Hazard Information and Packaging for Supply) (Northern Ireland) Regulations 2009

Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No 2677)

EH40 Occupational Exposure Limits - Table 1 List of approved workplace exposure limits

Control of Pesticide Regulations 1986

Dangerous Substances and Explosive Atmospheres Regulations 2002

Waste Treatment

Environmental Protection Act 1990, Part II

Environmental Protection (Duty of Care) Regulations 1991

The Waste Management Licensing Regulations 1994 (as amended)

Hazardous Waste Regulations 2005 (Replacing Special Waste Regulations 1996 as amended)

Landfill Directive



LONGBOW SL 12X1L BOT ES

Version 8 / GB
102000007762

10/10

Revision Date: 27.01.2015
Print Date: 06.02.2015

Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94)
Water Resources Act 1991
Anti-Pollution Works Regulations 1999

Further information

WHO-classification: III (Slightly hazardous)

15.2 Chemical Safety Assessment

A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION

Text of R-phrases mentioned in Section 3

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation 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.

Text of the hazard statements mentioned in Section 3

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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.

Reason for Revision: Safety Data Sheet according to Regulation (EU) No. 453/2010.

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