



BASTA SL150 1X15L BOT TW

Version 6 / EU
102000012341

1/11
Revision Date: 27.07.2016
Print Date: 16.08.2017

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

1.1 Product identifier

Trade name BASTA SL150 1X15L BOT TW
Product code (UVP) 06470025

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 AG
Kaiser-Wilhelm-Allee 1
51373 Leverkusen
Germany

Telefax +49(0)2173-38-7394

Responsible Department Substance Classification & Registration
+49(0)2173-38-3409 (during business hours only)
Email: BCS-SDS@bayer.com

1.4 Emergency telephone no.

Emergency telephone no. Global Incident Response Hotline (24h)
+1 (760) 476-3964 (Company 3E for Bayer AG, Crop Science Division)

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.

Reproductive toxicity: Category 1B
H360Fd May damage fertility. Suspected of damaging the unborn child.

Acute toxicity: Category 3
H311 Toxic in contact with skin.

Acute toxicity: Category 4
H302 Harmful if swallowed.

Specific target organ toxicity - repeated exposure: Category 2
H373 May cause damage to organs (Nervous system) through prolonged or repeated exposure if swallowed.

Serious eye damage: Category 1
H318 Causes serious eye damage.

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

2.2 Label elements

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



BASTA SL150 1X15L BOT TW

Version 6 / EU
102000012341

2/11
Revision Date: 27.07.2016
Print Date: 16.08.2017

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Glufosinate ammonium
- Alkylethersulfate, sodium salt



Signal word: Danger

Hazard statements

- H360Fd May damage fertility. Suspected of damaging the unborn child.
- H311 Toxic in contact with skin.
- H302 Harmful if swallowed.
- H373 May cause damage to organs (Nervous system) through prolonged or repeated exposure if swallowed.
- H318 Causes serious eye damage.
- H412 Harmful to aquatic life with long lasting effects.
- EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
Restricted to professional users.

Precautionary statements

- P201 Obtain special instructions before use.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor/ physician.
- P501 Dispose of contents/container in accordance with local regulation.

2.3 Other hazards

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical nature

Soluble concentrate (SL)
Glufosinate-ammonium 150 g/l

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Glufosinate ammonium	77182-82-2 278-636-5	Acute Tox. 4, H302 STOT RE 2, H373 Acute Tox. 4, H312 Acute Tox. 4, H332	13,5

**BASTA SL150 1X15L BOT TW**Version 6 / EU
1020000123413/11
Revision Date: 27.07.2016
Print Date: 16.08.2017

		Repr. 1B, H360Fd	
Alkylethersulfate, sodium salt	68891-38-3 500-234-8	Eye Dam. 1, H318 Skin Irrit. 2, H315 Aquatic Chronic 3, H412	> 25,00
1-Methoxy-2-propanol	107-98-2 203-539-1 01-2119457435-35-xxxx	Flam. Liq. 3, H226 STOT SE 3, H336	> 1,00 – < 15,00

Further information

Substances for which there are Community workplace exposure limits:
1-Methoxy-2-propanol (107-98-2)

For the full text of the H-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. Keep under medical supervision for at least 48 hours.
Inhalation	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
Skin contact	Wash off immediately with soap and plenty of water. Call a physician or poison control center immediately.
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. Call a physician or poison control center immediately.
Ingestion	Rinse mouth. Do NOT induce vomiting. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms Vomiting, Diarrhoea, Abdominal pain, Tremors, Hypotension, Muscular weakness, Unconsciousness, Coma, Convulsions, Respiratory failure, Nausea, Tachycardia

Symptoms may be delayed.

Symptoms and hazards refer to effects observed after intake of significant amounts of the active ingredient(s).

4.3 Indication of any immediate medical attention and special treatment needed

Risks Watch victim for at least 48 hours because of possible delayed signs of poisoning.



BASTA SL150 1X15L BOT TW

Version 6 / EU
102000012341

4/11
Revision Date: 27.07.2016
Print Date: 16.08.2017

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. Forced alkaline diuresis and hemodialysis may be considered. There is no specific antidote. In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. If not effective, phenobarbital may be used. Contraindication: atropine. Oxygen or artificial respiration if needed. Keep respiratory tract clear. ECG - monitoring (Electrocardiogram). EEG - monitoring (Electroencephalogram). Monitor: respiratory, cardiac and central nervous system. Keep under medical supervision for at least 48 hours.

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

5.2 Special hazards arising from the substance or mixture In the event of fire the following may be released: Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Sulphur oxides, Nitrogen oxides (NOx)

5.3 Advice for firefighters

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

Further information Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

6.2 Environmental precautions Do not allow to get into surface water, drains and ground water.

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). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

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.

**BASTA SL150 1X15L BOT TW**Version 6 / EU
1020000123415/11
Revision Date: 27.07.2016
Print Date: 16.08.2017**SECTION 7: HANDLING AND STORAGE****7.1 Precautions for safe handling**

Advice on safe handling Use only in area provided with appropriate exhaust ventilation. For personal protection see section 8.

Advice on protection against fire and explosion No special precautions required.

Hygiene measures Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Protect from freezing. Keep away from direct sunlight.

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

Suitable materials HDPE (high density polyethylene)

7.3 Specific end use(s) Refer to the label and/or leaflet.

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

Components	CAS-No.	Control parameters	Update	Basis
Glufosinate ammonium	77182-82-2	0,9 mg/m ³ (TWA)		OES BCS*
1-Methoxy-2-propanol	107-98-2	375 mg/m ³ /100 ppm (TWA)	12 2009	EU ELV
1-Methoxy-2-propanol	107-98-2	568 mg/m ³ /150 ppm (STEL)	12 2009	EU ELV
1-Methoxy-2-propanol	107-98-2	563 mg/m ³ /150 ppm (STEL)	2014	EU SCOELS
1-Methoxy-2-propanol	107-98-2	375 mg/m ³ /100 ppm (TWA)	2014	EU SCOELS

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

8.2 Exposure controls**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.

**BASTA SL150 1X15L BOT TW**Version 6 / EU
1020000123416/11
Revision Date: 27.07.2016
Print Date: 16.08.2017

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

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. 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.

Material	Nitrile rubber
Rate of permeability	> 480 min
Glove thickness	> 0,4 mm
Protective index	Class 6
Directive	Protective gloves complying with EN 374.

Eye protection

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent) and faceshield (conforming to EN166, Field of Use = 3 or equivalent).

Skin and body protection

Wear standard coveralls and Category 3 Type 4 suit. If there is a risk of significant exposure, consider a higher protective 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. 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.

General protective measures

If product is handled while not enclosed, and if contact may occur: Complete suit protecting against chemicals

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

Form	Liquid
Colour	blue to blue green
Odour	weakly pungent
pH	6,8 - 7,8 at 100 % (23 °C)
Flash point	ca.57 °C The product does not sustain combustion.
Auto-ignition temperature	405 °C
Density	ca. 1,11 g/cm ³ at 20 °C

**BASTA SL150 1X15L BOT TW**Version 6 / EU
1020000123417/11
Revision Date: 27.07.2016
Print Date: 16.08.2017

Water solubility	soluble
Partition coefficient: n-octanol/water	Glufosinate-ammonium: log Pow: -4,01 at pH 7 Alkylethersulfate, sodium salt: log Pow: 0,3
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive 92/69/EEC, A.14 / OECD 113
9.2 Other information	Further safety related physical-chemical data are not known.

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

Thermal decomposition > 200 °C, Heating rate: 10 K/min
Test conducted with a similar formulation.

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.

10.4 Conditions to avoid Extremes of temperature and direct sunlight.

10.5 Incompatible materials Bases

10.6 Hazardous decomposition products Ammonia

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

Acute oral toxicity LD50 (Rat) 1.730 mg/kg
Test conducted with a similar formulation.

Acute inhalation toxicity LC50 (Rat) 2,97 mg/l
Exposure time: 4 h
Determined in the form of a respirable aerosol.
During intended and foreseen applications, no respirable aerosol is formed.
Test conducted with a similar formulation.

Acute dermal toxicity LD50 (Rat) 593 mg/kg
Test conducted with a similar formulation.

Skin irritation Slight irritant effect - does not require labelling. (Rabbit)
Test conducted with a similar formulation.

Eye irritation Severe eye irritation. (Rabbit)
Test conducted with a similar formulation.

Sensitisation Non-sensitizing. (Guinea pig)
OECD Test Guideline 406, Buehler test

**BASTA SL150 1X15L BOT TW**Version 6 / EU
1020000123418/11
Revision Date: 27.07.2016
Print Date: 16.08.2017

Test conducted with a similar formulation.

Assessment repeated dose toxicity

Glufosinate-ammonium caused neurobehavioral effects and/or neuropathological changes in animal studies. Glufosinate-ammonium was well tolerated in rats and mice but less well tolerated in the dog in subchronic studies.

Alkylethersulfate, sodium salt did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Glufosinate-ammonium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Alkylethersulfate, sodium salt was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Glufosinate-ammonium was not carcinogenic in lifetime feeding studies in rats and mice.

Alkylethersulfate, sodium salt was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment toxicity to reproduction

Implantation loss occurred in a rat multigeneration study with Glufosinate-ammonium. There were no effects on male fertility.

Alkylethersulfate, sodium salt did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Glufosinate-ammonium caused developmental toxicity only at dose levels toxic to the dams.

Glufosinate-ammonium caused an increased incidence of post implantation losses.

Alkylethersulfate, sodium salt did not cause developmental toxicity in rats and rabbits.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity****Toxicity to fish**

LC50 (Oncorhynchus mykiss (rainbow trout)) 13,4 mg/l

Exposure time: 96 h

Test conducted with a similar formulation.

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) 17,8 mg/l

Exposure time: 48 h

Test conducted with a similar formulation.

Toxicity to aquatic plants

IC50 (Raphidocelis subcapitata (freshwater green alga)) 71,3 mg/l

Growth rate; Exposure time: 72 h

Test conducted with a similar formulation.

Toxicity to bacteria

NOEC (Desmodesmus subspicatus (green algae)) 0,93 mg/l

Exposure time: 72 h

Information refers to the main component.

EC50 (activated sludge) > 1.000 mg/l

Exposure time: 3 h

The value mentioned relates to the active ingredient glufosinate-ammonium.

12.2 Persistence and degradability**Biodegradability**

Glufosinate-ammonium:

Not rapidly biodegradable

**BASTA SL150 1X15L BOT TW**Version 6 / EU
1020000123419/11
Revision Date: 27.07.2016
Print Date: 16.08.2017Alkylethersulfate, sodium salt:
rapidly biodegradable**Koc** Glufosinate-ammonium: Koc: 2,3**12.3 Bioaccumulative potential****Bioaccumulation** Glufosinate-ammonium: Bioconcentration factor (BCF) < 1
Does not bioaccumulate.
Alkylethersulfate, sodium salt:
Does not bioaccumulate.**12.4 Mobility in soil****Mobility in soil** Glufosinate-ammonium: Highly mobile in soils
Alkylethersulfate, sodium salt: soluble in water**12.5 Results of PBT and vPvB assessment****PBT and vPvB assessment** Glufosinate-ammonium: 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).
Alkylethersulfate, sodium 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).**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.**Contaminated packaging** Not completely emptied packagings should be disposed of as hazardous waste.**Waste key for the unused product** **02 01 08*** agrochemical waste containing dangerous substances**SECTION 14: TRANSPORT INFORMATION****ADR/RID/ADN**

14.1 UN number	2902
14.2 Proper shipping name	PESTICIDE, LIQUID, TOXIC, N.O.S. (GLUFOSINATE-AMMONIUM SOLUTION)
14.3 Transport hazard class(es)	6.1
14.4 Packing group	III
14.5 Environm. Hazardous Mark	NO
Hazard no.	60
Tunnel Code	E



BASTA SL150 1X15L BOT TW

Version 6 / EU
102000012341

10/11
Revision Date: 27.07.2016
Print Date: 16.08.2017

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

IMDG

14.1 UN number	2902
14.2 Proper shipping name	PESTICIDE, LIQUID, TOXIC, N.O.S. (GLUFOSINATE-AMMONIUM SOLUTION)
14.3 Transport hazard class(es)	6.1
14.4 Packing group	III
14.5 Marine pollutant	NO
Segregation group according to 5.4.1.5.11.1	IMDG SEGREGATION GROUP 2 - AMMONIUM COMPOUNDS

IATA

14.1 UN number	2902
14.2 Proper shipping name	PESTICIDE, LIQUID, TOXIC, N.O.S. (GLUFOSINATE-AMMONIUM SOLUTION)
14.3 Transport hazard class(es)	6.1
14.4 Packing group	III
14.5 Environm. Hazardous Mark	NO

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 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

Further information

WHO-classification: II (Moderately hazardous)

15.2 Chemical Safety Assessment

A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION

Text of the hazard statements mentioned in Section 3

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

**BASTA SL150 1X15L BOT TW**Version 6 / EU
10200001234111/11
Revision Date: 27.07.2016
Print Date: 16.08.2017

H360Fd May damage fertility. Suspected of damaging the unborn child.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H412 Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE Acute toxicity estimate
 CAS-Nr. Chemical Abstracts Service number
 Conc. Concentration
 EC-No. European community number
 ECx Effective concentration to x %
 EINECS European inventory of existing commercial substances
 ELINCS European list of notified chemical substances
 EN European Standard
 EU European Union
 IATA International Air Transport Association
 IBC International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
 ICx Inhibition concentration to x %
 IMDG International Maritime Dangerous Goods
 LCx Lethal concentration to x %
 LDx Lethal dose to x %
 LOEC/LOEL Lowest observed effect concentration/level
 MARPOL MARPOL: International Convention for the prevention of marine pollution from ships
 N.O.S. Not otherwise specified
 NOEC/NOEL No observed effect concentration/level
 OECD Organization for Economic Co-operation and Development
 RID Regulations concerning the International Carriage of Dangerous Goods by Rail
 TWA Time weighted average
 UN United Nations
 WHO World health organisation

The information contained within this Safety Data Sheet is in accordance with the guidelines established by Regulation (EU) 1907/2006 and Regulation (EU) 2015/830 amending Regulation (EU) No 1907/2006 and any subsequent amendments. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

Reason for Revision: Safety Data Sheet according to Regulation (EU) No. 2015/830. Section 2: Hazards Identification. Section 3: Composition / Information on Ingredients. Section 8: Exposure Controls / Personal Protection. Section 16: Other Information.

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