



**BUCTRIL EC327,5 4X5L BOT UA**

Version 8 / EU  
102000011543

1/11  
Revision Date: 13.01.2017  
Print Date: 14.11.2017

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

**1.1 Product identifier**

**Trade name** BUCTRIL EC327,5 4X5L BOT UA  
**Product code (UVP)** 06419135

**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.**

Flammable liquids: Category 3  
H226 Flammable liquid and vapour.

Acute toxicity: Category 4  
H302 Harmful if swallowed.

Aspiration hazard: Category 1  
H304 May be fatal if swallowed and enters airways.

Skin irritation: Category 2  
H315 Causes skin irritation.

Skin sensitisation: Category 1  
H317 May cause an allergic skin reaction.

Eye irritation: Category 2  
H319 Causes serious eye irritation.

Acute toxicity: Category 4  
H332 Harmful if inhaled.

Reproductive toxicity: Category 2  
H361d Suspected of damaging the unborn child.



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Acute aquatic toxicity: Category 1  
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1  
H410 Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling according to German national legislation:

Hazard label for supply/use required.

#### Hazardous components which must be listed on the label:

- Bromoxynil
- Solvent Naphtha (petroleum), heavy aromatic



**Signal word:** Danger

#### Hazard statements

H226 Flammable liquid and vapour.  
H302 + H332 Harmful if swallowed or if inhaled  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H361d Suspected of damaging the unborn child.  
H410 Very toxic to aquatic life with long lasting effects.  
EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P243 Take precautionary measures against static discharge.  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
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.  
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.  
P501 Dispose of contents/container in accordance with local regulation.

### 2.3 Other hazards

No other hazards known.

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

#### Chemical nature

Emulsifiable concentrate (EC)  
Bromoxinil 225 g/l

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

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Bromoxynil octanoate	1689-99-2 216-885-3	Acute Tox. 3, H331 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Acute Tox. 4, H302 Repr. 2, H361d Skin Sens. 1, H317	31,70
Branched calcium dodecyl benzene sulfonate	68953-96-8 273-234-6	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411	> 1,00 – < 5,00
2-Methylpropan-1-ol	78-83-1 201-148-0	Flam. Liq. 3, H226 STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336	> 1,00 – < 5,00
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5 265-198-5 01-2119463583-34-xxxx	Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411	> 20,00

**Further information**

Bromoxynil octanoate	1689-99-2	M-Factor: 10 (acute), 10 (chronic)
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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**

<b>General advice</b>	Move out of dangerous area. Remove contaminated clothing immediately and dispose of safely. Place and transport victim in stable position (lying sideways).
<b>Inhalation</b>	Move the victim to fresh air and keep at rest. Call a physician or poison control center immediately.
<b>Skin contact</b>	Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. Call a physician or poison control center immediately.
<b>Eye contact</b>	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.
<b>Ingestion</b>	Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. Keep patient warm and at rest. Risk of product entering the lungs on vomiting after ingestion. Call a physician or poison control center immediately.



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**4.2 Most important symptoms and effects, both acute and delayed**

**Symptoms** Local: Sensitisation, The product causes irritation of eyes, skin and mucous membranes.  
Systemic: Tiredness, Thirst, Sweating, Anxiety, Hyperventilation, Tachycardia, Muscle rigidity, Hyperthermia

**4.3 Indication of any immediate medical attention and special treatment needed**

**Treatment** Local treatment: Initial treatment: symptomatic.  
Systemic treatment: Initial treatment: symptomatic. 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. In case of hyperthermia physical cooling is advisable; in case of muscle rigidity muscle relaxants and mechanical ventilation may support in counteracting hyperthermia. 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

**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 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.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

**Precautions** Avoid contact with spilled product or contaminated surfaces. Remove all sources of ignition. Use personal protective equipment.

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

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**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 contaminated floors and objects thoroughly, observing environmental regulations.

**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** Use only in area provided with appropriate exhaust ventilation.

**Advice on protection against fire and explosion** Keep away from heat and sources of ignition. Vapours may form explosive mixture with air. Take measures to prevent the build up of electrostatic charge. Use only explosion-proof equipment.

**Hygiene measures** Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. 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** Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Store in a place accessible by authorized persons only. Protect from frost. Keep away from direct sunlight.

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

**Suitable materials** Coex EVOH (1000L IBC)

**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
Bromoxynil octanoate	1689-99-2	0,21 mg/m <sup>3</sup> (SK-SEN)		OES BCS*

\*OES BCS: Internal Bayer AG, Crop Science Division "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** Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent.

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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).

**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.

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

<b>Form</b>	clear, Liquid
<b>Colour</b>	yellow to brown
<b>Odour</b>	aromatic
<b>pH</b>	4 - 5 at 1 % (23 °C) (deionized water)
<b>Flash point</b>	60 °C
<b>Ignition temperature</b>	430 °C
<b>Density</b>	ca. 1,03 g/cm <sup>3</sup> at 20 °C
<b>Water solubility</b>	miscible
<b>Partition coefficient: n-octanol/water</b>	Bromoxynil octanoate: log Pow: 5,4
<b>Surface tension</b>	31 mN/m at 20 °C



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<b>Oxidizing properties</b>	No oxidizing properties
<b>Explosivity</b>	Not explosive 92/69/EEC, A.14 / OECD 113
<b>9.2 Other information</b>	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.

**10.4 Conditions to avoid** Extremes of temperature and direct sunlight.  
Exposure to moisture.

**10.5 Incompatible materials** 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 (Rat) > 300 - 2.000 mg/kg

**Acute inhalation toxicity** LC50 (Rat) 2,82 mg/l  
Exposure time: 4 h  
No respiratory tract irritation

**Acute dermal toxicity** LD50 (Rat) > 2.000 mg/kg

**Skin irritation** Irritating to skin. (Rabbit)

**Eye irritation** Irritating to eyes. (Rabbit)

**Sensitisation** Sensitising (Guinea pig)  
OECD Test Guideline 406, Buehler test  
The value mentioned relates to the active ingredient bromoxynil octanoate.

**Assessment STOT Specific target organ toxicity – repeated exposure**

Bromoxynil octanoate caused specific target organ toxicity in experimental animal studies in the following organ(s): Liver. The observed effects do not appear to be relevant for humans.

**Assessment mutagenicity**

Bromoxynil octanoate was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

**Assessment carcinogenicity**

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Bromoxynil octanoate caused at high dose levels an increased incidence of tumours in the following organ(s): Liver. The mechanism of tumour formation is not considered to be relevant to man.

**Assessment toxicity to reproduction**

Bromoxynil octanoate did not cause reproductive toxicity in a two-generation study in rats.

**Assessment developmental toxicity**

Bromoxynil octanoate caused a delayed foetal growth, an increased incidence of non-specific malformations. Bromoxynil octanoate caused developmental toxicity only at dose levels toxic to the dams.

**Aspiration hazard**

|| May be fatal if swallowed and enters airways.

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

<b>Toxicity to fish</b>	LC50 (Oncorhynchus mykiss (rainbow trout)) 0,127 mg/l Exposure time: 96 h Test conducted with a similar formulation.
<b>Toxicity to aquatic invertebrates</b>	EC50 (Daphnia magna (Water flea)) 0,255 mg/l Exposure time: 48 h Test conducted with a similar formulation.
<b>Chronic toxicity to aquatic invertebrates</b>	NOEC (Daphnia magna (Water flea)): 0,32 mg/l Exposure time: 21 d
<b>Toxicity to aquatic plants</b>	EC50 (Raphidocelis subcapitata (freshwater green alga)) > 90 mg/l Growth rate; Exposure time: 96 h NOEC (Raphidocelis subcapitata (freshwater green alga)) 8,3 mg/l Growth rate; Exposure time: 96 h

**12.2 Persistence and degradability**

<b>Biodegradability</b>	Bromoxynil octanoate: Not rapidly biodegradable
<b>Koc</b>	Bromoxynil octanoate: Koc: 639

**12.3 Bioaccumulative potential**

<b>Bioaccumulation</b>	Bromoxynil octanoate: Bioconcentration factor (BCF) 230 Does not bioaccumulate.
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**12.4 Mobility in soil**

<b>Mobility in soil</b>	Bromoxynil octanoate: Slightly mobile in soils
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**12.5 Results of PBT and vPvB assessment**

<b>PBT and vPvB assessment</b>	Bromoxynil octanoate: 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).
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**12.6 Other adverse effects**

<b>Additional ecological</b>	No other effects to be mentioned.
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## information

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

<b>Product</b>	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.
<b>Contaminated packaging</b>	Not completely emptied packagings should be disposed of as hazardous waste.
<b>Waste key for the unused product</b>	<b>02 01 08*</b> agrochemical waste containing dangerous substances

**SECTION 14: TRANSPORT INFORMATION****ADR/RID/ADN**

14.1 UN number	<b>1993</b>
14.2 Proper shipping name	FLAMMABLE LIQUID, N.O.S. (BROMOXYNIL OCTANOATE, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC SOLUTION)
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	30
Tunnel Code	D/E
Special Provision	640E

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	<b>1993</b>
14.2 Proper shipping name	FLAMMABLE LIQUID, N.O.S. (BROMOXYNIL OCTANOATE, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC SOLUTION)
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Marine pollutant	YES

**IATA**

14.1 UN number	<b>1993</b>
14.2 Proper shipping name	FLAMMABLE LIQUID, N.O.S. (BROMOXYNIL OCTANOATE, SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC SOLUTION )
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environm. Hazardous Mark	NO

**14.6 Special precautions for user**



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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.

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**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.

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**SECTION 16: OTHER INFORMATION**

**Text of the hazard statements mentioned in Section 3**

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
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.

**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)



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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.

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