



Safety data sheet
according to the REACH Regulation (EC) 1907/2006 amended by
Regulation (EU) 2020/878

Printing date: 28.03.2024

Version number 3 (replaces version 2)

Revision: 12.12.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier**Trade name:** BONACA**Formulation:** Emulsifiable concentrate - EC**Active ingredient:** Fluroxypyr-meptyl**CAS Number:** Fluroxypyr-meptyl 81406-37-3 (Fluroxypyr 69377-81-7)**EINECS Number:** Fluroxypyr-meptyl 279-752-9**UFI:** YUD5-UHX0-S30D-03VE**1.2 Relevant identified uses of the substance or mixture and uses advised against****Sector of Use** SU1 Agriculture, forestry, fishery**Product category** PC27 Plant protection products**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

GALENIKA-FITOFARMACIJA a.d.

Batajnicki drum bb

11080 Belgrade

tel: + 381 (11) 3072-301

fax: + 381 (11) 3072 310

e-mail: office@fitofarmacija.rs

1.4 Emergency telephone number:

Emergency Tel. No. 112

Poison Control Center

Ksaverska cesta 2, POB 291, 10000 Zagreb, Croatia

(+385) 01 2348 342

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture**Classification according to Regulation (EC) No 1272/2008**

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

STOT SE 3 H336 May cause drowsiness or dizziness.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS05

GHS07

GHS08

GHS09

Signal word Danger**Hazard-determining components of labelling:**

Hydrocarbons, C10, aromatics, <1% naphthalene

Hazard statements

H314 Causes severe skin burns and eye damage.

H336 May cause drowsiness or dizziness.

(Contd. on page 2)

Safety data sheet
according to the REACH Regulation (EC) 1907/2006 amended by
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Printing date: 28.03.2024

Version number 3 (replaces version 2)

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Trade name: BONACA

(Contd. of page 1)

*H304 May be fatal if swallowed and enters airways.**H411 Toxic to aquatic life with long lasting effects.***Precautionary statements***P102 Keep out of reach of children.**P260 Do not breathe dust/fume/gas/mist/vapours/spray.**P273 Avoid release to the environment.**P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.**P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.**P331 Do NOT induce vomiting.**P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].**P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***Additional information:***EUH071 Corrosive to the respiratory tract.**EUH401 To avoid risks to human health and the environment, comply with the instructions for use.***Standard phrases for safety precautions***SPI Do not contaminate water with the product or its container. Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads.***2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substance Not applicable.**3.2 Mixtures**

Dangerous components:		
<i>EC number: 918-811-1</i>	<i>Hydrocarbons, C10, aromatics, <1% naphthalene Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336</i>	<i>30-50%</i>
<i>CAS: 81406-37-3 EINECS: 279-752-9 Index number: 607-272-00-5</i>	<i>Fluoroxypyr-meptyl Aquatic Acute 1, H400; Aquatic Chronic 1, H410</i>	<i>36%</i>
<i>CAS: 2687-94-7 ELINCS: 403-700-8 Index number: 613-098-00-0</i>	<i>1-octyl-2-pyrrolidone Skin Corr. 1B, H314; Aquatic Chronic 2, H411</i>	<i>2.5-10%</i>
<i>EC number: 932-231-6</i>	<i>Benzenesulphonic acid, mono C10-13-linear alkyl derivates, calcium salt Eye Dam. 1, H318; Skin Irrit. 2, H315; Aquatic Chronic 3, H412</i>	<i>< 3%</i>
<i>CAS: 66467-20-7</i>	<i>Ethoxylated oleil amine, dodecylbenzenesulphonic salt Eye Dam. 1, H318; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Skin Irrit. 2, H315 ATE: LD50 oral: 500 mg/kg</i>	<i>< 2.5%</i>

(Contd. on page 3)

Safety data sheet
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Version number 3 (replaces version 2)

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Trade name: BONACA

(Contd. of page 2)

CAS: 78-83-1 EINECS: 201-148-0 Index number: 603-108-00-1	iso-butanol Flam. Liq. 3, H226; Eye Dam. 1, H318; Skin Irrit. 2, H315; STOT SE 3, H335-H336	< 2%
CAS: 91-20-3 EINECS: 202-049-5 Index number: 601-052-00-2	Naphthalene Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302	< 1%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Have the product container, label or Safety Data Sheet with you when calling a poison control center or physician.

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact:

Remove contaminated clothing and shoes. Wash affected area with plenty of water. Seek medical attention if necessary. Wash contaminated clothing before next use.

Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes.

After eye contact:

Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

After swallowing: Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Because of possibility of lung aspiration, coughing, choking, rapid breathing, and chemical pneumonitis can occur. Signs of systemic toxicity are possible, e.g. headache, confusion, and in severe cases, coordination disorders, arrhythmia, liver and kidney damage, coma, respiratory arrest.

4.3 Indication of any immediate medical attention and special treatment needed

There is no specific antidote available. Treat symptomatically.

Basic life functions must be ensured and maintained. Treatment is symptomatic and supportive. The Poison Control Center should propose the specific antidote.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x)

Hydrogen fluoride (HF)

Hydrogen chloride (HCl)

Carbon monoxide (CO)

Carbon dioxide (CO₂)

5.3 Advice for firefighters

Protective equipment: Wear fully protective suit and self-contained respiratory protective device.

(Contd. on page 4)

Safety data sheet
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Version number 3 (replaces version 2)

Revision: 12.12.2023

Trade name: BONACA

(Contd. of page 3)

Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

Avoid formation of dust.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Store in cool, dry place in tightly closed receptacles.

Avoid contact with skin, eyes and clothing.

Information about fire - and explosion protection: No special measures required.**7.2 Conditions for safe storage, including any incompatibilities****Storage:**

Store in a dry and cool place in original packaging.

Protect from water and humidity.

Requirements to be met by storerooms and receptacles: Store in a cool and dry, in the original packaging.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Keep container tightly sealed.**7.3 Specific end use(s)** Bonaca is plant protection product - herbicide.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters**Ingredients with limit values that require monitoring at the workplace:****CAS: 91-20-3 Naphthalene**IOELV Long-term value: 30 mg/m³, 10 ppm**Additional information:** The lists valid during the making were used as basis.**8.2 Exposure controls****Appropriate engineering controls** No further data; see section 7.

(Contd. on page 5)

Safety data sheet
 according to the REACH Regulation (EC) 1907/2006 amended by
 Regulation (EU) 2020/878

Printing date: 28.03.2024

Version number 3 (replaces version 2)

Revision: 12.12.2023

Trade name: BONACA

(Contd. of page 4)

Individual protection measures, such as personal protective equipment
General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection:


Suitable respiratory protective device recommended.

Hand protection


Protective gloves

Protective gloves (EN 374).

Eye/face protection


Tightly sealed goggles

Body protection: Use protective suit.

Protective suit Use chemical resistant protective suit.

Environmental exposure controls No special precautions required.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information

Colour:	Yellow
Odour:	
Odour threshold:	Not determined.
Melting point/freezing point:	Not determined.
Boiling point or initial boiling point and boiling range	Not determined.
Flammability	Not determined.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	> 60 °C
Auto-ignition temperature:	Undetermined.
Decomposition temperature:	Not determined.
pH at 20 °C	5.7-6.7
Viscosity at 20 °C:	9.2 mm ² /s
Kinematic viscosity	Not applicable.
Dynamic:	Not applicable.
Solubility	
water:	Dispersible.

(Contd. on page 6)

Safety data sheet
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 Regulation (EU) 2020/878

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Version number 3 (replaces version 2)

Revision: 12.12.2023

Trade name: BONACA

(Contd. of page 5)

Partition coefficient n-octanol/water (log value) *Not determined.***Vapour pressure:** *Not applicable.***Density and/or relative density****Density at 20 °C:** *0.99-1.01 g/cm³***Relative density** *Not determined.***Vapour density** *Not applicable.***9.2 Other information****Form:** *Liquid***Ignition temperature:** *Product is not selfigniting.***Explosive properties:** *Product does not present an explosion hazard.***Crystallisation temperature / range:****Oxidising properties** *Not oxidising.***Evaporation rate** *Not applicable.***9.2.1. Information with regard to physical hazard classes****Explosives** *Not applicable.***Flammable gases** *Not applicable.***Aerosols** *Not applicable.***Oxidising gases** *Not applicable.***Gases under pressure** *Not applicable.***Flammable liquids** *Not applicable.***Flammable solids** *Not applicable.***Self-reactive substances and mixtures** *Not applicable.***Pyrophoric liquids** *Not applicable.***Pyrophoric solids** *Not applicable.***Self-heating substances and mixtures** *Not applicable.***Substances and mixtures, which emit flammable gases****in contact with water** *Not applicable.***Oxidising liquids** *Not applicable.***Oxidising solids** *Not applicable.***Organic peroxides** *Not applicable.***Corrosive to metals** *Not applicable.***Desensitised explosives** *Not applicable.*

SECTION 10: Stability and reactivity

10.1 Reactivity *No hazardous reactions when stored and handled according to instructions.***10.2 Chemical stability** *Stable under normal handling and storage conditions.***Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.***10.3 Possibility of hazardous reactions** *No dangerous reactions known.***10.4 Conditions to avoid** *No further relevant information available.***10.5 Incompatible materials:** *No further relevant information available.***10.6 Hazardous decomposition products:***Hydrogen chloride (HCl)**Nitrogen oxides**Hydrogen fluoride*

(Contd. on page 7)

Safety data sheet
 according to the REACH Regulation (EC) 1907/2006 amended by
 Regulation (EU) 2020/878

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Version number 3 (replaces version 2)

Revision: 12.12.2023

Trade name: BONACA

(Contd. of page 6)

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

CAS: 81406-37-3 Fluoroxypyr-meptyl

Oral	LD50	> 2000 mg/kg (Rat)
Dermal	LD50	> 2000 mg/kg (Rat)
Inhalative	LC50/4 h	> 1 mg/l (Rat)

Skin corrosion/irritation:

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation:

Causes serious eye damage.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

CAS: 81406-37-3 Fluoroxypyr-meptyl

EC50	0.208 mg/l (algae)
	> 0.183 mg/l (Daphnia magna)
LC50	> 0.225 mg/l (Oncorhynchus mykiss)

12.2 Persistence and degradability Fluoroxypyr-meptyl is non-persistent.

12.3 Bioaccumulative potential Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

12.4 Mobility in soil Fluoroxypyr-meptyl is relatively immobile in soil (Koc > 5000)

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties For information on endocrine disrupting properties see section 11.

(Contd. on page 8)

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 Regulation (EU) 2020/878

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Version number 3 (replaces version 2)

Revision: 12.12.2023

Trade name: BONACA

(Contd. of page 7)

12.7 Other adverse effects
Ecotoxicological effects:
CAS: 81406-37-3 Fluoroxypyr-meptyl

Oral LD50 > 2000 mg/kg (Bobwhite quail)

Remark:
Toxicity to honey bees:
CAS: 81406-37-3 Fluoroxypyr-meptyl

 Oral LD50 > 100 µg/bee (*Apis mellifera*) (48 h)

 Dermal LD50 > 100 µg/bee (*Apis mellifera*) (48 h)

Additional ecological information:
General notes:

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Very toxic for aquatic organisms

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:
Recommendation: Disposal must be made according to national official regulations.

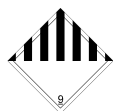
SECTION 14: Transport information

14.1 UN number or ID number
ADR/RID/ADN, IMDG, IATA

UN3082

14.2 UN proper shipping name
ADR/RID/ADN, IMDG, IATA

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
 N.O.S. (Hydrocarbons, C10, aromatics, <1% naphthalene,
 Fluoroxypyr-meptyl)

14.3 Transport hazard class(es)
ADR/RID/ADN, IMDG

Class
Label

9 Miscellaneous dangerous substances and articles.

9

(Contd. on page 9)

Safety data sheet
 according to the REACH Regulation (EC) 1907/2006 amended by
 Regulation (EU) 2020/878

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Version number 3 (replaces version 2)

Revision: 12.12.2023

Trade name: BONACA

(Contd. of page 8)

IATA**Class**

9 Miscellaneous dangerous substances and articles.

Label

9

14.4 Packing group

III

ADR/RID/ADN, IMDG, IATA**14.5 Environmental hazards:**

Product contains environmentally hazardous substances:
 Fluoroxypyr-meptyl, Hydrocarbons, C10, aromatics, <1%
 naphthalene

Special marking (IATA):

Symbol (fish and tree)

14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

Hazard identification number (Kemler code):

90

EMS Number:

F-A,S-F

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

Transport/Additional information:**ADR/RID/ADN**

Exempted from ADR + LQ (UN3077 + 3082 Class 9)
 according to extra provision ADR SV375 as of 01.01.15.
 "375. These substances when carried in single or
 combination packaging containing net quantity per single
 or inner packaging of 5 lit or less for liquids having a nett
 mass per single or inner packaging of 5KG or less for
 solids, are not subject to any other provisions."
 UN "Model Regulation": UN 3082 ENVIRONMENTALLY
 HAZARDOUS SUBSTANCE,
 LIQUID, N.O.S. (HYDROCARBONS, C10, AROMATICS,
 <1% NAPHTHALENE, FLUOROXYPYR-MEPTYL), 9, III
 UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
 LIQUID, N.O.S. (HYDROCARBONS, C10, AROMATICS,
 <1% NAPHTHALENE, FLUOROXYPYR-MEPTYL), 9, III

UN "Model Regulation":

SECTION 15: Regulatory information

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

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

(Contd. on page 10)

Safety data sheet
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Regulation (EU) 2020/878

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Version number 3 (replaces version 2)

Revision: 12.12.2023

Trade name: BONACA

(Contd. of page 9)

15.2 Chemical safety assessment: *A Chemical Safety Assessment has not been carried out.***SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Hazard phrases:*H226 Flammable liquid and vapour.**H302 Harmful if swallowed.**H304 May be fatal if swallowed and enters airways.**H314 Causes severe skin burns and eye damage.**H315 Causes skin irritation.**H318 Causes serious eye damage.**H335 May cause respiratory irritation.**H336 May cause drowsiness or dizziness.**H351 Suspected of causing cancer.**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.***Date of previous version:** 11.12.2022**Version number of previous version:** 2**Abbreviations and acronyms:***ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)**IMDG: International Maritime Code for Dangerous Goods**IATA: International Air Transport Association**GHS: Globally Harmonised System**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 3: Flammable liquids – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Skin Corr. 1B: Skin corrosion/irritation – Category 1B**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Carc. 2: Carcinogenicity – Category 2**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**Asp. Tox. 1: Aspiration hazard – Category 1**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2**Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3*