

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date: 04.03.2019

Version number 1

Revision: 04.03.2019

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

**1.1 Product identifier****Trade name:** POLUX**Formulation:** Emulsifiable concentrate - EC**Active ingredient:** Deltamethrin**Chemical family:** Pyrethroid**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**Application of the substance / the mixture** Insecticides**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Galenika-Fitofarmacija AD

Batajnicki drum bb

11080 Zemun, Belgrade

tel: + 381 (11) 3072-301

fax: + 381 (11) 3072 310

e-mail: office@fitofarmacija.rs

**1.4 Emergency telephone number:**

Poison Control Center Military Medical Academy

Crnotravska 17, Belgrade, Serbia

tel: + 381 (11) 3608-440, 00-24h

**SECTION 2: Hazards identification**

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

Flam. Liq. 3	H226	Flammable liquid and vapour.
Acute Tox. 4	H302	Harmful if swallowed.
Acute Tox. 4	H332	Harmful if inhaled.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Dam. 1	H318	Causes serious eye damage.
STOT SE 3	H335-H336	May cause respiratory irritation. May cause drowsiness or dizziness.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.
Aquatic Acute 1	H400	Very toxic to aquatic life.
Aquatic Chronic 1	H410	Very 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**

GHS02 GHS05 GHS07 GHS08 GHS09

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

Solvent naphtha (petroleum), light arom.

Deltamethrin

**Hazard statements**

H226 Flammable liquid and vapour.

H302+H332 Harmful if swallowed or if inhaled.

H315 Causes skin irritation.

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H318 Causes serious eye damage.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P240 Ground/bond container and receiving equipment.

P280 Wear protective gloves / 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/regional/national/international regulations.

**Additional information:**

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

**Standard phrases for safety precautions**

SP1 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 Chemical characterisation: Mixtures

**Dangerous components:**

EC number: 918-668-5	Solvent naphtha (petroleum), light arom. Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335-H336	50-100%
CAS: 68953-96-8 EINECS: 273-234-6	Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts Eye Dam. 1, H318; Aquatic Chronic 2, H411; Acute Tox. 4, H312; Skin Irrit. 2, H315	2.5-10%
CAS: 52918-63-5 EINECS: 258-256-6 Index number: 607-319-00-X	Deltamethrin Acute Tox. 3, H301; Acute Tox. 3, H331; Aquatic Acute 1, H400 (M=1000000); Aquatic Chronic 1, H410 (M=1000000)	2.5-10%
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	≤2.5%
CAS: 128-37-0 EINECS: 204-881-4	Butylated hydroxytoluene Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≤2.5%

**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:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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**After inhalation:**

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

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

**After eye contact:** Rinse opened eyes for several minutes under running water.

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

**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:**

Water spray

Alcohol resistant foam

Carbon dioxide

Dry chemical extinguishing agent.

**For safety reasons unsuitable extinguishing agents:** Water with full jet

**5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

**5.3 Advice for firefighters**

**Protective equipment:** Mouth respiratory protective device.

**Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Cool endangered receptacles with water spray.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

**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).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**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.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Avoid inhalation and contact with skin and eyes. Wear protective clothing and protective equipment for eyes and face. Do not eat, drink or smoke. After handling wash hands and face with soap and water. Wash contaminated clothing.

**Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**7.2 Conditions for safe storage, including any incompatibilities****Storage:**

Keep in a cool, dry place in tightly closed original containers. Keep away from foodstuffs, beverages and feed. Keep away from children.

Keep away from direct sunlight.

Protect from freezing.

**Requirements to be met by storerooms and receptacles:** Store in a cool and dry.

**Information about storage in one common storage facility:**

Store in a dry place, away from direct sunlight, heat and incompatible materials.

**Further information about storage conditions:** Keep container tightly sealed.

**7.3 Specific end use(s)** Use this product only for plant protection.

**SECTION 8: Exposure controls/personal protection**

**Additional information about design of technical facilities:** No further data; see item 7.

**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

**8.2 Exposure controls**

**Personal protective equipment:** When use follow the general hygienic measures of protection.

**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.

**Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Protection of hands:**

Protective gloves

**Material of gloves** The selection of suitable gloves in accordance to EN 374.

**Eye protection:**

Tightly sealed goggles

In accordance to standard EN 166.

**Body protection:** Use protective suit.

**Protective suit** Use chemical resistant protective suit.

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**Environmental exposure controls** Do not allow to get into the environment.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### General Information

##### Appearance:

<b>Form:</b>	Liquid
<b>Colour:</b>	Yellow
<b>Odour:</b>	Aromatic
<b>Odour threshold:</b>	Not determined.
<b>pH-value at 20 °C:</b>	4-6 (CIPAC MT 75)
<b>Melting point/freezing point:</b>	Not determined.
<b>Initial boiling point and boiling range:</b>	Not determined.
<b>Flash point:</b>	48 °C (CIPAC MT 12)
<b>Flammability (solid, gas):</b>	No data available.
<b>Ignition temperature:</b>	> 450 °C (The data refer to solvent)
<b>Decomposition temperature:</b>	Not determined.
<b>Auto-ignition temperature:</b>	Product is not selfigniting.
<b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
<b>Explosion limits:</b>	
<b>Lower:</b>	0.7 Vol % (The data refer to solvent)
<b>Upper:</b>	7.5 Vol % (The data refer to solvent)
<b>Oxidising properties</b>	Data lacking.
<b>Vapour pressure at 20 °C:</b>	5 hPa
<b>Density at 20 °C:</b>	0.89 g/cm <sup>3</sup>
<b>Relative density at 20 °C</b>	0.88-0.91 g/cm <sup>3</sup>
<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	miscible
<b>Partition coefficient: n-octanol/water:</b>	Not determined.
<b>Viscosity:</b>	Data lacking.
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Solvent content:</b>	
<b>VOC (EC)</b>	90.76 %
<b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

**10.2 Chemical stability** Stable under normal handling and storage conditions.

#### **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known.

**10.4 Conditions to avoid** Source of ignition, heat, fire, high humidity, sparks.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

Harmful if swallowed or if inhaled.

##### LD/LC50 values relevant for classification:

**CAS: 52918-63-5 Deltamethrin**

Oral	LD50	87 mg/kg (Rat)
Dermal	LD50	> 2000 mg/kg (Rat)
Inhalative	LC50/4 h	0.6 mg/l (Rat)

##### Primary irritant effect:

##### Skin corrosion/irritation:

Causes skin irritation.

##### 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 respiratory irritation. 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.

### SECTION 12: Ecological information

#### 12.1 Toxicity

##### Aquatic toxicity:

**CAS: 52918-63-5 Deltamethrin**

EC50	0.00056 mg/l (Daphnia magna)
LC50	0.00026 mg/l (Oncorhynchus mykiss)

**12.2 Persistence and degradability** No further relevant information available.

##### Behaviour in environmental systems:

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

##### Ecotoxicological effects:

**Remark:** Very toxic for fish

##### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Other adverse effects** No further relevant information available.

### 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.

Disposal must be made according to official local regulation.

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**Uncleaned packaging:****Recommendation:** Disposal must be made according to national official regulations.**SECTION 14: Transport information****14.1 UN-Number****ADR/RID/ADN, IMDG, IATA**

UN1993

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

1993 FLAMMABLE LIQUID, N.O.S. (Deltamethrin, Solvent naphtha (petroleum), light arom.), ENVIRONMENTALLY HAZARDOUS

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

3 Flammable liquids.

**Label**

3

**14.4 Packing group****ADR/RID/ADN, IMDG, IATA**

III

**14.5 Environmental hazards:**

Not applicable.

**14.6 Special precautions for user**

Warning: Flammable liquids.

**Danger code (Kemler):**

30

**EMS Number:**

F-E,S-E

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

Not applicable.

**Transport/Additional information:****ADR/RID/ADN****Tunnel restriction code**

D/E

**UN "Model Regulation":**

UN 1993 FLAMMABLE LIQUID, N.O.S. (DELTAMETHRIN, SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM.), 3, III, ENVIRONMENTALLY HAZARDOUS

**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****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.

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*H301 Toxic if swallowed.**H304 May be fatal if swallowed and enters airways.**H312 Harmful in contact with skin.**H315 Causes skin irritation.**H318 Causes serious eye damage.**H331 Toxic if inhaled.**H335 May cause respiratory irritation.**H336 May cause drowsiness or dizziness.**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:***ADR: Accord européen sur le transport 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)**VOC: Volatile Organic Compounds (USA, EU)**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. 3: Acute toxicity – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**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***\* Data compared to the previous version altered.**