

SAFETY DATA SHEET

Made in accordance with Regulations 1272/2008/EC

1st section: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier: **SZUKU mosquito- and tick repellent spray**

1.2. Relevant identified uses of the substance or mixture and uses advised against:
biocidal product, product-type PT19; repellents and attractants (pest control), Finished product to repellent hip mosquitoes (eg. Aedes and Culex species) and tick (eg. common tick – Ixodes ricinus) in outdoor.
For general (non-professional) use, over 12 years of age

Contraindicated use: if it's different from the above

1.3. Details of the supplier of the safety data sheet:

METATOX Pesttíciid Gyártó és Forgalmazó Kft.

H-5520 Szeghalom, Kossuth u. 8.

Telephone: +(36) 66 371 168; +36 30 5757 140

Contact details of the person responsible for the safety data sheet: info@metatox.hu



1.4. Emergency telephone number: Health Toxicology Information Service:
workhours: +36 1 476-6464 non-stop: +36 (80) 20 11 99

2nd section: Hazards identification

2.1. Classification of the substance or mixture: The product is a mixture. According to the manufacturer, and to the relevant EU regulations, and to the Regulation (EC) No. 1272/2008 (CLP) and its amendments, **if the product is used for its intended purpose, it is unlikely that there will be an adverse effect on health and the environment.** May irritating to eyes.

Physico-chemical hazard, environmental hazard: Eye irritation Category 2. Marking-required

2.2. Label elements: Pictogram: GHS07, GHS02 **Signal word:** EYE IRRITATION, FLAMMABLE

 	<p>Hazard statements: H226 Flammable liquid and vapour. H319 Causes serious eye irritation</p> <p>Precautionary statements: P102 Keep out of reach of children. P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention.</p>
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Biocidal active substance contents: 23% N,N-diethyl-m-toulamid (DEET)

The product contain bittering agent (denatonium-benzoate), which helps prevent the accidental human consumption.

Note: When the packaging filling weight not more than 125 ml, the H- and P-phrases are not required on the label from 01.06.2015.

2.3. Other hazards: If the product is used for its intended purpose, it is unlikely that there will be an adverse effect on health and the environment. May irritating to eyes.

The empty bottle can be treated as communal waste; see also section 13

¹Classification, Labelling and Packaging: 1272/2008/EC Regulation and its Amendments.

² Higher number means less danger.

3Aquatic Acute 1(H400) and Aquatic Chronic 1 (H410), in case of environmental hazard, should be used H410 phrases on the label.

3thsection: Composition/information on ingredients

3.1. Chemical character: mixture

Dangerous component	Concentration	Hazard class, category, H-sentences
N,N-diethyl-m-toluamid(DEET) * CAS-number: 134-62-3 EC-number: 205-149-7	23,0%	H412; H319; H315; H302

* IUPAC name: N,N-diethyl-m-toluamide

The manufacturer does not indicate the presence of other dangerous components.

Other unlabelled components are not considered to be hazardous under current legislation.

or their concentration in the preparation does not reach the level above which their presence is present should be taken into account in the classification.

The above hazard classes, categories, H-phrases refer to the pure component, the hazard classification according to the preparation is given in Section 2.

For full text of H-Statements and Abbreviations see Section 16.

4thsection: First aid measures

4.1. Description of first aid measures

General information: The professionalism and speed of first aid can greatly reduce the occurrence and severity of the symptoms. In a person with unconscious or spastic fluid, not drink or not vomiting!

Inhalation: not relevant.

Skin contact: Wash affected area with soap and plenty of water. If irritation occurs, seek medical attention. Remove contaminated clothing.

Eye contact: Immediately flush eyes with plenty of water for at least 10 minutes, while the eyelids are opened and the eyeball is moved. If there is a contact lens, remove it and resume rinsing. In the event of a complaint or symptom persistence consult a specialist.

Ingestion: If swallowed, seek medical advice IMMEDIATELY and show the package, label or safety data sheet of the product to the physician. Not vomiting.

4.2. Most important symptoms and effects, both acute and delayed: The product's active substance is N,N-diethyl-toluamid. If the product is used for its intended purpose, it is unlikely that there will be an adverse effect on health and the environment. May irritating to eyes.

4.3. Indication of any immediate medical attention and special treatment needed:

In case of suspected poisoning, seek medical advice immediately and show the physician the label.

5thsection: Firefighting measures

The product is FLAMMABLE!

Do not use near open flames and do not smoke!

5.1. Extinguishing media: standard extinguishing agents: carbon dioxide, extinguishing powder, water spray, extinguishing foam. It is advisable to determine on the basis of combustible substances in the environment.

Unsuitable extinguishing media: strong water jet.

5.2. Special hazards arising from the substance or mixture: high temperatures can cause toxic and irritant gases, vapors, eg carbon monoxide, carbon dioxide and oxides of nitrogen during combustion and decomposition.

5.3. Advice for firefighters: full protective equipment and breathing apparatus independent of the environment if there is a risk of exposure to vapors or combustion products.

6th section: Accidental release measures

Prevent contamination of living water and soil!

6.1. Personal precautions, protective equipment and emergency procedures

Collect spilled, dispersed product mechanically with suitable material (eg dry sand, shavings, etc.), avoid further exposure to the product. Spilled product should be stored in a safe container in accordance with regulatory requirements and in appropriate containers and in a safe place.

For non-emergency persons: see above.

Emergency services: Personal protective equipment is required. Remediation can only be performed by trained personnel.

6.2. Environmental precautions

The spilled product should not enter drains, water bodies or soil. Waste disposal and disposal should be in accordance with local regulations. If the product reaches the sewer or water bodies, the competent authorities must be informed.

6.3. Methods and material for containment and cleaning up

The scattered product need to mechanically sweep, sweeping free of dust, and place in a suitable container and dispose of it. Disposal in accordance with local regulations. Wash contaminated area with water or water containing detergent. Avoid to get the cleaning-water into the sewer.

6.4. Reference to other sections: see Section 8. and 13.

7th section: Handling and storage

The product can only use to repellent againts hip mosquitoes (eg. Aedes and Culex species) and ticks (eg. common tick - Ixides) for outdoor, as specified in the instruction for use. May be used by persons over 12 years of age. Do not eat, drink or smoke while using. After treatment, wash hands with soap and plenty of water.

7.1. Precautions for safe handling: Avoid exposure to the product: Do not expose to skin, eyes, mouth and open wounds. Do not use on damaged or sunburned skin. If your skin shows an allergic symptoms (redness, rash), it should be removed immediately with soapy water. Do not use it indoors. After treatment, or coming back from the open areas, the treated skin wash with soapy water.

7.2. Conditions for safe storage, including any incompatibilities

Store in its original, closed packaging in dry, cool, max. 35°C, in a sheltered place can be used for 2 years from production time.

(The production time and expiration date must be indicated on the individual packaging!)

Keep out of reach of children, keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s): biocidal product, mosquito- and tick repellent gel, for general and professional users. Users should always read the user's manual and follow the instructions for safe handling and use.

8th section: Exposure controls and personal protection

Read the instructions before use.

Based on active substance content III. is considered to be a free-flowing marketable of distribution.

It does not require any special measures while observing the instructions for use.

8.1. Control parameters

Occupational exposure limits: permissible in the workplace air: not determined for the components of the product.

8.2. Exposure controls

Technical measure: not required.

Hygiene measures:

- Do not eat, drink or smoke during treatment.
- After treatment, wash thoroughly with warm, soapy water.
- Avoid exposure of the product with eyes, nose, mouth and open wounds.

Personal protective equipment: not required

Environmental exposure controls:

Not require any special measures while observing the instructions for use.

Do not dispose of this product and its container into sewers, water bodies.

The above applies to professionally performed activities and intended use conditions, under normal circumstances. If work is done under different circumstances or exceptional circumstances, it is recommended that you decide on additional tasks and personal protective equipment by involving an expert.

9thsection: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Appearance:	colorless liquid at normal temperature
Color:	colorless
Taste:	no data
Odor:	characteristic
Odor threshold:	no data
pH-data on 20°C:	no data
Volume weight:	no data
Melting/boiling point:	eg. 100°C
Decomposition temperature:	no data
Flash point:	no data
Auto-ignition temperature:	no data
Flammability (gas, solid):	flammable
Vapor pressure:	no data
Evaporation rate:	no data
Water solubility:	no data
Partition coefficient:	no data
Explosive properties:	when used in accordance with the instructions, there is no risk of explosion
Explosion limits:	no data
Oxidizing properties:	no data

9.2. Other information: no data

10th section: Stability and reactivity

Avoid open flames and do not smoking.

10.1. Reactivity: The product is stable under normal conditions.

10.2. Chemical stability: under normal conditions (normal temperature and pressure conditions and the storage conditions specified in Section 7) are stable.

10.3. Possibility of hazardous reactions: not known.

10.4. Conditions to avoid: high temperature, heat, heating, frost, moisture.

10.5. Incompatible materials: strong acids, alkalis, oxidants.

10.6. Hazardous decomposition products: not under normal conditions.

11th section: Toxicological information

11.1. Information on toxicological effects: toxicological studies have not been performed with the product. The assessment was made only on the basis of the toxicological data, classifications and concentrations of the ingredients according to the CLP regulation.

Acute toxicity: based on estimated ATE_{mix} values, the product should not be classified as acute toxicity (oral, dermal, inhalative).

Acute toxicity LD₅₀/ttkg (rat/rabbit)
oral 2000mg/ttkg
dermal >5000mg/ttkg

Skin corrosion/skin irritation: the composition of the product and the available data are not corrosive and do not irritate the skin.

Serious eye damage / eye irritation: may cause serious eye damage and may irritate the eyes due to the composition of the product and the available data.

Respiratory-, and skin sensitization: no data

Germ cell mutagenicity: no data

Carcinogenicity: Based on available information, the product should not be classified as carcinogenic.

Reproductive toxicity: no data

STOT SE: no data

STOT RE: no data

Aspiration toxicity: no data

11.2. Expected effects of product exposure: Product containing DEET. The content of the active ingredient in the products is so low that it is toxic dose for a person with normal body weight is more than one kilogram.

May cause irritation to eyes, nose, mouth and open wound.

12th section: Ecological information

12.1. Toxicity: When used the product in accordance with instruction, the toxic effect of the product on the environment is not significant.

Based on its physico-chemical properties, DEET does not present any risk to the atmosphere.

12.2. Persistence and degradability: The product is stable under normal conditions (normal temperature and pressure).

The DEET active ingredient in a water environment is stable at acidic, alkaline and neutral pH, and is light-stable in sterile distilled water. It is very mobile in the soil, but the load on the soil is not expected based on its intended use.

12.3. Bioaccumulative potential: The product is stable under normal conditions (normal temperature and pressure). The only ecotoxicologically significant ingredient is DEET, so the product is ecotoxicologically characterized by information on the active substance. DEET and its metabolites are biodegradable, with only minor negative effects on soil microbes. Bioaccumulation (accumulation) is not expected.

In addition to the active ingredient, denatonium benzoate (Bitrex) could be of ecotoxicological importance, the ingredient is present in the product only in very low amounts and therefore does not affect its ecotoxicological properties.

The other ingredients of the product are not ecotoxicologically significant.

12.4. Mobility in soil: no data

12.5. Result of PBT and vPvB assessment: no data

12.6. Other adverse effects: Avoid getting residues and packing material into the soil, water bodies, sewers. Primary and secondary exposure to the environment should be minimized by considering and taking all available and appropriate risk mitigation measures.

13th section: Disposal considerations

13.1. Waste treatment methods:

The empty bottle can be treated as communal waste.

It is forbidden to bring the product into running water, sewer or soil.

Spilled product must be soaked with suitable material (eg dry sand, chips, etc.)

For the treatment of residues and waste of the preparation, see 225/2015. (VIII.7.),

and for disposal of packaging waste is provided for in Government Decree 442/2012 (XII. 29.) prevail.

Care should be taken to clean up any spillage that may have spilled. Not for the original purpose product be used as hazardous waste and treated as hazardous waste and receiving hazardous waste

location - eg to a waste disposal site.

The classification of the product waste is given in 72/2013. (VIII. 27.) VM.Waste product classification is 72/2013. (VIII.27.) VM.

Classification of waste product (Waste key / EWC code):

07 04 organic plant protection products (excluding 02 01 08 and 02 01 09), wood preservatives (excluding 03 02) and waste from the manufacture, presentation, distribution and use of biocides

07 04 13* solid waste containing dangerous substances

It is forbidden to release product, residue, waste into sewers, water bodies.

14th section: Transport information

This product is **not a hazardous product** under the terms of the International Carriage of Dangerous Goods by **ADR / RID, IMDG and IATA**.

The product can be transported in original, sealed packaging, separated from other products, protected from sunlight, heat radiation.

Product spillage should be prevented during transport.

15th section: Regulatory information

15.1. Safety, health and environmental regulations / legislation for the mixture

The active substance of the product is DEET, an active substance approved under Directive 2009/92 / EC to the Product Type of 19.

The product does not contain any substance which is listed by REACH XVII. .

The product does not contain any SVHC material and does not contain any candidate list material by SVHC.

The product does not contain any listed material by REACH XIV.

Relevant Community legislation

Biocides Regulations: 528/2012 / EU and its amendments.

REACH Regulation 1907/2006 and its amendments.

CLP Regulation (EC) No 1272/2008 and its amendments.

Relevant national legislation

Biocidal: 38/2003. (VII.7.) ESzCsM-FVM-KvVM regulation on the conditions for the production and marketing of biocidal products; 316/2013. (VIII.28.) Government Decree on Certain Rules for the Authorization and Marketing of Biocidal Products;

Labour safety: az 1993. évi XCIII. Act on Occupational Safety; 25/2000. (IX.30.) EüM-SzCsM Decree on the Chemical Safety of Workplaces; 33/1998. (VI.24.) NM regulation on the medical examination and opinion on the professional, personal hygiene and fitness for work; 3/2002. (II.8.) SzCsM-EüM regulation on the minimum level of work safety requirements for workplaces;

Chemical safety: 2000. évi XXV. act on Chemical Safety and its amendments, detailed rules for certain procedures and activities related to dangerous substances and dangerous preparations, 44/2000. (XII.27.) EüM regulation and its amendments;

Environmental Protection: 1995. évi LIII. Act on the General Rules for the Protection of the Environment; 2012. évi CLXXXV. law on waste; 225/2015. (VIII.7.) Government Decree on detailed rules for certain activities related to hazardous waste; 72/2013. (VIII.27.) VM Regulation on the Waste List;

Fire protection: 1996. évi XXXI. law on fire protection, technical rescue and fire brigade; az 54/2014. (XII.5.) BM regulation on the National Fire Protection Code.

15.2. Chemical safety assessment: no chemical safety assessment has been carried out.

16th section: Other information

The safety data sheet is not intended to guarantee certain characteristics of the product, does not replace the details product specification.

The information, data and recommendations contained in the Safety Data Sheet are based on our best knowledge, which are known and accurate and at the time of issue and are designed to help the safe use of the product.

Store, treat and use the product only as described in the instructions for use.

It is the responsibility of the user to take all necessary precautions when using the product.
This data sheet does not imply any legal obligation or liability for misuse, or improper use, as the conditions of use (handling, application, storage, disposal, etc.) fall outside our control.

Use the product according to the instructions for use!

Do not use the product for children under 12 years of age.

Avoid contact with eyes, nose, mouth and open wounds. Do not use it damaged or sun burned on skin. Those with skin sensitization (redness, rash) may cause it wash with plenty of soap and water!

Do not use it indoors. After the danger of hitting, or coming out of the open, the treated skin wash with soapy water.

The product can damage synthetic and leather materials, plastic, watch glass, and painted, varnished surfaces.

Store away from food, out of reach of children.

Full text of all H-phrases and abbreviations in section 3:

Abbreviations of Hazard Classes: (abbreviated numbers mean the class within the class, larger numbers represent a lower risk):

Acute Tox.: acute toxicity; oral: orally; dermal: through the skin; inhal.: inhalation; Repr.: reproductive toxicity; STOT RE: target organ toxicity, repeated exposure; Skin Irrit.: skin irritation; Eye Dam.: serious eye damage;. Aquatic Acute: dangerous for the aquatic environment, acute danger; Aquatic Chronic: it poses a chronic danger to the aquatic environment.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

ATP Adaption to Technical Progress

BCF Bioconcentration factor

CAS Chemical Abstract Service

DNEL DERIVED NO EFFECT LEVEL: származtatott hatásmentes szint

IATA International Air Transport Association,

ICAO International Civil Aviation Organization Technical Instruction for the Safe Transport of Dangerous Goods by Air,

IMDG International Maritime Dangerous Goods Code

PBT persistent, bioaccumulative and toxic

RID Technical Instructions for the Safety of International Regulations for the International Carriage of Dangerous Goods by Rail

vPvB: very persistent, very bioaccumulative

Sheet History: This data sheet is based on manufacturer data and overwrites previous versions.

The purpose of this amendment is to comply with Regulation (EU) No 2016/1179.

Revised in accordance with CLP: Regulation (EC) No 1272/2008.

The product's packaging sizes and merchantability:

General public use, for retail distribution	For professionals
50 ml	-

Pay attention to safety when using biocides!
Always read the label and instructions before use!

To avoid risks to human health and to the environment, must be observed the instructions for use!

Carefully read the information on the label and the instructions for safe use before each use!

The safety data sheets of the products are publicly available and can be downloaded free of charge from our website!