

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

### 1.1. Product identifier

Trade name: LUCKY TOP BLUE  
UFI: WUYE-F0EA-H00T-A17E

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: air freshener.  
Uses advised against: not determined.

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

Manufacturer: Dr. MARCUS International Sp. z o.o. Sp. k.  
Address: Aleja Wojska Polskiego 2C, 62-800 Kalisz, PL  
Telephone/fax: + 48 62 760 07 00 / +48 62 760 07 59  
E-mail address for a competent person responsible for SDS: drmarcus@dr-marcus.com

### 1.4. Emergency telephone number

112 (general emergency telephone number)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Skin Irrit. 2 H315, Skin Sens. 1 H317, Eye Irrit. 2 H319, Aquatic Chronic 3 H412**

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

Hazard pictograms and signal words



Hazardous components placed on the label

Contains: citronello; linalool; linalyl acetate; d-limonene; citral; geraniol; geranyl acetate; 2-(4-tert-butylbenzyl) propionaldehyde; reaction mass of 3,5-dimethylcyclohex-3-ene-1-carbaldehyde and 2,4-dimethylcyclohex-3-ene-1-carbaldehyde; 3-p-cumenyl-2-methylpropionaldehyde; delta-damascone; 2-(2,2,7,7-tetramethyltricyclo[6.2.1.0((1,6))undec-5 and 4-en-5-yl)propan-1-ol; 1-(5,5-dimethyl-1-cyclohexen-1-yl)pent-4-en-1-one.

Hazard statements

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P273 Avoid release to the environment.  
P302+P352 IF ON SKIN: Wash with plenty of water and soap.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P501 Dispose of contents/container to properly labelled waste containers according to national law.

#### Additional information

None.

### 2.3. Other hazards

Product does not contain components, which meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable.

### 3.2. Mixtures

CAS number: 106-22-9 EC number: 203-375-0 Index number: — Registration number: 01-2119453995-23-XXXX	<b>citronellol</b> Skin Irrit. 2 H315, Skin Sens. 1B H317, Eye Irrit. 2 H319	C < 3 %
CAS number: 60-12-8 EC number: 200-456-2 Index number: — Registration number: 01-2119963921-31-XXXX	<b>2-phenylethan-1-ol</b> Acute Tox. 4 H302, Eye Irrit. 2 H319	C < 2,5 %
CAS number: 78-70-6 EC number: 201-134-4 Index number: 603-235-00-2 Registration number: 01-2119474016-42-XXXX	<b>linalool</b> Skin Irrit. 2 H315, Skin Sens. 1B H317, Eye Irrit. 2 H319	C < 1,15 %
CAS number: 90622-58-5 EC number: 292-460-6 Index number: — Registration number: 01-2119456810-40-XXXX	<b>alkanes, C11-15-iso-</b> Asp. Tox. 1 H304 EUH066 <sup>1)</sup>	C < 1,15 %
CAS number: 115-95-7 EC number: 204-116-4 Index number: — Registration number: 01-2119454789-19-XXXX	<b>linalyl acetate</b> Skin Irrit. 2 H315, Skin Sens. 1B H317, Eye Irrit. 2 H319	C < 1,15 %
CAS number: 5989-27-5 EC number: 227-813-5 Index number: 601-096-00-2 Registration number: 01-2119529223-47-XXXX	<b>d-limonene</b> Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1B H317, Aquatic Acute 1 H400 (M=1), Aquatic Chronic 3 H412	C < 1 %

CAS number: 5392-40-5 EC number: 226-394-6 Index number: 605-019-00-3 Registration number: 01-2119462829-23-XXXX	<b>citral</b> Skin Irrit. 2 H315, Skin Sens. 1B H317, Eye Irrit. 2 H319	C < 0,6 %
CAS number: 106-24-1 EC number: 203-377-1 Index number: 603-241-00-5 Registration number: 01-2119552430-49-XXXX	<b>geraniol</b> Skin Irrit. 2 H315, Skin Sens. 1B H317, Eye Dam. 1 H318	C < 0,6 %
CAS number: 105-87-3 EC number: 203-341-5 Index number: — Registration number: 01-2119973480-35-XXXX	<b>geranyl acetate</b> Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 3 H412	C < 0,6 %
CAS number: 80-54-6 EC number: 201-289-8 Index number: 605-041-00-3 Registration number: 01-2119907954-30-XXXX	<b>2-(4-tert-butylbenzyl) propionaldehyde</b> Acute Tox. 4 H302, Skin Irrit. 2 H315, Skin Sens. 1B H317, Repr. 1B H360Fd, Aquatic Chronic 3 H412	C < 0,3 %
CAS number: — EC number: 943-728-2 Index number: — Registration number: 01-2119982384-28-XXXX	<b>reaction mass of 3,5-dimethylcyclohex-3-ene-1-carbaldehyde and 2,4-dimethylcyclohex-3-ene-1-carbaldehyde</b> Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411	C < 0,3 %
CAS number: 81782-77-6 EC number: 279-815-0 Index number: — Registration number: 01-2119983528-21-XXXX	<b>4-methyl-3-decen-5-ol</b> Aquatic Acute 1 H400 (M=1), Aquatic Chronic 2 H411	C < 0,3 %
CAS number: 103-95-7 EC number: 203-161-7 Index number: — Registration number: 01-2119970582-32-XXXX	<b>3-p-cumenyl-2-methylpropionaldehyde</b> Skin Irrit. 2 H315, Skin Sens. 1B H317, Aquatic Chronic 3 H412	C < 0,25 %
CAS number: — EC number: 916-328-0 Index number: — Registration number: 01-2120794630-50-XXXX	<b>reaction mass of allyl (2-methylbutoxy)acetate and allyl (3-methylbutoxy)acetate</b> Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 2 H330, Aquatic Acute 1 H400 (M=1)	C < 0,25 %
CAS number: 71048-82-3 EC number: 275-156-8 Index number: — Registration number: 01-2119535122-53-XXXX	<b>delta-damascone</b> Acute Tox. 4 H302, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Acute 1 H400 (M=1), Aquatic Chronic 1 H410 (M=1)	C < 0,25 %
CAS number: 1001252-30-7 EC number: 482-030-8 Index number: — Registration number: —	<b>2-(2,2,7,7-tetremethyltricyclo[6.2.1.0((1,6)]undec-5 and 4-en-5-yl)propan-1-ol</b> Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 (M=1), Aquatic Chronic 1 H410 (M=1)	C < 0,25 %

CAS number: 56973-85-4 EC number: 260-486-7 Index number: — Registration number: 01-2120735847-42-XXXX	<b>1-(5,5-dimethyl-1-cyclohexen-1-yl)pent-4-en-1-one</b> Skin Sens. 1B H317, Aquatic Chronic 2 H411	C < 0,25 %
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<sup>1)</sup> Additional hazard statement.

Full text of each H phrase is given in section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Contact with skin

Take off contaminated clothing. Wash the exposed parts of the skin thoroughly with water and soap. Consult a doctor if disturbing symptoms appear.

#### Contact with eyes

Protect non-irritated eye, remove contact lenses. Rinse contaminated eyes thoroughly with water for 10 - 15 minutes. Avoid powerful water stream – risk of cornea damage. Consult an ophthalmologist if disturbing symptoms appear.

#### Ingestion

Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a doctor, show the packaging or label.

#### After inhalation

Remove the victim to fresh air, keep warm and at rest. Consult a doctor if disturbing symptoms appear.

### 4.2. Most important symptoms and effects, both acute and delayed

#### Contact with skin

The product may cause redness, burning sensation, irritation, allergic reaction.

#### Contact with eyes

The product may cause burning sensation, irritation, conjunctival redness.

#### Ingestion

May cause nausea, abdominal pains.

#### After inhalation

High concentration of vapours and mists may cause headaches, dizziness.

#### Effects of exposure

There are no known significant effects or critical hazards with the correct use of the product.

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

Physician makes a decision regarding further medical treatment after thorough examination of the injured. Symptomatic treatment.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media: adapt the extinguishing media to surrounding materials.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

### 5.2. Special hazards arising from the substance or mixture

During the fire may produce harmful gases containing e.g. carbon monoxides, other hazardous unidentified products of thermal decomposition. Do not inhale combustion products, they can be dangerous for human health.

### 5.3. Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. Cool down the containers that are endangered by fire with a water spray from a safe distance. Collect used extinguishing media.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Ensure that only the trained personnel removes the effects of the accident. In case of large spills, isolate the exposed area. Use personal protective equipment.

### 6.2. Environmental precautions

Do not allow the product to get into the sewage system, surface waters and soil. In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

### 6.3. Methods and material for containment and cleaning up

Collect the product mechanically and place it in labelled waste containers and transfer for disposal.

### 6.4. Reference to other sections

Appropriate conduct with waste product – see section 13. Personal protective equipment – see section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Do not eat, drink and smoke during the work. Before break and after work wash hands carefully. Use personal protective equipment. Avoid eyes and skin contamination. Keep the unused containers tightly closed.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in properly labeled, sealed packages in a dry, cool and well-ventilated place. Keep away from incompatible materials (see subsection 10.5). Keep away from, foodstuffs and animal feed. Recommended storage temperature: 5 - 30 °C.

### 7.3. Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational Exposure Limit Values

Legal Basis: Commission Directive 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, 2019/1831/EU.

The product does not contain components subject to exposure controls in the workplace.

#### Recommended control procedures

Procedures for monitoring concentrations of hazardous components in the air and procedures for monitoring air purity in the workplace should be applied - if available and justified at a given position - in accordance with the relevant national or European Standards, taking into account the conditions at the site of exposure and the appropriate measurement methods adapted to the working conditions. The mode, type and frequency of tests and measurements should meet the requirements of the appropriate laws.

## DNEL and PNEC

citronellol [CAS 106-22-9]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	161,6 mg/m <sup>3</sup>	47,8 mg/m <sup>3</sup>
inhalation	long-term local	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
inhalation	short-term local	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>
oral	long-term systemic	—	13,8 mg/kg bw/day
skin	long-term systemic	327,4 mg/kg bw/day	196,4 mg/kg bw/day
skin	short-term local	2950 µg/cm <sup>2</sup>	2950 µg/cm <sup>2</sup>

citronellol [CAS 106-22-9]	
PNEC	Value
marine water	0 mg/l
freshwater	0,002 mg/l
soil	0,004 mg/kg dry weight
freshwater sediment	0,026 mg/kg dry weight
marine water sediment	0,003 mg/kg dry weight
sewage treatment plant	580 mg/l
freshwater (intermittent release)	0,024 mg/l

2-phenylethan-1-ol [CAS 60-12-8]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	17,7 mg/m <sup>3</sup>	59,9 mg/m <sup>3</sup>
skin	long-term systemic	12,7 mg/kg bw/day	21,2 mg/kg bw/day
oral	long-term systemic	—	5,1 mg/kg bw/day
oral	short-term systemic	—	5,1 mg/kg bw/day

2-phenylethan-1-ol [CAS 60-12-8]	
PNEC	Value
marine water	0,021 mg/l
freshwater	0,215 mg/l
soil	0,164 mg/kg dry weight
freshwater sediment	1,454 mg/kg dry weight
marine water sediment	0,145 mg/kg dry weight
sewage treatment plant	10 mg/l

linalool [CAS 78-70-6]			
Exposure route	Exposure scheme	DNEL	
		worker	consumer
inhalation	long-term systemic	24,58 mg/m <sup>3</sup>	4,33 mg/m <sup>3</sup>
oral	long-term systemic	—	2,49 mg/kg bw/day
skin	long-term systemic	3,5 mg/kg bw/day	1,25 mg/kg bw/day
skin	long-term local	3 mg/cm <sup>2</sup>	1,5 mg/cm <sup>2</sup>
skin	short-term local	3 mg/cm <sup>2</sup>	1,5 mg/cm <sup>2</sup>

  

linalool [CAS 78-70-6]	
PNEC	Value
marine water	0,02 mg/l
freshwater	0,2 mg/l
soil	0,327 mg/kg dry weight
freshwater sediment	2,22 mg/kg dry weight
marine water sediment	0,222 mg/kg dry weight
sewage treatment plant	10 mg/l
secondary poisoning	7,8 mg/kg food
freshwater (intermittent release)	2 mg/l

## 8.2. Exposure controls

### Industrial hygiene

Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink and smoke during the work. Before break and after work wash hands carefully. Ensure adequate general and/or local ventilation at the workplace.

### Individual protection measures

The necessity to use and the selection of appropriate personal protective equipment should take into account the type of risk posed by the product, working conditions and the way of handling the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards. The employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.

### Hand protection

In case of a prolonged or repeated contact with the product, use protective gloves (EN 374) if a risk assessment indicates this is necessary. Select the material for the gloves individually at the workplace.

The glove material has to be impermeable and resistant to the product. The choice of material for protective gloves should be made taking into account the breakthrough times, permeation rate and degradation. Moreover, the selection of the appropriate gloves does not only depend on the material, but also on other quality characteristics and varies from manufacturer to manufacturer. The exact breakthrough time has to be obtained from the glove manufacturer and it must be observed.

### Body protection

Use skin protection measures adequate to the existing thermal, chemical or mechanical hazards.

### Eye protection

If there is a risk of eye contamination, use safety glasses in accordance with the EN 166 standard.

### Respiratory protection

Not required with adequate ventilation.

## Thermal hazards

Not applicable.

## Environmental exposure controls

Avoid release to the environment, do not empty into sewers.

## SECTION 9: Physical and chemical properties

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

Physical state:	solid
Colour:	acc. to the assortment
Odour:	characteristic, pleasant
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:	not applicable
Flash point:	not applicable
Auto-ignition temperature:	not applicable
Decomposition temperature:	not applicable
pH:	not determined
Kinematic viscosity:	not applicable
Solubility:	not soluble in water
Partition coefficient n-octanol/water (log value):	not applicable
Vapour pressure:	not applicable
Density and/or relative density:	not determined
Relative vapour density:	not applicable
Particle characteristics:	not determined

### 9.2. Other information

No additional tests.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is not very reactive. It does not go under hazardous polymerization. See also subsection 10.3-10.5.

### 10.2. Chemical stability

The product is stable under normal conditions of use and storage.

### 10.3. Possibility of hazardous reactions

Hazardous reactions are not known.

### 10.4. Conditions to avoid

Avoid sources of heat and direct sunlight.

### 10.5. Incompatible materials

Avoid contact with following materials: strong oxidants.

### 10.6. Hazardous decomposition products

Not known.



## SECTION 11: Toxicological information

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

#### Acute toxicity

citronellol [CAS 106-22-9]	
LD <sub>50</sub> (oral, rat)	3450 mg/kg
LD <sub>50</sub> (skin, rabbit)	2650 mg/kg

2-phenylethan-1-ol [CAS 60-12-8]	
LC <sub>50</sub> (inhalation, rat)	> 4,63 mg/l/4 h
LD <sub>50</sub> (oral, rat)	1603,3 mg/kg
LD <sub>50</sub> (skin, rabbit)	2535 mg/kg

linalool [CAS 78-70-6]	
LC <sub>50</sub> (inhalation, mouse)	> 20 mg/1h
LD <sub>50</sub> (oral, rat)	2790 mg/kg
LD <sub>50</sub> (skin, rat)	5610 mg/kg

geranyl acetate [CAS 105-87-3]	
LD <sub>50</sub> (oral, rat)	6330 mg/kg

2-(4-tert-butylbenzyl) propionaldehyde [CAS 80-54-6]	
LD <sub>50</sub> (oral, rat)	1390 mg/kg
LD <sub>50</sub> (skin, rat)	> 2000 mg/kg

Mixture	
ATE <sub>mix</sub> (ingestion)	15151.52 mg/kg
ATE <sub>mix</sub> (skin)	440000.00 mg/kg
ATE <sub>mix</sub> (inhalation, vapours)	> 20 mg/l
Based on available data, the classification criteria are not met.	

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

May cause an allergic skin reaction.

#### 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

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

## STOT-repeated exposure

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

## Aspiration hazard

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

## Information on likely routes of exposure

Exposure route: eye exposure, skin exposure, inhalation, ingestion. For more information on the impact of each possible route of exposure, see subsection 4.2.

## Symptoms related to the physical, chemical and toxicological characteristics

See subsection 4.2 of the SDS.

## Delayed and immediate effects as well as chronic effects from short and long-term exposure

See subsection 4.2 of the SDS.

## 11.2. Information on other hazards

### Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

### Other information

No data on other hazards.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>citronellol [CAS 106-22-9]</b>		
LC <sub>50</sub> (fish)	14,66 mg/l / 96 h / <i>Leuciscus idus</i>	method: DIN 38412
EC <sub>50</sub> (invertebrates)	17,48 mg/l / 48 h / <i>Daphnia magna</i>	method: —
EC <sub>50</sub> (algae)	2,4 mg/l / 72 h / <i>Scenedesmus subspicatus</i>	method: —
EC <sub>50</sub> (microorganisms)	> 10000 mg/l / 30 min / <i>Pseudomonas putida</i>	method: DIN 38412
<b>2-phenylethan-1-ol [CAS 60-12-8]</b>		
LC <sub>50</sub> (fish)	215-464 mg/l / 96 h / <i>Leuciscus idus</i>	method: DIN 38 412
EC <sub>50</sub> (invertebrates)	287,17 mg/l / 48 h / <i>Daphnia magna</i>	method: EU C.2
<b>linalool [CAS 78-70-6]</b>		
LC <sub>50</sub> (fish)	27,8 mg/l / 96 h / <i>Oncorhynchus mykiss</i>	method: OECD 203
EC <sub>50</sub> (invertebrates)	59 mg/l / 48 h / <i>Daphnia magna</i>	method: OECD 202
EC <sub>50</sub> (microorganisms)	> 100 mg/l / 3 h / —	method: OECD 209
<b>d-limonene [CAS 5989-27-5]</b>		
LC <sub>50</sub> (fish)	0,72 mg/l / 96 h / <i>Pimephales promelas</i>	method: OECD 203
NOEC (fish)	0,059 mg/l / 8 days / <i>Pimephales promelas</i>	method: OECD 212
EC <sub>50</sub> (invertebrates)	0,307 mg/l / 48 h / <i>Daphnia magna</i>	method: OECD 202 / EU C.2
NOEC (invertebrates)	0,08 mg/l / 21 days / <i>Daphnia magna</i>	method: OECD 211
EC <sub>50</sub> (algae)	0,214 mg/l / 72 h / <i>Pseudokirchneriella subcapitata</i>	method: OECD 201 / EU C.3
EC <sub>50</sub> (microorganisms)	209 mg/l / 3 h / —	method: OECD 209

geranyl acetate [CAS 105-87-3]		
EC <sub>50</sub> (invertebrates)	14,1 mg/l / 48 h / <i>Daphnia magna</i>	method: EU C.2
EC <sub>50</sub> (algae)	3,72 mg/l / 72 h / <i>Desmodesmus subspicatus</i>	method: OECD 201
2-(4-tert-butylbenzyl) propionaldehyde [CAS 80-54-6]		
LC <sub>50</sub> (fish)	2,04 mg/l / 96 h / <i>Danio rerio</i>	method: OECD 203
EC <sub>50</sub> (invertebrates)	10,7 mg/l / 48 h / <i>Daphnia magna</i>	method: —
EC <sub>50</sub> (algae)	29,155 mg/l / 72 h / <i>Desmodesmus subspicatus</i>	method: DIN 38412
NOEC (fish)	> 200 µg/l / 21 days / <i>Pimephales promelas</i>	method: OECD 229
4-methyl-3-decen-5-ol [CAS 81782-77-6]		
LC <sub>50</sub> (fish)	3 mg/l / 96 h / <i>Pimephales promelas</i>	method: OECD 203 / EPA OPPTS 850.1075
EC <sub>50</sub> (invertebrates)	0,4 mg/l / 48 h / <i>Daphnia magna</i>	method: OECD 202 / EPA OPPTS 850.1010
NOEC (invertebrates)	25 mg/l / 21 days / <i>Daphnia magna</i>	method: OECD 211 / EPA OPPTS 850.1300
EC <sub>50</sub> (algae)	3,6 mg/l / 72 h / <i>Pseudokirchneriella subcapitata</i>	method: OECD 201 / EU C.3 / EPA OPPTS 850.5400
NOEC (microorganisms)	100 mg/l / 28 days / —	method: —
Mixture		
Harmful to aquatic life with long lasting effects.		

## 12.2. Persistence and degradability

citronellol CAS 106-22-9	Easily biodegradable	80-90%/28 days	method: —
2-phenylethan-1-ol CAS 60-12-8	Biodegradable	106,3%/14 days	method: OECD 301B
linalool CAS 78-70-6	Easily biodegradable	64,2%/28 days	method: OECD 301 D
d-limonene CAS 5989-27-5	Easily biodegradable	71,4%/28 days	method: OECD 301 B
geranyl acetate CAS 105-87-3	Easily biodegradable	> 70%/28 days	method: —
2-(4-tert-butylbenzyl) propionaldehyde CAS 80-54-6	Easily biodegradable	80,7%/28 days	method: OECD 301B
4-methyl-3-decen-5-ol CAS 81782-77-6	Easily biodegradable	73%/28 days	method: OECD 301 F

## 12.3. Bioaccumulative potential

citronellol CAS 106-22-9	log Po/w = 3,41	method: EU A.8
	BCF = —	method: —

2-phenylethan-1-ol CAS 60-12-8	log Po/w = < 3	method: —
	BCF = —	method: —
linalool CAS 78-70-6	log Po/w = 2,9	method: —
	BCF = —	method: —
d-limonene CAS 5989-27-5	log Po/w = 4,38	method: OECD 117
	BCF = —	method: —
geranyl acetate CAS 105-87-3	log Po/w = 3,56	method: OECD 117
	BCF = —	method: —
2-(4-tert-butylbenzyl) propionaldehyde CAS 80-54-6	log Po/w = 4,2	method: —
	BCF = 274,3	method: —
4-methyl-3-decen-5-ol CAS 81782-77-6	log Po/w = 3,9	method: OECD 117 / EU A.8
	BCF = —	method: —

#### 12.4. Mobility in soil

The product is not mobile in soil. Mobility of components of the mixture in soil depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.

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

Product does not contain components, which meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

#### 12.6. Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

#### 12.7. Other adverse effects

The mixture is not classified as hazardous to the ozone layer. Consider other harmful effects of individual components of the mixture on the environment (eg, global warming potential).

## SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Recommendations for the product

The waste code should be given in the place of its formation. The waste product should be recovered or disposed of in authorized incineration plants or waste disposal / neutralization plants, in accordance with applicable regulations. Do not empty into drains.

##### Recommendations for used packaging

Reuse / recycle / eliminate empty containers in accordance with the local legislation. Only completely empty containers can be reused.

EU legal acts: directives of the European Parliament and of the Council: 2008/98 / EC as amended and 94/62 / EC as amended.

##### Recommended waste codes

The waste code should be assigned at the place of its formation.

## SECTION 14: Transport information

### 14.1. UN number or ID number

Not applicable, the product is not dangerous during transport.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

Not applicable.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

Not applicable.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

Additional data

Not applicable.

## SECTION 15: Regulatory information

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

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

IMDG Code International Maritime Dangerous Goods Code

IATA Dangerous Goods Regulations

1907/2006/EC REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (as amended).

1272/2008/EC REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (as amended).

2020/878/EU COMMISSION REGULATION of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals..

2000/39/EC COMMISSION DIRECTIVE of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

2006/15/EC COMMISSION DIRECTIVE of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

2009/161/EU COMMISSION DIRECTIVE of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

2017/164/EU COMMISSION DIRECTIVE of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

2019/1831/EU COMMISSION DIRECTIVE of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

2008/98/EC DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives (as amended).

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended

2016/425/EU REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

The components of the mixture are not included in Annex XVII of the REACH Regulation.

The components of the mixture are not included in Annex XIV of the REACH Regulation.

## 15.2. Chemical safety assessment

A Chemical Safety Assessment is not required for mixtures.

## SECTION 16: Other information

### Full text of H phrases mentioned in section 3

EUH066	Repeated exposure may cause skin dryness or cracking.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H360Fd	May damage fertility. 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.
H412	Harmful to aquatic life with long lasting effects.

### Clarification of abbreviations and acronyms

ADR	Agreement concerning the International Carriage of Dangerous Goods by Road.
DIN	German Institute for Standardization
DNEL	Derived No-Effect Level.
EC <sub>50</sub>	(median effective concentration) - statistically calculated concentration of a chemical substance in an environmental medium that can cause specific effects in 50% of the tested organisms of a given population under certain conditions.
EN	European standard
IATA	The International Air Transport Association.
IMDG	International Maritime Dangerous Goods Code.
LC <sub>50</sub>	Concentration of a substance that is lethal to 50 percent of the organisms in a toxicity test.
LD <sub>50</sub>	Dose of a substance that is lethal to 50 percent of the organisms in a toxicity test.
NOEC	The highest concentration that does not cause a statistically significant adverse effect in the exposed population, when compared with its appropriate control.
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, bioaccumulative and toxic substance.
PNEC	Predicted no-effect concentration.
RID	The Regulation concerning the International Carriage of Dangerous Goods by Rail.
UFI	Unique Formula Identifier
vPvB	Very persistent and very bioaccumulative substance.
Acute Tox. 2	Acute toxicity - category 2
Acute Tox. 4	Acute toxicity - category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute - category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic - category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic - category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic - category 3



# Safety Data Sheet

Date of issue: 14.07.2022

Date of update: —

Version: 1.0/EN

[Prepared in accordance with Regulation EC 1907/2006 (REACH), as amended]

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Asp. Tox. 1	Aspiration hazard - category 1
Eye Dam. 1	Serious eye damage - category 1
Eye Irrit. 2	Eye irritation - category 2
Flam. Liq. 3	Flammable liquid - category 3
Repr. 1B	Reproductive toxicity - category 1B
Skin Irrit. 2	Skin irritation - category 2
Skin Sens. 1	Skin sensitization - category 1
Skin Sens. 1A	Skin sensitization - category 1A
Skin Sens. 1B	Skin sensitization - category 1B

## Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

## Key literature references and sources of data

This SDS was prepared on the basis of sheets of the individual components, literature data, online databases (eg. ECHA, TOXNET, COSING) as well as our knowledge and experience, taking into account current legislation.

## Procedures used for the mixture classification according with Regulation 1272/2008/EC as amended

Skin Irrit. 2 H315	calculation method
Skin Sens. 1 H317	calculation method
Eye Irrit. 2 H319	calculation method
Aquatic Chronic 3 H412	calculation method

## Additional information

Changes: section: —  
SDS issued by: THETA Consulting Sp. z o.o.

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.