

Favn d.o.o., podjetje za predelavo zdravilnih zelišč Adamičeva 51, 1290 Grosuplje	<b>VARNOSTNI LIST</b>  <b>ETERIČNO OLJE CITRONELA BIO</b>	Stran: 1 /11
Izdelal:  Mihael Kovač uni. dipl. kem.	Datum zadnje revizije: 2.12.2019  Številka revizije: 1	Datum izdaje: 2.12.2019

### SECTION 01: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

- Trade name:  
JAVA CITRONELLA ID ORGANIC OIL
- Article number:  
B301
- CAS Number:  
8000-29-1
- EC Number:  
294-954-7
- No CAS EINECS:  
91771-61-8

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

Application of the substance / the preparation

Perfume ingredient  
Cosmetic ingredient  
Flavouring agent  
Only for industrial use

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

Manufacturer/Supplier:

FAVN, d.o.o., Adamičeva 51, SI-1290 Grosuplje, Tel.: 01 43 63 188,  
Fax: 01 43 63 189, E-mail: info@favn.si

#### 1.4 Emergency telephone number:

01 43 63 188

### SECTION 02: Hazards identification

#### 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008



GHS05

Eye Dam. 1 - H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 - H315 Causes skin irritation.  
Skin Sens. 1 - H317 May cause an allergic skin reaction.



GHS09

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

#### 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms



GHS05

GHS07

GHS09

- Signal word

Danger

- Hazard statements

H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H315 Causes skin irritation.

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- H411 Toxic to aquatic life with long lasting effects.
- Precautionary statements
    - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
    - P264 Wash thoroughly after handling.
    - P272 Contaminated work clothing should not be allowed out of the workplace.
    - P273 Avoid release to the environment.
    - P302+P352 IF ON SKIN: Wash with plenty of water.
    - P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.

### 2.3 Other hazards

- Results of PBT and vPvB assessment
- PBT:  
Not applicable.
- vPvB:  
Not applicable.

## SECTION 03: Composition/information on ingredients

### 3.1 Chemical characterization: Substances

- | CAS No.   | Description                   |
|-----------|-------------------------------|
| 8000-29-1 | Cymbopogon winterianus Jowitt |
|           | • Identification number(s)    |
|           | • EC number:<br>294-954-7     |

- Dangerous components:

CAS Number		%%
106-23-0	<b>Citronellal</b> EC number: 203-376-6 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	20,001-50,00
106-24-1	<b>Geraniol</b> ⚠ Eye Dam. 1 - H318; ⚠ Skin Irrit. 2 - H315, Skin Sens. 1B - H317	20,001-50,00
106-22-9	<b>dl-Citronellol</b> EC number: 203-375-0 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	10,001-20,00
105-87-3	<b>Geranyl acetate</b> EC number: 203-341-5 ⚠ Skin Irrit. 2 - H315, Skin Sens. 1B - H317; Aquatic Chronic 3 - H412	5,001-10,00
150-84-5	<b>citronellyl acetate</b> EC number: 205-775-0 ⚠ Skin Irrit. 2 - H315; ⚠ Aquatic Chronic 2 - H411	5,001-10,00
5989-27-5	<b>d-limonene</b> ⚠ Asp. Tox. 1 - H304; ⚠ Flam. Liq. 3 - H226; ⚠ Skin Irrit. 2 - H315, Skin Sens. 1B - H317; ⚠ Aquatic Acute 1 - H400; Aquatic Chronic 3 - H412	1,001- 5,00
5392-40-5	<b>Citral</b> EC number: 226-394-6 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 -	1,001- 5,00

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87-44-5	H319, Skin Sens. 1B - H317 <b>beta-Caryophyllene</b> EC number: 201-746-1 ⚠ Asp. Tox. 1 - H304; ⚠ Skin Sens. 1B - H317	1,001- 5,00
97-53-0	<b>Eugenol</b> ⚠ Eye Irrit. 2 - H319, Skin Sens. 1B - H317	1,001- 5,00
78-70-6	<b>Linalool</b> EC number: 201-134-4 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	1,001- 5,00
4602-84-0	<b>Farnesol</b> EC number: 225-004-1 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	0,101-1,00
106-25-2	<b>Nerol</b> EC number: 203-378-7 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	0,101-1,00
98-55-5	<b>p-menth-1-en-8-ol</b> EC number: 202-680-6 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319	0,101-1,00
470-82-6	<b>Eucalyptol</b> EC number: 207-431-5 ⚠ Flam. Liq. 3 - H226; ⚠ Skin Sens. 1B - H317	0,101-1,00
80-56-8	<b>pin-2(3)-ene</b> EC number: 201-291-9 ⚠ Asp. Tox. 1 - H304; ⚠ Flam. Liq. 3 - H226; ⚠ Acute Tox. 4 - H302, Skin Irrit. 2 - H315, Skin Sens. 1B - H317	0,101-1,00
586-62-9	<b>Terpinolene</b> EC number: 209-578-0 ⚠ Asp. Tox. 1 - H304; ⚠ Skin Sens. 1B - H317; ⚠ Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410	0,101-1,00
1139-30-6	<b>Caryophyllene oxide</b> EC number: 214-519-7 ⚠ Aquatic Chronic 2 - H411	0,101-1,00
93-15-2	<b>4-allylveratrole</b> EC number: 202-223-0 ⚠ Acute Tox. 4 - H302; ⚠ Muta. 2 - H341, Carc. 2 - H351	0,101-1,00

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#### SECTION 04: First aid measures

##### 4.1 Description of first aid measures

- **General information:**  
Seek immediate medical advice.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.
- **After skin contact:**  
If skin irritation continues, consult a doctor.  
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Seek immediate medical advice.
- **Information for doctor:**

##### 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 05: Firefighting measures

##### 5.1 Extinguishing media

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, sand, extinguishing powder. Do not use water.  
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:**  
Water with full jet

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

Formation of toxic gases is possible during heating or in case of fire.

##### 5.3 Advice for firefighters

- **Protective equipment:**  
Do not inhale explosion gases or combustion gases.
- **Additional information**  
Cool endangered receptacles with water spray.

#### SECTION 06: Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
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.

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

Dispose of the material collected according to regulations.

##### 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 07: Handling and storage

- Handling:

#### 7.1 Precautions for safe handling

Keep receptacles tightly sealed.  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Handle with care. Avoid jolting, friction and impact.

- 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:

- Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.  
Prevent any seepage into the ground.  
Use only receptacles specifically permitted for this substance/ product.

- Further information about storage conditions:

Keep container tightly sealed.  
Protect from heat and direct sunlight.  
Store receptacle in a well ventilated area.

#### 7.3 Specific end use(s)

No further relevant information available.

### SECTION 08: Exposure controls/personal protection

#### 8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:  
Not required.

CAS No.	Designation of material	%%	Type	Value	Unit
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Not required.

- Additional information:

The lists valid during the making were used as basis.

#### 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the skin.

Avoid contact with the eyes.

- Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

- Protection of hands: Protective gloves The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Safety glasses

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## SECTION 09: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

##### Appearance:

Form:	fluid
Colour:	light yellow
Odour:	herbal
Odour threshold:	Not determined.

#### Change in condition

Initial boiling point and boiling range:	215,0 °C
Flash point:	81,0 °C NPT 60-103 CC
Flammability (solid, gas):	Not determined.
Auto-ignition temperature:	Not determined.
Explosive properties:	Not determined.
Vapour pressure:	at 25,00 °C 10,0000 mbar
Density:	Not determined.
Relative density :	0,8800 0,897 (D20/20)
Solubility in / Miscibility with water:	Not determined.
Partition coefficient: n-octanol/water:	Not determined.

9.2 Other information No further relevant information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No further relevant information available.

### 10.2 Chemical stability

Thermal decomposition / conditions to be avoided:  
Not determined.

### 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:

Not determined.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

- Acute toxicity
- LD/LC50 values relevant for classification:

ISO LD/LC

#### 8000-29-1 Cymbopogon winterianus Jowitt

Oral, LD50: >=5000 mg/kg (rat)  
Dermal, LD50: 4700 mg/kg (Rabbit)

#### 106-22-9 dl-Citronellol

Oral, LD50: 3450 mg/kg (rat)

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- Dermal, LD50: 2650 mg/kg (Rabbit)
- 105-87-3 Geranyl acetate**  
Oral, LD50: >4000 mg/kg (rat) (NTP 1987)
- 5989-27-5 (R)-p-mentha-1,8-diene**  
Oral, LD50: 4400 mg/kg (rat)
- 5392-40-5 Citral**  
Oral, LD50: 4960 mg/kg (rat)
- 87-44-5 beta-Caryophyllene**  
Oral, LD50: > 5000 mg/kg (rat) (Hart and Wong 1971)
- 97-53-0 Eugenol**  
Oral, LD50: 1930 mg/kg (rat)
- 78-70-6 Linalool**  
Oral, LD50: 2790 mg/kg (rat)  
Dermal, LD50: 5610 mg/kg (Rabbit)
- 4602-84-0 Farnesol**  
Oral, LD50: 20000 mg/kg (rat)  
Dermal, LD50: 15000 mg/kg (rat)
- 98-55-5 p-menth-1-en-8-ol**  
Oral, LD50: 4300 mg/kg (rat)
- 470-82-6 Eucalyptol**  
Oral, LD50: 3849 mg/kg (mouse) (Jiao Xu, 2014)
- 1139-30-6 Caryophyllene oxide**  
Oral, LD50: >5000 mg/kg (rat) (Moreno 1978)
- 93-15-2 4-allylveratrole**  
Oral, LD50: 810 mg/kg (rat) (Beroza and al., 1975)
- Primary irritant effect:
  - Skin corrosion/irritation  
Irritant to skin and mucous membranes.
  - Serious eye damage/irritation  
Strong irritant with the danger of severe eye injury.
  - Respiratory or skin sensitisation  
Sensitization possible through skin contact.
  - Subacute to chronic toxicity:
- 87-44-5 beta-Caryophyllene**  
Oral, NOAEL: 700 mg/kg (rat) (90 days Schmitt 2016)
- 78-70-6 Linalool**  
Oral, NOAEL: 200 mg/kg (rat) (maternal toxicity, Politano and al., 2008)
- Germ cell mutagenicity
- 105-87-3 Geranyl acetate**  
AMES: NEGATIVE (in vitro) (NTP 1987)
- 87-44-5 beta-Caryophyllene**  
AMES: NEGATIVE (in vitro) (Heck and al., 1989)
- 78-70-6 Linalool**  
AMES: NEGATIVE (in vitro) (Letizia and al., 2007)
- 470-82-6 Eucalyptol**  
AMES: NEGATIVE (in vitro) (Haworth, 1983)
- 1139-30-6 Caryophyllene oxide**  
AMES: NEGATIVE (in vitro) (Richold and al, 1979)
- Carcinogenicity
- 105-87-3 Geranyl acetate**  
Micronoyau: NEGATIVE (mouse) (in vivo, Shelby 1993)
- 78-70-6 Linalool**  
Micronoyau: NEGATIVE (mouse) (in vivo, Letizia and al., 2007)  
Micronoyau: NEGATIVE (in vitro) (DiSotto and al., 2011)
- Reproductive toxicity  
Not determined.
  - STOT-single exposure  
Not determined.
  - STOT-repeated exposure  
Not determined.

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- Aspiration hazard  
Not determined.

## SECTION 12: Ecological information

### 12.1 Toxicity

- Aquatic toxicity:

**8000-29-1 Cymbopogon winterianus Jowitt**

ErC50(0-72h): 13 mg/l (algae) (OECD 201)  
ErC50(0-72h): 21,995 mg/l (daphnia) (OECD 202 / EU Method C.2)  
96h-LC50: 29,173 mg/l (fish) (OECD 203 / EU Method C.1)

**5989-27-5 (R)-p-mentha-1,8-diene**

LD50: 0,71 mg/l (fish) (OECD 203)

**78-70-6 Linalool**

LD50: 27,8 mg/l (fish) ((OECD 203) RIFM 1991)  
ErC50(0-72h): 156,7 mg/l (algae)  
ErC50(0-48h): 59 mg/l (daphnia) ((OECD 202)

**93-15-2 4-allylveratrole**

CE50/48h: 38 mg/l (daphnia) (Ministry of the Environment of Japan 2018)  
ErC50(0-72h): 22 mg/l (algae) (Ministry of the Environment of Japan 2018)  
96h-LC50: 14 mg/l (fish) (Ministry of the Environment of Japan 2018)

### 12.2 Persistence and degradability

No further relevant information available.

- Behaviour in environmental systems:  
Not determined.

### 12.3 Bioaccumulative potential

No further relevant information available.

### 12.4 Mobility in soil

No further relevant information available.

- Ecotoxicological effects:  
Not determined.
- Additional ecological information:
- General notes:  
Toxic for aquatic organisms  
The material is harmful to the environment.

### 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 be specially treated adhering to official regulations.
- Uncleaned packaging:
- Recommendation:  
Disposal must be made according to official regulations.

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**SECTION 14: Transport information**

14.1 UN-Number

**ADR** UN3082

**IMDG** UN3082

**IATA** UN3082

14.2 UN proper shipping name

**ADR** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CYMBOPOGON WINTERIANUS JOWITT)

**IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CYMBOPOGON WINTERIANUS JOWITT)

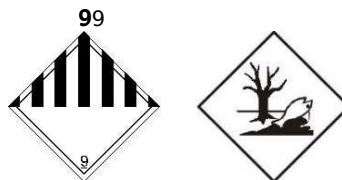
**IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CYMBOPOGON WINTERIANUS JOWITT)

14.3 Transport hazard class(es)

**ADR**

**Class** 9 (M6) Miscellaneous dangerous substances and articles.

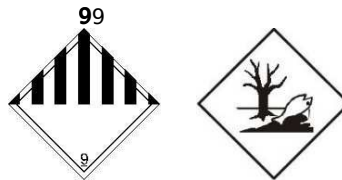
**Label**



**IMDG**

**Class** 9 Miscellaneous dangerous substances and articles.

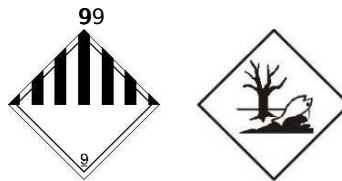
**Label**



**IATA**

**Class** 9 Miscellaneous dangerous substances and articles.

**Label**



14.4 Packing group

**ADR** III

**IMDG** III

**IATA** III

14.5 Environmental hazards:

**Marine pollutant:** Yes

14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

**Danger code (Kemler):** 90

**EMS Number:** F-A,S-F

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

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- Transport/Additional information:  
Not applicable.

**Excepted quantities (EQ):** E1**Limited quantities (LQ)** 5L**Transport category** 3**IMDG****Limited quantities (LQ)** 5L**Excepted quantities (EQ)** E1

- UN "Model Regulation":  
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(CYMBOPOGON WINTERIANUS JOWITT), 9, III

**SECTION 15: Regulatory information**

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

- National regulations:
- Waterhazard class:  
Water hazard class 2 (Self-assessment): hazardous for water.

## 15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

The information in this safety data sheet is based on the state of our knowledge at the date indicated. The information in this sheet must be regarded as a description of the safety requirements for the product, they are not to be considered a warranty or quality specification and have no contractual value on properties and application areas thereof. The information contained in this safety data sheet relate to the specific material designated and may not be valid with respect to the product associated with another product or process, unless it is specified in the text of this document.

The required information complies with EU regulations in force. It does not exempt the user from knowing and applying all the national regulations in force.

## • Relevant phrases

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
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.

## • Training hints

Minimum training in occupational risk prevention is recommended for personnel who will handle this product, in the purpose of facilitating the understanding and interpretation of this form of safety data in the same way as the labeling of the product.

## • Abbreviations and acronyms:

IFRA: International Fragrance Association IOFI: International Organization of the Flavor Industry  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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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

- Sources  
IFRA/IOFI Labelling Manual, REACH registration dossier, supplier information
- \* Data compared to the previous version altered.