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	RODI Natural Stop	

SECTION 1
IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

1.1 Product identifier

Commercial name: **RODI Natural Stop**
 TARIC - Custom Code: 3301 90 90 00
 VAT Code: IT01664370515

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

Identified uses: Natural mice and rats repellent
 Uses advised against: Use only for the purpose described above / Before using the product for other purposes than those listed, an accurate risk assessment is mandatory.

1.3 Details of the supplier of the safety data sheet

Supplier: **Union B.I.O. S.r.l.**
 Address: Via Achille Grandi 87/C - 52100 Arezzo (AR) - Italy
 Telephone: +39 0575 250767
 Fax: +39 0575 251863

E-mail address of the responsible for the Safety Data Sheet compilation: info@unionbio.it

1.4 Emergency Telephone Numbers

Hospital	City	Address	CAP	Phone
CAV "Osp. Pediatrico Bambino Gesù"	Roma	Piazza Sant'Onofrio, 4	00165	+39 06 68593726
Az. Osp. Univ. Foggia	Foggia	V.le Luigi Pinto, 1	71122	+39 0881 732326
Az. Osp. "A. Cardarelli"	Napoli	Via A. Cardarelli, 9	80131	+39 081 7472870
CAV Policlinico "Umberto I"	Roma	V.le del Policlinico, 155	00161	+39 06 49978000
CAV Policlinico "A. Gemelli"	Roma	Largo Agostino Gemelli, 8	00168	+39 06 3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica	Firenze	Largo Brambilla, 3	50134	+39 055 7947819
CAV Centro Nazionale di Informazione Tossicologica	Pavia	Via Salvatore Maugeri	27100	+39 0382 24444
Osp. Niguarda Ca' Granda	Milano	Piazza Ospedale Maggiore, 3	20162	+39 02 66101029
Azienda Ospedaliera Papa Giovanni XXII	Bergamo	Piazza OMS, 1	24127	+39 800883300

SECTION 2
HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture


The product is NOT dangerous according to EC Regulation No. 1272/2008 (CLP) a.a.
 The product therefore requires a safety data sheet in compliance with the Reg. 2015/830/EU.
 Any additional information concerning health safety and/or the environment is provided in Section 11 and 12 of this sheet.

2.2 Label elements

Labeling according to the Reg. (EC) n. 1272/2008 (CLP) a.a.:

GHS Pictograms:

Warning:

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Danger indication: EUH 210 Safety data sheet available on request.
 EUH 208 Contains: **Geraniol**. May cause an allergic reaction.

Safety advices: P101 – If medical advice is needed, have product container or label at hand
 P102 – Keep out of reach of children
 P103 – Read label before use

2.3 Other hazards

According to the available data, the product does not contain PBT or vPvB substance in excess of 0.1%.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not relevant information.

3.2 Mixtures

Containing:

Name	EC Number	CAS Number	Concentration % on finished product (p/p)	Classification Reg. 1272/2008/CE	REACH
Geraniol	203-377-1	106-24-1	0.30 – 0.70%	Eye Dam. 1 H318 Skin Irrit. 2 H315 Skin Sens. 1 H317	01-2119552430-49-0000

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

In case of eyes contact: Remove contact lenses, if present and easy to do. Rinse carefully with water for several minutes, at least 15 minutes, get medical advice in case of persisting irritation or disease.

In case of skin contact: Take off contaminated clothing. Wash immediately the skin with water and soap in case of prolonged contact.

In case of inhalation: In case of inhalation of large quantities of product, remove victim to fresh air, in a well-ventilated place; and get medical advice if you experience symptoms and adverse reactions.

In case of ingestion: Rinse the mouth with plenty of water. Do NOT induce vomiting. Contact a POISON CENTER or a physician, and present the safety data sheet.

4.2 Most important symptoms and effects, both acute and delayed

Not known specific information about the symptoms and effects caused by the product.

4.3 Indication of any immediate medical attention and special treatment needed

In case of accident or if you feel unwell, get immediately medical advice (show the instruction for use or the safety data sheet if possible).


SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

SUITABLE EXTINGUISH MEDIA: water spray, CO₂, dry extinguishing powder.

UNSUITABLE EXTINGUISH MEDIA: none.

5.2 Special hazards arising from the substance or mixture

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In the event of fire, the mixture can evaporate, reducing the concentration of oxygen in the air. Avoid breathing vapours.

5.3 Advice for firefighters

GENERAL INFORMATION

Cool containers with water jets to avoid product evaporation and the development of substances potentially hazardous to health. Always wear complete fire protection equipment. Collect extinguishing water that should not be discharged into drains. Dispose of contaminated water used for fire extinguishing and residues in accordance with current regulations.

EQUIPMENT

Regular protective firefighting clothing, self-contained compressed air breathing apparatus with open-circuit system (EN 137), protective clothing for firefighters (EN469), firefighters gloves (EN 659) and boots for Firefighters (HO A29 or A30).

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

FOR THOSE WHO DO NOT INTERVENE DIRECTLY: make an emergency call. Evacuate from the area if you are not wearing regular protective clothing listed at Section 8.

FOR EMERGENCY RESPONDERS: evacuate area. Wear suitable protective equipment (including the individual protective equipment listed in Section 8 of the safety data sheet) to prevent skin, eye and clothing contamination.

Stop leak if safe to do so. Area available to workers after complete clean-up.

The procedures apply to both workers and emergency workers.

Ventilate the area.

6.2 Environmental precautions

Do not allow to enter into drains, surface water, groundwater.

6.3 Methods and material for containment and cleaning up

Hoover the leak material into suitable containers. Use suitable absorbent materials (e.g. vermiculite, diatomaceous earth, sand, fossil flour, zeolites, activated carbon, aluminum gel / silica). Provide sufficient ventilation of the place affected by the leak. Disposal of contaminated material must be carried out in accordance with the provisions of Section 13.

6.4 Reference to other sections

Personal protection equipment: see section 8.

Containment and disposal: see section 13.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from heat, open flames, sparks and other sources of ignition, do Use only in well-ventilated areas. Keep away from children. Keep away from food, drink and feed.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in the original container. Store in a cool, well-ventilated place. Keep containers away from incompatible materials, check Section 10.

7.3 Specific end use(s)

No particular end uses other than the identified uses in Section 1.2 of this safety data sheet.



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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Geraniol – CAS: 106-24-1

Data for workers

INHALATION EXPOSURE:

Systemic effects

Long-term (DNEL): 161.6 mg/m³

Most sensitive study: repeated dose toxicity

Acute/short term: no hazard identified

Local effects

Long-term (DNEL): no hazard identified

Acute/short term: no hazard identified

DERMAL EXPOSURE:

Systemic effects

Long-term (DNEL): 12.5 mg/kg bw/day

Most sensitive study: repeated dose toxicity

Acute/short term: no hazard identified

Local effects

Long-term (DNEL): 11.8 mg/m³

Acute/short term: no hazard identified

Most sensitive study: sensitization (skin)

Acute/short term: medium hazard (no threshold derived)

EYE EXPOSURE:

Medium hazard (no threshold derived)

Data for the general population

INHALATION EXPOSURE:

Systemic effects

Long-term (DNEL): 47.8 mg/m³

Most sensitive study: repeated dose toxicity

Acute/short term: no hazard identified

Local effects

Long-term: no hazard identified

Acute/short term: no hazard identified

DERMAL EXPOSURE:

Systemic effects

Long-term (DNEL): 7.5 mg/kg bw/day

Most sensitive study: repeated dose toxicity


Acute/short term: no hazard identified

Local effects

Long-term (DNEL): 11.8 mg/m³

Acute/short term: no hazard identified

Most sensitive study: sensitization (skin)

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Acute/short term: medium hazard (no threshold derived)

ORAL EXPOSURE: 13.75 mg/kg bw/day
 Most sensitive study: repeated dose toxicity
 Acute/short term: no hazard identified

EYE EXPOSURE:
 Medium hazard (no threshold derived)

8.2 Exposure controls

The use of appropriate technical measures should always have priority over personal protection equipment; ensure good ventilation at the workplace by means of effective local suction (air circulation duct).

When choosing personal protective equipment, ask your chemical suppliers if necessary.

Personal protective equipment must bear the CE marking attesting to their compliance with the laws in force.

HAND PROTECTION: Wear protective gloves (butyl rubber and equivalents) (Cat III, classe A, UNI EN 374).

For the definitive choice of safety work gloves consider compatibility, degradation, break time and permeation.

The resistance of the work gloves to chemicals must be verified before use, inasmuch it is unpredictable. The gloves have a wear time depending on duration and mode of use.

SKIN PROTECTION: Wear work clothing with long sleeves and safety professional footwear, category III (Reg. EU No. 2016/425 and EN ISO 20344 standards). Remove protective clothes and wash carefully with soap and water. When the protective clothing is removed, take a shower with soap and water.

EYE PROTECTION: It is advised to wear tightly fitting goggles (see EN 166 standards). Provide emergency shower with eye face bowl.

RESPIRATORY PROTECTION: In case one or more substance value in the product (e.g. TLV-TWA) overcomes, it is advised to wear a A type filter mask, P type (for particulates) and the (1, 2 or 3) class must be chosen in relation to the concentration limit of use (see EN 14387 standards).

In case of different/with particles gases or vapours (aerosols, fumes, mists, etc.), combined filters must be provided.

The use of respiratory protection devices is necessary if the technical measures adopted are not sufficient to limit the exposure of the worker to the considered threshold values.

However, the mask protection is limited.

ENVIRONMENTAL EXPOSURE CONTROLS: In compliance with the environmental protection laws, must be supervised the production process emissions, included the ventilation equipment.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on fundamental physical and chemical properties

Appearance	Liquid
Colour	Amber
Odour	Characteristic
Odour detection threshold	No data available
pH	5 ± 0.5
Melting point / freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Does not apply (liquid)
Upper/Lower Flammability	No data available
Upper/Lower Explosive limits	No data available
Vapour pressure	No data available
Vapour density	Does not apply (the product is a mixture)
Relative density	No data available
Solubility	Water soluble



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Partition coefficient: n-octanol/water:
Auto-ignition temperature
Decomposition temperature
Viscosity
Explosive properties
Oxidising properties

Does not apply (the product is a mixture)
Does not apply (not combustible)
No data available
No data available
No data available
Not oxidising

9.2 Other information

No additional information.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity

No chemical reactivity hazards under recommended conditions of use.

10.2 Chemical stability

The product is chemically stable under recommended conditions of use, temperature and stockage.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Condition to avoid

Keep away from sources of heat or direct sunlight.

10.5 Incompatible materials

N.A.

10.6 Hazardous decomposition products

Heat degradation can produce (mainly) CO_x.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effect

The toxicological information about the main substances are the following:

Geraniol – CAS: 106-24-1


LD50 Acute oral
Value /Validation: 3600 mg/Kg
Species: rat

LD50 Acute dermal
Value /Validation: >5000 mg/Kg
Species: rabbit

Skin irritation
Value/Validation: strong irritant. Remark: experiences

Eye irritation
Value /Validation: strong irritant.
Species: rabbit

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:

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- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity

Use according to adequate working practices, do not dispose of the product in the environment.

Geraniol – CAS: 106-24-1

Fish - Value: LC50 3.2mg/l (96 h)

Species: Pimephales promelas

Bacteria – Value: EC50 70mg/l (0.5 h)

Species: activated sludge

12.2 Persistence and degradability

N.A.

12.3 Bioaccumulative potential

N.A.

12.4 Mobility in soil

Information not available.

12.5 Results of PBT and vPvB assessment

Based on the available data, the product does not contain PBT or vPvB substances in excess of 0.1%.

12.6 Other adverse effects

N.A.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Disposal methods

Re-Use when possible. Consider the product residues as hazardous special waste.


The hazardous special waste disposal must be in accordance with local regulations in force. The waste disposal must be assigned to authorized waste management company in compliance with national and eventually local laws.

CONTAMINATED PACKAGING

Contaminated packaging must be sent for recycling or disposal pursuant to national waste management regulations.

SECTION 14 TRANSPORT INFORMATION

The product is not classified as hazardous in compliance with the laws in force on carriage of hazardous goods by road (ADR), by rail (RID), by sea (IMDG Code) and by air (IATA).

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14.1 UN number

Not applicable

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

Not relevant

**SECTION 15
REGULATORY INFORMATION**

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

REGULATION EC No. 1272/2008 (CLP) a.a.

REGULATION EC No. 1907/2006 (REACH) a.a.

Refer to the following legal and regulatory provisions (when applicable):

Ministerial circulars (Ministry of Labour and Social Policies) No. 46/1979 and 61/1981 (Aromatic Amines)

Lgs. D. 21 September 2005 No. 238

Lgs. D. 26 June 2015 No. 105, directive 2012/18/EU (Seveso III)

Regulation (EC) No. 648/2004 (Detergents)

Lgs. D. 3 April 2006 No. 152 Environmental regulation

Seveso Cat: None.

Restrictions related to the product or to the substances contained according to Annex XVII to Regulation (EC) No. 1907/2006.

Substances contained: None.

Candidate List of substances (Art. 59 REACH): None.

Substances subject to authorization (Annex XIV REACH): None.

Substances subject to Reg. (CE) 649/2012, concerning the Export and Import of Hazardous Chemicals: None.

Substances subject to the Rotterdam Convention: None.

Substances subject to the Stockholm Convention: None.

Sanitary checks: Information not available.

15.2 Chemical Safety Assessment


For this product, a chemical safety assessment has not been carried out.

Upon request and where available, exposure scenarios can be provided for the single components.

**SECTION 16
OTHER INFORMATION**

First edition
Abbreviations and acronyms:

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

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- CAS No: Chemical Abstracts Service Number
- EC50: Median Effective Concentration
- EC NUMBER: European chemical number (ESIS)
- CLP: EC Regulation No 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- IATA DGR: regulations to ensure safe and efficient transportation of dangerous goods by air
- IC50: Inhibitory concentration for 50% of the population subject to testing
- IMDG: International Maritime Dangerous Goods Code
- IMO: International Maritime Organization
- INDEX NUMBER: Identification number according to Annex VI of the CLP
- LC50: Median Average Lethal Concentration
- LD50: Median lethal Dose
- OEL: Occupational exposure limit
- PBT: Persistent, bioaccumulative and toxic substances according to REACH
- PEC: Predicted environmental concentration
- PEL: Predicted exposure level
- PNEC: Predicted No Effect Concentration
- REACH: Regulation EC No. 1907/2006
- RID: regulations concerning the International Carriage of Dangerous Goods by Rail
- TLV: Threshold limit value
- TLV CEILING: Concentration that must not be exceeded at any time during working exposure
- TWA STEL: Short-term exposure limits
- TWA: Time-weighted average
- VOC: Volatile Organic Compounds
- vPvB: Very persistent and very bio-accumulative according to REACH
- WGK: German Water Hazard Class (Germany)

Calculation method

Physical-chemical hazards: the hazard has derived from the classification criteria of the CLP Regulation Annex I Part 2 and as amended.

The health hazards are assessed using the calculation method established in the Reg. (EC) 1272/2008 (CLP) and as amended for the classification of mixtures when data exist on all components of the mixture or on some of them:

Skin Irrit. 2 H315: additive formula criteria Table 3.2.3 Annex I Part 3 of CLP Regulation

Eye Dam 1 H318: additive formula criteria Table 3.3.3 Annex I Part 3 of the CLP Regulation

Skin Sens 1A / 1B / 1 H317 Table 3.4.5 Annex I, Part 3 Reg. (EC) 1272/2008 (CLP) a.a.

Environmental hazard has derived from classification criteria of the Regulation (EC) 1272/2008 (CLP) as amended for the classification of mixtures when data exist on all components of the mixture or on some of them:

Water acute toxicity: tab 4.1.1 Annex I, Part 4 Reg. (CE) 1272/2008 (CLP) as amended

Water chronic toxicity: tab 4.1.2 Annex I, Part 4 Reg. (CE) 1272/2008 (CLP) as amended


Bibliography:

Geraniol – CAS: 106-24-1

Database ECHA, Sensitive Database, Istituto Superiore di Sanità, Supplier of the substances Safety Data Sheet Rev n° 1.2 del 01/06/2017

GENERAL BIBLIOGRAPHY:

1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
2. Regulation (EC) 1272/2008 of the European Parliament (CLP)
3. Regulation (EU) 790/2009 of the European Parliament (I Atp. CLP)
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)

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11. Regulation (EU) 2016/918 of the European Parliament (VIII Atp CLP)
 12. Regulation (EU) 2016/1179 (IX Atp CLP)
 13. Regulation (EU) 2017/776 (X Atp CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - Niosh - Registry of Toxic Effects of Chemical Substances
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - Website ECHA

Hazard statements (H) Reg. EC No. 1272/2008:

Eye Dam. 1 Eye Damages, cat.1
 Eye Irrit. 2 Eye Irritation, cat. 2
 Skin Irrit. 2 Skin Irritation, cat.2
 H318 Causes serious eye damage
 H315 Causes skin irritation
 H317 May cause an allergic skin reaction

European Emergency Number: 112
 AUSTRIA +43 1 406 43 43
 BELGIUM/LUXEMBOURG +32 070 245 245
 BULGARIA +359 2 9154 409
 CROATIA +385 1 2348 342 or 112
 CZECH REPUBLIC +420 224 919 293 or +420 224 915 402
 DENMARK +45 82 12 12 12
 ESTONIA 16662 or 112
 FINLAND +358 09 471 977
 FRANCE +33 (0)1 45 42 59 59
 GERMANY +49 30 450 653565
 GREECE +30 10 779 3777
 HUNGARY +36 80 20 11 99
 ICELAND 543 2222
 IRELAND +353 01 8092566 or 01 8379964
 ITALY +39 06 305 4343
 LATVIA +371 67042473
 LITHUANIA +370 5 236 20 52 or +370 687 53378
 MALTA (+356) 2545 0000
 NORWAY 22 59 13 00
 NETHERLANDS +31 30 274 88 88
 POLAND +48 22 619 66 54 or +48 22 619 08 97
 PORTUGAL 808 250 143
 ROMANIA +40 021.318.36.06
 SLOVAKIA +421 2 5477 4166
 SLOVENIA +386 41 650 500
 SPAIN +34 91 562 04 20
 SWEDEN 112
 UNITED KINGDOM 0870 243 2241 or +44 (0)20 7771 5310

NOTICE TO USERS

The information provided is based on the available knowledge at the time of the last version. The User must ensure the adequacy and exhaustiveness of the information related to the specific use. The information is not to be intended as provision of security about specific properties of the product. Since the use is not under our direct supervision, it is mandatory to comply with the laws in force concerning health and safety. The manufacturer does not accept responsibility for inappropriate use. Provide adequate training to involved personnel in the use of chemical products.