

SAFETY DATA SHEET

Envirobead (Lemon)

According to Regulation (EC) No 1907/2006 (REACH), Annex II, as amended.

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

1.1. Product identifier

Product name Envirobead (Lemon)

Product number PL.605/100

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

Identified uses Autoclave deodorant to be used when autoclaving laboratory waste (one capsule per autoclave).

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Pro-Lab Diagnostics
3 Bassendale Road
Wirral
Merseyside
CH62 3QL
Tel: 0151 353 1613
Fax: 0151 353 1614
mowen@pro-lab.com

1.4. Emergency telephone number

Emergency telephone +44 (0)151 353 1613 Monday to Friday 9.00 to 17.00
+44 (0)7714 429 646 outside the above hours

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

2.2. Label elements**Hazard statements**

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Administrative information:

EUH210 Safety Data Sheet available on request.
 EUH208 Contains:
 (1-methyl-2-(5-methylhex-4-en-2-yl)cyclopropyl)methanol
 3,7-dimethyl-6-octen-1-al (=citronellal)
 2-oxabicyclo(2.2.2)octane, 1,3,3-trimethyl (=Eucalyptol)
 2,4-dimethylcyclohex-3-ene-1-carbaldehyde
 May provoke an allergic reaction.

2.3. Other hazards

None.

SECTION 3: Composition/information on ingredients3.1 Substances

n/a

3.2. Mixtures

Identification	(EC) 1272/2008	Note	Concentration (%)
Decanal CAS: 112-31-2 EC: 203-957-4	Eye Irrit. 2; H319 Aquatic Chronic 2; H412		2.49
3,7-dimethyl-2(3),6- Nonadienonitrile CAS: 61792-11-8 EC: 263-214-5	Aquatic Chronic 2; H411		1.49
2- oxabicyclo(2.2.2)octane, 1,3,3-trimethyl- (=Eucalyptol) CAS: 470-82-6 EC: 207-431-5	Flam. Liq. 3; H226 Skin Sens. 1B ; H317		0.89

Identification	(EC) 1272/2008	Note	Concentration (%)
2,4-dimethylcyclohex-3-ene-1-Carbaldehyde CAS: 68039-49-6 EC: 268-264-1	Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Chronic 2; H411		0.50
3,7-dimethyl-6-octen-1-al (=citronellal) CAS: 106-23-0 EC: 203-376-6	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1B; H317		0.49
(1-methyl-2-(5-methylhex-4-en-2-yl)cyclopropyl) methanol CAS: 1655500-83-6 EC: n/a	Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1B; H317 Aquatic Chronic 2; H411		0.20

The Full Text for all Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
Do not leave the victim unattended.

4.1. Description of first aid measures

In the event of splashes or contact with eyes:

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.
If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin:

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner. Watch out for any remaining product between skin and clothing, watches, shoes, etc.
In the event of an allergic reaction, seek medical attention.
If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing:

Do not give the patient anything orally. In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor. Keep the person exposed at rest. Do not induce vomiting. Seek medical attention immediately, showing the label. If swallowed

accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

No data available.

SECTION 5: Firefighting measures

Non-flammable.

5.1. Extinguishing media

Suitable extinguishing media Use sprayed water or water mist, foam, multi-purpose ABC powder, BC powder, Carbon Dioxide (CO₂).

Unsuitable extinguishing Media Water jet.

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

Wear self-contained breathing apparatus for fire fighting if necessary.

Further information: Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed in Sections 7 and 8.

For non-first aid worker

Avoid any contact with the skin and eyes.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.
Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Wipe up with absorbent material (eg cloth, fleece). Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Not applicable.

SECTION 7: Handling and storage

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

7.1. Precautions for safe handling

Always wash hands after handling.
Remove and wash contaminated clothing before re-using.
Ensure that there is adequate ventilation, especially in confined areas.

Fire prevention :

Handle in well-ventilated areas.
Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.
Observe precautions stated on label and also industrial safety regulations.
Avoid skin and eye contact with this mixture.
Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Keep the container tightly closed in a dry, well-ventilated place.
The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Packaging

Always keep in packaging made of an identical material to the original.

Incompatibilities

No data available.

7.3. Specific end use(s)

No data available.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Contains no substances with occupational exposure limits.

Occupational exposure limits

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

CAS: 112-31-2

End use – workers:

Exposure routes : Inhalation
Potential health effects : Long-term systemic effects
Value : 24,86 mg/m³

Exposure routes : Inhalation
Potential health effects : Acute systemic effects
Value : 49,71 mg/m³

Exposure routes : Inhalation
Potential health effects : Long-term local effects
Value : 62,14 mg/m³

Exposure routes : Inhalation
Potential health effects : Acute local effects
Value : 124,3 mg/m³

Exposure routes : Dermal
Potential health effects : Long-term systemic effects
Value : 7,05 mg/kg bw/day

Exposure routes : Dermal
Potential health effects : Acute systemic effects
Value : 14,1 mg/kg bw/day

Exposure routes : Dermal
Potential health effects : Long-term local effects
Value : 17,62 mg/cm²

Exposure routes : Dermal
Potential health effects : Acute local effects
Value : 35,24 mg/cm²

End use - consumers:

Exposure routes : Inhalation
Potential health effects : Long-term systemic effects
Value : 6,13 mg/m³

Exposure routes : Inhalation
Potential health effects : Acute systemic effects
Value : 12,26 mg/m³

Exposure routes : Inhalation
Potential health effects : Long-term local effects
Value : 15,32 mg/m³

Exposure routes : Inhalation
Potential health effects : Acute local effects
Value : 30,65 mg/m³

Exposure routes : Dermal
Potential health effects : Long-term systemic effects
Value : 3,52 mg/kg bw/day

Exposure routes : Dermal
Potential health effects : Acute systemic effects
Value : 7,05mg/kg bw/day

Exposure routes : Dermal
Potential health effects : Long-term local effects
Value : 8,81 mg/cm²

Exposure routes : Dermal
Potential health effects : Acute local effects
Value : 17,62 mg/cm²

Exposure routes : Oral
Potential health effects : Long-term systemic effects
Value : 3,52 mg/kg bw/day

CAS: 61792-11-8

End use - workers:

Exposure routes : Inhalation
Potential health effects : Long-term systemic effects
Value : 5,29 mg/m³

Exposure routes : Inhalation
Potential health effects : Acute systemic effects
Value : 10,58 mg/m³

Exposure routes : Inhalation
Potential health effects : Long-term local effects
Value : 13,22 mg/m³

Exposure routes : Inhalation
Potential health effects : Acute local effects
Value : 26,45 mg/m³

Exposure routes : Dermal
Potential health effects : Long-term systemic effects
Value : 1,5 mg/kg bw/day

Exposure routes : Dermal
Potential health effects : Acute systemic effects
Value : 3 mg/kg bw/day

Exposure routes : Dermal
Potential health effects : Long-term local effects
Value : 3,75 mg/cm²

End-Use : Workers
Exposure routes : Dermal
Potential health effects : Acute local effects
Value : 7,5 mg/cm²

End use - consumers:

Exposure routes : Inhalation
Potential health effects : Long-term systemic effects
Value : 1,3 mg/m³

Exposure routes : Inhalation
Potential health effects : Acute systemic effects
Value : 2,61 mg/m³

Exposure routes : Inhalation
Potential health effects : Long-term local effects
Value : 3,26 mg/m³

Exposure routes : Inhalation
Potential health effects : Acute local effects
Value : 6,52 mg/m³

Exposure routes : Dermal
Potential health effects : Long-term systemic effects
Value : 0,75 mg/kg bw/day

Exposure routes : Dermal
Potential health effects : Acute systemic effects
Value : 1,5 mg/kg bw/day

Exposure routes : Dermal
Potential health effects : Long-term local effects
Value : 1,88/cm²

Exposure routes : Dermal
Potential health effects : Acute local effects
Value : 3,75 mg/cm²

Exposure routes : Oral
Potential health effects : Long-term systemic effects
Value : 0,75 mg/kg bw/day

Predicted no effect concentration (PNEC):

CAS: 112-31-2

Environmental compartment: Fresh water
PNEC : 0.00117 mg/l

Environmental compartment: Fresh water sediment
PNEC: 0.097 mg/kg dry weight (d.w.)

Environmental compartment: Marine water
PNEC: 0.000117 mg/l

Environmental compartment: Marine sediment
PNEC: 0.00972 mg/l

Environmental compartment: Sewage treatment plant
PNEC: 3.16 mg/l

Environmental compartment: Soil
PNEC: 0.019 mg/kg dry weight (d.w.)

CAS: 61792-11-8

Environmental compartment: Fresh water
PNEC: 0.0024 mg/l

Environmental compartment: Fresh water sediment
PNEC: 0.248 mg/kg dry weight (d.w.)

Environmental compartment: Marine water
PNEC: 0.00024 mg/l

Environmental compartment: Marine sediment
PNEC: 0.025 mg/kg dry weight (d.w.)

Environmental compartment: Sewage treatment plant
PNEC: 0.9 mg/l

Environmental compartment: Soil
PNEC: 0.05 mg/kg dry weight (d.w.)

8.2. Exposure controls

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.
Store personal protective equipment in a clean place, away from the work area.
Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using.
Ensure that there is adequate ventilation, especially in confined areas.

Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes .

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))
- PVA (Polyvinyl alcohol) Recommended properties :
- Impervious gloves in accordance with standard EN374

Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing:

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

SECTION 9: Physical and Chemical Properties9.1. Information on basic physical and chemical properties

Physical state:	liquid
Form:	liquid
Colour:	Yellow
Taste:	not determined
Odour:	lemon
Odour Threshold:	not applicable
Flash point:	92 °C Method : Grabner Miniflash closed cup
Lower explosion limit:	not determined
Upper explosion limit:	not determined
Flammability (solid, gas):	not applicable
Oxidizing properties:	no data available
Auto-ignition temperature:	not determined
Decomposition Temperature:	no data available
pH:	not determined
Melting point:	not determined
Boiling point:	not determined
Vapour Pressure:	0.0777 hPa at 20 °C Calculated (99.9%)
Density:	1 000,19 kg / m ³ at 20°C
Bulk density:	not applicable
Water solubility:	not determined
Solubility/qualitative:	practically insoluble
Partition coefficient n-octanol / water	not applicable
Viscosity, kinematic:	no data available
Relative vapor density:	no data available
Evaporation rate:	no data available
Explosive properties:	no data available

9.2. Other information

No data available.

SECTION 10: Stability and reactivity10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.
Stockage : 1 year secure from air and light and heat.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Avoid temperatures close to flash point (see Section 9).
Avoid direct sources of heat.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

Thermal decomposition may release/form:
- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11: Toxicological information11.1. Information on toxicological effects

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

May have reversible effects on the eyes, such as eye irritation, which is totally reversible by the end of observation at 21 days.

Splashes in the eyes may cause irritation and reversible damage.

Acute oral toxicity: Acute toxicity estimate
Dose: > 2000 mg/kg
Method: calculation method

Acute inhalation toxicity: Acute toxicity estimate Exposure time : 4h
Dose : >2000 mg/l
Method : Calculation method

Acute dermal toxicity: Acute toxicity estimate
Dose: > 2000 mg/kg
Method : Calculation method

11.1.1 Acute toxicity – Substances

Acute oral toxicity

Decanal
(CAS: 112-31-2) LD50 = >33.20 mg/kg
Species: Rat

3,7-dimethyl-2(3),6-nonadienonitrile
(CAS: 61792-11-8) LD50 = 2600 mg/kg
Species: Rat

3,7-dimethyl-6-octen-1-al (=citronellal)
(CAS: 106-23-0) LD50 = 2420 mg/kg
Species: Rat

(1-methyl-2-(5-methylhex-4-en-2-yl)
cyclopropyl) methanol
(CAS: 1655500-83-6) LD50 = 2000 mg/kg
Species: Rat

Acute inhalation toxicity

Decanal Exposure time: 8h Species: Rat
(CAS: 112-31-2) No adverse effect has been observed in acute toxicity tests.

Acute dermal toxicity

Decanal LD50 : 4 173 mg/kg
(CAS: 112-31-2) Species : Rabbit

3,7-dimethyl-2(3),6-nonadienonitrile LD 50 : > 5 000mg/kg
(CAS: 61792-11-8) Species : Rabbit

2,4-dimethylcyclohex-3-ene1-carbaldehyde LD 50 : 5 000 mg/kg
(CAS: 68039-49-6) Species : Rabbit

(1-methyl-2-(5-methylhex-4-en-2-yl)
cyclopropyl)methanol LD 50 > 1 000 mg/kg
(CAS: 1655500-83-6) Species : Rat

Acute toxicity (other routes of administration)

No data available.

Skin corrosion/ irritation

No data available.

Serious eye damage

No data available.

Respiratory or skin sensitisation

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Target organ systemic toxicant - single exposure

No data available.

Target organ systemic toxicant - repeated exposure

No data available.

Aspiration hazard

No data available.

Phototoxicity

No data available.

SECTION 12: Ecological Information

12.1. Toxicity

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio-accumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available.

SECTION 13: Disposal considerations

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14: Transport information

Exempt from transport classification and labelling.

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2015 - IMDG 2014 - ICAO/IATA 2015).

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Container information**

No data available.

Particular provisions

No data available.

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704):

Labelling: Health=2, Inflammability=2, Instability/Reactivity=1, Specific Risk=none.

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

SECTION 16: Other information

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations. The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Abbreviations :

DMEL : Derived Minimum Effect Level

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

EUH208 : Contains <name of sensitising substance>

EUH210 : Safety data sheet available on request.

PBT: Persistent, bio accumulative and toxic.

vPvB : Very persistent, very bio accumulative.

Revision date 07/08/2018

Revision 5

Supersedes date 15/05/2015

SDS number SD834

Hazard statements in full:

H226 Flammable liquid and vapour.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic organisms.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

The information in this safety data sheet was obtained from current and reliable sources. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Pro-Lab Diagnostics control, it is the user's responsibility to perform thorough testing of this product when used in combination with any other product. It is suggested that users familiarise themselves with this safety data sheet before handling the product.