

Material Safety Data Sheet

According to EU Regulation 1907/2006 in the current version

ECTOIN PURE POWDER

1. Identification of the substance/mixture and company

Trade name:	Ectoin Pure Powder
INCI	Ectoin
CAS No. :	96702-03-3
REACH:	A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration
Utilization:	Raw material for cosmetic use
Supplier company identification:	Elemental SRL, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania Tel/Fax: +40259-436.755, www.elemental.com
Emergency:	RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de Sănătate Publică București. International emergency number: +49 180 2273-112

2. Hazards Identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

This substance is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements

Additional advice on labelling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

2.3. Other hazards

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

3. Declaration of ingredients

3.1 Substances

Ectoin CAS No.: 96702-03-3 100%

Chemical Formula: C₆H₁₀N₂O₂

Molecular weight: 142,16

Specific Conc. Limits dermal: LD50 = >2000 mg/kg; oral: LD50 = >2000 mg/kg

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

3.2 Mixtures

Not applicable

4. First aid measures

4.1. Description of first aid measures

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General information

In case of accident or unwellness, seek medical advice immediately, show directions for use or safety data sheet if possible.

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

See sections 2 and 11

4.3. Indication of any immediate medical

5. Fire fighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂). Dry extinguishing powder. alcohol resistant foam. Atomized water.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrogen oxides.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Avoid dust formation. Do not breathe dust.

For non-emergency personnel

Wear personal protection equipment (refer to section 8).

For emergency responders

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No special measures are necessary.

6.2. Environmental precautions

Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

For containment

Take up mechanically.

Treat the recovered material as prescribed in the section on waste disposal.

For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

7. Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Wear personal protection equipment (refer to section 8).

Advice on protection against fire and explosion

Usual measures for fire prevention. Dust clouds may present an explosion hazard.

Advice on general occupational hygiene

Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash hands before breaks and after work.

Further information on handling

Avoid generation of dust.

General protection and hygiene measures: See section 8.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 15 - 25°C Protect against: Light. UV-radiation/sunlight. Heat. Humidity.

7.3. Specific end use(s)

See section 1.

8. Exposure controls / personal protection

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8.1 Control parameters

Handle in accordance with good industrial hygiene and safety practice

8.2 Exposure controls

Eye/Face protection: Avoid contact with eyes, wear safety glasses / dust protection goggles.

Skin protection: Suitable Lab protective clothing. Nitrile gloves.

Respiratory protection: Wear personal respiratory protective equipment.

Do not take internally.

8.3 Environmental exposure controls

Environmental protection legislation for every country must be observed

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: solid powder

Colour: white to off-white

Odour: slight characteristic odour

Odour threshold: no information available

pH: 5.0-7.8 (2% in aqueous solution)

Melting point/range: not determined

Boiling point/boiling range: not determined

Flash point: not determined

Evaporation rate: not determined

Lower explosion limit: not determined

Upper explosion limit: not determined

Vapour pressure: not determined

Relative vapour density: Not applicable

Relative density: not determined

Density: not determined

Water solubility: soluble

Solubility in other solvents: soluble in water, ethanol, glycols

Partition coefficient: n-octanol/water: Not applicable

Auto-ignition temperature: No data available

Ignition temperature: not determined

Thermal decomposition: No data available

Viscosity, dynamic: not determined

Explosive properties: Not explosive

Oxidizing properties: No data available

9.2 Other information

No data available

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10. Stability and reactivity

10.1 Reactivity

No reactivity hazards known. Stable material.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

No hazardous reactions known if stored and handled as recommended

10.4 Conditions to avoid

None known if stored and handled as recommended. Protect against: UV-radiation/sunlight. heat.

10.5 Incompatible materials

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

10.6 Hazardous products decomposition

No hazardous decomposition products known if stored and handled as recommended. Can be released in case of fire: Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

11. Toxicological information

11.1 Information effects on toxicological

The toxicological effects of this compound have not been thoroughly studied.

Toxicokinetics, metabolism and distribution: No data available.

Acute toxicity: based on available data, the classification criteria are not met.

Skin irritation: Not expected

Eye irritation: May irritate eyes.

Sensitisation: No data available

Genotoxicity in vitro: No data available

Carcinogenicity: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: No data available.

Endocrine disrupting properties: This product does not contain known or suspected endocrine disruptors according to REACH or relevant EU Regulations.

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.

Subacute oral toxicity: Method: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)

Species: Rat; Exposure duration: 28 d. Results: NOAEL \geq 300 mg/kg. Literature information: ECHA Dossier

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

12. Ecological information

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12.1 Toxicity

CAS No	Chemical name		Dose		[h] [d]	Species	Source	Method
96702-03-3	(S)-2-methyl-3,4,5,6-tetrahydropyrimidine-4-carboxylic acid							
	Acute fish toxicity	LC50	>100 mg/l	96 h		Danio rerio	ECHA Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50	>100 mg/l	72 h		Desmodesmus subspicatus	ECHA Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50	100 mg/l	48 h		Daphnia magna	ECHA Dossier	OECD Guideline 202

12.2 Persistence and degradability

CAS No	Chemical name		Method		Value	d	Source
			Evaluation				
96702-03-3	(S)-2-methyl-3,4,5,6-tetrahydropyrimidine-4-carboxylic acid		EU Method C.4-E (93%	28	ECHA Dossier
			Easily biodegradable (concerning to the criteria of the OECD)				

12.3 Bioaccumulation potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
96702-03-3	(S)-2-methyl-3,4,5,6-tetrahydropyrimidine-4-carboxylic acid	>= -3

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.6. Other adverse effects

This substance does not have endocrine disrupting properties with respect to non-target organisms.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

12.7. Other adverse effects

No data available.

Further information

Do not allow to enter into surface water or drains.

13. Disposal considerations

13.1 Waste treatment methods

This material and its container should be disposed safely avoiding release to the environment

National and regional provisions that may be in force should be observed

14. Transport information

14.1 UN number

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Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks: Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

15. Regulatory information

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

EU regulatory information

2010/75/EU (VOC): Not determined. 2004/42/EC (VOC): Not determined.

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

REACH 1907/2006 Appendix XVII, No.: not relevant

National regulatory information

Water contaminating class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment is not required.

16. Additional information

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Test-ing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regula-tion (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergen-cy Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration as-sociated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good La-boratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships car-rying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - Interna-tional Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International

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Maritime Organization; INCI: International Nomenclature of Cosmetic Ingredients; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; PNEC: Predicted No Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; STE: Short-term exposure; STEL: Short Term Exposure limit; STOT: Specific Target Organ Toxicity; TCSI - Taiwan Chemical Substance Inventory; TECL - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

DECLARATION OF ALLERGENS

7th Amendment to Directive 76/768/EC, annex III, part I (2003/15/EC)

I.N.C.I.	C.A.S.	%
Alpha-Hexyl cinnamic aldehyde	101-86-0	-
Amyl cinnamic alcohol	101-85-9	-
Amyl cinnamic aldehyde	122-40-7	-
Anisyl alcohol	105-13-5	-
Benzyl salicylate	118-58-1	-
Benzyl benzoate	120-51-4	-
Benzyl cinnamate	103-41-3	-
Benzyl alcohol	100-51-6	-
Cinnamic alcohol	104-54-1	-
Cinnamic aldehyde	104-55-2	-
Citral	5392-40-5	-
Citronellol	106-22-9	-
Coumarin	91-64-5	-
Eugenol	97-53-0	-
Farnesol	4602-84-0	-

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Geraniol	106-24-1	-
Hydroxycitronellal	107-75-5	-
Isoeugenol	97-54-1	-
alpha-Iso-methyl ionone	127-51-5	-
Limonene	5989-27-5	-
Linalool	78-70-6	-
Lyril	31906-04-4	-
Methyl heptine carbonate	12/06/11	-
Methyleugenol	93-15-2	-
Oakmoss absolute	9000-50-4	-
p-tert-Butyl-alpha- methylhydrocinnamic aldehyde	80-54-6	-

Disclaimer:

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.