

## Product Safety Data Sheet

### 1. Chemical and Business Identification

#### 1.1 Product Information

Name	ECTOIN
Uses	Cosmetic ingredient

#### 1.2 Supplier Information

Name	Zhejiang Seedling Biotechnology Co., Ltd.
Address	Room 401, Building 3, Yin Hai Science and Technology Innovation Center, Xiasha Street, Qiantang District, Hangzhou, Zhejiang Province
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Emergency Consultation Numbers	+86-571-85090787

### 2. Overview of Hazards

#### 2.1 Overview of Emergencies

May be harmful if swallowed or in contact with the skin. Consult your doctor. Present this safety data sheet to the doctor who is present at the scene. If inhaled, move the patient to fresh air; if breathing stops, ask a doctor for artificial respiration. Skin contact: Rinse with soap and plenty of water, consult a doctor. Eye contact: Rinse eyes with water with caution. Ingestion: Never feed the unconscious person, rinse the mouth with water, and consult a doctor.

#### 2.2 GHS Hazard Category

Acute toxicity, oral (category 5), H303

Acute toxicity, percutaneous (category 5), H313

#### 2.3 GHS Label Elements

Pictograms	Not applicable
Warning Words	Warn
Hazard Statement	H303+H313, may be harmful if swallowed or in contact with the skin.

#### 2.4 Precautionary Statement

Incident Response	P312 If you feel unwell, call an emergency center or doctor.
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#### 2.5 Physical and Chemical Hazards

There is no further information.

#### 2.6 Health Hazards

H303, may be harmful if swallowed. H313, skin contact may be harmful.

## 2.7 Environmental Hazards

There is no further information.

## 2.8 Other Hazards

There is no further information.

## 3. Composition/Composition Information

Substances/Mixtures	Substance
Molecular Formula	C <sub>6</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub>
Molecular Weight	142.16
CAS No.	96702-03-3
Mass Fraction, %	98.5~100.0

## 4. First Aid Measures

### 4.1 Description of the Necessary First Aid Measures

General Recommendations	Consult your doctor. Present this safety data sheet to the doctor who is present at the scene.
Inhale	If inhaled, move the patient to fresh air. If breathing stops, artificial respiration is given. Consult your doctor.
Skin-to-skin Contact	Rinse with soap and plenty of water. Consult your doctor.
Eye Contact	Rinse eyes with water with caution.
Ingestion	Never feed anything to an unconscious person. Rinse your mouth with water. Consult your doctor.

### 4.2 The Most Important Symptoms and Health Effects

No relevant information

### 4.3 Instructions and Instructions for Prompt Medical Treatment and Special Treatment Required

No relevant information

### 4.4 Special Tips for Doctors

No relevant information

## 5. Fire Protection Measures

### 5.1 Fire Extinguishing Medium

Fire Extinguishing Methods and Fire Extinguishing Agents	Extinguish the fire with water mist, alcohol-resistant foam, dry powder or carbon dioxide.
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### 5.2 Particular Hazards Arising from This Substance or Mixture

Carbon oxides, nitrogen oxides

### 5.3 Fire Extinguishing Precautions and Protective Measures

If necessary, wear a self-contained breathing apparatus for firefighting operations.

## 6. Emergency Treatment of Leaks

### 6.1 Personnel Protective Measures, Protective Equipment and Emergency Response Procedures

Use personal protective equipment. Avoid dust generation. Avoid inhaling vapors, aerosols, or gases. Avoid inhaling dust. For more information, please refer to Section 8 “Contact Control and Personal Protection”.

### 6.2 Environmental Protection Measures

There are no special environmental precautionary requirements.

### 6.3 Methods of Containment and Removal of Spilled Chemicals and Disposal Materials Used

Do not generate dust during collection and disposal. Sweep and shovel off. Place in a suitable closed container for disposal.

### 6.4 Preventive Measures to Prevent the Occurrence of Secondary Disasters

Make sure the work point is well ventilated. Use a fire extinguishing agent that is suitable for the surrounding fire environment. Disposal of solid substances or residues at a licensed location.

## 7. Handling, Disposal and Storage

### 7.1 Precautions for Safe Operation

Recommendations for Fire and Explosion Protection	Where dust is generated, provide suitable exhaust equipment.
Hygiene Measures	Operate in accordance with good industrial hygiene and safety practices. Wash your hands before and after work.

### 7.2 Conditions for Safe Storage

Storage Conditions	Store in a cool place. Keep the container tightly closed and store in a dry and ventilated place.
VCI Storage Level	Germany storage grade (TRGS 510): 13: Non-flammable solid

## 8. Contact Control and Personal Protection

### 8.1 Hazard Composition and Occupational Exposure Limits

Substances that do not contain occupational exposure limits.

### 8.2 Personal Protective Equipment

Eye Protection	Protect your eyes with equipment tested and approved by official standards such as NIOSH (United States) or EN 166 (EU).
Skin Protection	Wear gloves to pick up. Gloves must be inspected before use. Please remove the gloves using a suitable method (do not touch the outer surface of the gloves) and avoid any skin parts coming into contact with

	the product. After use, dispose of contaminated gloves with caution in accordance with relevant legal regulations and valid laboratory regulatory procedures. Wash and blow dry your hands. The protective gloves selected must comply with the specifications given in Regulation (EU) 2016/425 and the EN 374 standard derived from it.
Body Protection	Depending on the type, concentration and amount of hazardous substances, as well as the specific workplace, body protection measures are chosen. The type of protective equipment must be selected based on the concentration and quantity of hazardous materials in a particular workplace.
Respiratory Protection	There is no need to protect your breath. For protection against dust damage, use a dust mask type N95 (US) or type P1 (EN 143). Respirators use respirators and parts that have been tested and passed government standards such as NIOSH (US) or CEN (EU).
Control of Environmental Exposures	There are no special environmental precautionary requirements.

## 9. Physicochemical Properties

State	Crystal
Color	White to whitish
Smell	Characteristic odor
Melting Point/Freezing Point	No data available
Initial Boiling Point and Boiling Range	No data available
Flammability (solid, gas)	No data available
High/low Flammability or Explosiveness Limits	No data available
Flash Point	No data available
Autoignition Temperature	No data available
Decomposition Temperature	280°C
pH	6.0~8.0
Viscosity	No data available
Water Solubility	390g/L
n-octanol/Water Partition Coefficient	No data available
Vapor Pressure	No data available

Density	No data available
Vapor Density	No data available
Particle Properties	No data available
Explosive Characteristics	No data available
Oxidation	No data available

## 10. Stability and Reactivity

### 10.1 Stability

Stable under recommended storage conditions.

### 10.2 Dangerous Reactions

No data available

### 10.3 Conditions to Avoid

No data available

### 10.4 Prohibited Substances

Strong oxidizing agent

### 10.5 Dangerous Decomposition Products

When a fire breaks out: see Section 5 Fire Protection Measures

## 11. Toxicological Information

### 11.1 Toxicological Effects

Acute Toxicity	Acute toxicity (oral): LD50 rats (male and female) > 2000mg/kg Acute toxicity (percutaneous): LD50 rats (male and female) > 2000mg/kg Acute toxicity (inhalation): no data available
Skin Corrosion/Irritation	Rabbits: No skin irritation
Severe Eye Damage/Ocular Irritation	Rabbits: No eye irritation
Respiratory or Skin Sensitization	Guinea pigs: not allergic to test animals (OECD Test Guideline 406)
Germ Cell Mutagenicity	Type of test: Salmonella typhimurium Metabolic activation: with or without metabolic activation Result: Negative
Carcinogenicity	No data available
Reproductive Toxicity	No data available
Specific Target Organ System Toxicity (one)	No data available

exposure)	
Specific Target Organ System (repeated exposure)	No data available
Inhalation Hazards	No data available

### 11.2 Additional Notes

Toxicity of repeated exposure: Level of no observed harmful effects in rats (males and females): 300 mg/kg

## 12. Ecological Information

### 12.1 Ecotoxicity

Toxicity to Fish	LC50 Danio rerio (zebrafish) > 100 mg/L for 96h
Toxicity to Water Sludge and Other Aquatic Invertebrates	Static test: EC50 Daphnia magna (water soak) 100 mg/L for 48 h
Toxicity to Algae	Static EC50 Desmodesmus subspicatus (green algae) > 100 mg/L for 72 h
Toxicity to Bacteria	EC50 activated sludge >1000 mg/L for 3 h

### 12.2 Persistence and Degradability

No data available

### 12.3 Bioaccumulation Potential

No data available

### 12.4 Migration in Soils

No data available

### 12.5 Evaluation of Outcomes of PBT and vPvB

PBT/vPvB assessments are not available as chemical safety assessments are not required/carried out.

### 12.6 Endocrine Disrupting Properties

No data available

### 12.7 Other Harmful Effects of The Environment

No data available

## 13. Disposal

Products	Give the remaining and non-recyclable solution to a licensed company for disposal. It is miscible or mixed with flammable solvents and burned in a chemical incinerator equipped with post-combustion treatment and scrubbing.
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Contaminated Packaging	Dispose of it as unused product.
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**14. Shipping Information**

Carriage as non-dangerous goods.

**15. Regulatory Information**

Applicable Regulations	None
Miscellaneous	Please note that waste disposal should also meet the requirements of local regulations.

**16. Additional Information**

The information contained in this data sheet is information that the Company believes to be accurate, but it does not guarantee that it has been compiled by the Company itself. Users of this data sheet are advised to confirm whether this data sheet is currently applicable and whether it is suitable for its application environment before using it.