

SAFETY DATA SHEET

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Cellulase Onozuka R10
PRODUCT NUMBER: C224
COMPANY INFO: PhytoTech Labs Inc.
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EMERGENCY PHONE NUMBER: 1-800-535-5053 - US Only
(INFOTRAC): 1-352-323-3500 - International

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by PhytoTech Labs Inc. are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.


2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

GHS Classification:

- H315 – Skin irritation (Category 2)
- H318 – Serious eye damage (Category 2A)
- H335 – Specific Target Organ Toxicity, Respiratory System (Category 3)

GHS Label elements, including hazard and precautionary statements:

Pictogram:  Signal Word: **Danger**

Hazard Statements:

- H315 – Causes skin irritation
- H318 – Causes serious eye damage
- H335 – May cause respiratory irritation

Precautionary Statements:

- P202 – Do not handle until all safety precautions have been read and understood.
- P280 – Wear protective gloves/protective clothing/eye protection/face protection.
- P264 – Wash skin thoroughly after handling
- P301 + P310 + P330 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.
- P305 + P351 + P338 + P310 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
- P308 + P313 – IF exposed or concerned: Get medical advice/ attention.

Hazards not otherwise classified (HNOC) or not covered by GHS: - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: 1,4-(1,3;1,4)- β -D-Glucan 4-glucano-hydrolase
CAS No.: 9012-54-8

Ingredient	CAS No.	Percent	Hazardous
Cellulase	9012-54-8	>10,000 units/g	No exposure limits established by OSHA or ACGIH

4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention.
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation persists.

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.

Special Protective Equipment and Precaution for Firefighters: In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.

Hazardous Combustion Products: No data available

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid breathing vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Method of Containment and Cleanup: Clean-up personnel should wear proper protective equipment and clothing. Contain spilled material and do not let product enter drains. Soak up with inert absorbent material and place in a suitable, closed container for disposal in accordance with all local, state/provincial, and national requirements. Ventilate the area if necessary.

7. HANDLING AND STORAGE

Precaution for Safe Handling: Avoid contact with skin and eyes. Avoid incompatible substances. Wash thoroughly after use.

Conditions for Safe Storage: Keep in a tightly closed container and store in a cool, dry, and well-ventilated area. Light sensitive.

Incompatibilities: Strong oxidizing agent

Recommended Storage Temperature: 2-8°C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs): None

Threshold Limit Values (TLVs): None

Engineering Controls: Handle in accordance to general industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

Eye/Face Protection: Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.

Skin Protection: Use with gloves. Remove without touching glove's outer surface to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with Federal, State and Local laws. Wash and dry hands.

Body Protection: Complete suit protecting against chemicals, Select according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Tan to beige powder

pH: No data available

Solubility: Miscible with Water

Melting Point: No data available

Vapor Density: No data available

Vapor Pressure: No data available

Odor: No data available

Odor Threshold: No data available

Viscosity: No data available

Relative Density: No data available

Evaporation Rate: No data available

Initial Boiling Point and Boiling Range: No data available

Flammability (solid, gas): No data available

Partition coefficient: n-octanol/water: No data available

Auto-ignition Temperature: No data available

Decomposition Temperature: No data available

Flash Point (Closed Cup): No data available

Flammable Limits: Upper (%) – No data available Lower (%) – No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions of use

Possibility of Hazard Reactions: No data available

Conditions to Avoid: No data available

Incompatibles Materials: No data available

Hazardous Decomposition Products: No data available

11. TOXICOLOGICAL INFORMATION

Toxicity: LD₅₀ (Oral-Rat)(mg/Kg): No data available

LD₅₀ (Oral-Mouse)(mg/Kg): No data available

LD₅₀ (Dermal-Rabbit)(mg/Kg): No data available

Carcinogenicity: NTP: No

IARC: No

OSHA Reg: No

Reproductive Toxicity: No data available

Specific Target Organ Toxicity: Single Exposure: Respiratory tract and organs

Repeated Exposure: No data available

Target Organs: Respiratory tract and organs

Medical Conditions Aggravated by Exposure: The potential for an airway irritation by enzymes is known.

Routes of Entry: Inhalation, Ingestion

NIOSH/RTECS NO: Not Listed

The toxicological properties of this product have not been thoroughly investigated to the best of our knowledge

12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available

Persistence and Degradability: Biodegradable

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: No data available

13. DISPOSAL CONSIDERATION

Disposal Procedure: Dispose in accordance with all applicable federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

Domestic (D.O.T.): Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)

Hazard Class: N/A

UN: N/A

Labels: N/A

International:

IMDG: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)

Hazard Class: N/A

UN/NA: N/A

Labels: N/A

IATA: Proper Shipping Name: CHEMICALS, N.O.S. (NON-REGULATED)

Hazard Class:	N/A
UN:	N/A
Labels:	N/A

15. REGULATORY INFORMATION

TSCA: Yes

SARA TITLE III:

Section 302 (EHS) Ingredients: No

Section 313 Ingredients: No

Section 304 (EHS/CERCLA) Ingredients: No

Section 311/312 Hazard: No

Massachusetts Right to Know Components: This product does not contain components listed on the Massachusetts Toxic or Hazardous Substance List (301 CMR 41.00).

Pennsylvania Right to Know Components: This product does not contain components listed on the Pennsylvania Code Hazardous Substance List (Chapter 323).

New Jersey Right to Know Components: This product does not contain components listed amongst the New Jersey Right to Know Hazardous Substance Fact Sheets.

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive toxicity

16. OTHER INFORMATION

PhytoTech Labs Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. The above information is intended to be used only as a guide to the appropriate precautionary handling of this material by a properly trained person. PhytoTech Labs Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.

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