# Rhamnogalacturonan Lyase from Clostridium thermocellum, Recombinant

Not for Private Therapeutic Use!

## 1. Identification of the Substance/preparation and of the company/undertaking

1.1 Identification of the Product: Rhamnogalacturonan Lyase from Clostridium thermocellum, Recombinant (NATE-1564)

1.2 Manufacture/Supplier Identification:

Creative Enzymes
45-1 Ramsey Road Shirley, NY 11967, USA
Tel: 1-631-562-8517
1-516-512-3133
Fax: 1-631-938-8127
E-mail: info@creative-enzymes.com
Website: www.creative-enzymes.com

1.3 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: For research use only, not for human or veterinary use.

1.4 Emergency telephone number

Emergency Phone #: +1-800-424-9300 (CHEMTREC Within USA and Canada)
+1-703-527-3887 (CHEMTREC Outside USA and Canada)

## 2. Hazards Identification

Physical/chemical hazards :n/a

Human health hazards: Not specific hazard

## 3. EC No. / CAS No.

**EC No.:**EC 4.2.2.-

**CAS No.:**

## 4. First Aid Measures

4.1 Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

4.2 Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an Unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosentight clothing such as a collar, tie, belt or waistband.

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4.3 Skin contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

4.4 Eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

4.5 Aggravating conditions : Repeated of prolonged exposure is not known to aggravated medical condition.

## 5. Fire Fighting Measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Fire Fighting Instructions

Wear self-contained breathing apparatus for firefighting if necessary, and full protective gear to prevent contact with skin and eyes.

## 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. As conditions warrant, wear a NOISH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

6.2 Environmental precautions

Do not let product enter drains. Take steps to avoid release into the environment, if safe to do so.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal in accordance with local regulations.

## 7. Handling and Storage

7.1 Precautions for safe handling: This material is believed to be non-hazardous. Avoid inhalation, and contact with eyes, skin and clothing. Avoid repeated or prolonged exposure. Wear protective clothing.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in accordance with information listed on the product insert.

## 8. Exposure Controls / Personal Protection

Eye protection: Wear goggles or safety glasses.

Hand protection: Wear latex or vinyl gloves.

Respiratory protection: Required when vapors/aerosols are generated.

Ventilation: Use in well-ventilated laboratory.

Other protective equipment: Use lab coat or apron to prevent contact with eyes, skin and clothing.

## 9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance Form:

Odour: no data availabl

Odour Threshold: no data available

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): no data available

Upper/lower flammability or explosive limits: no data available

Vapour pressure: no data available

Vapour density: no data available

Relative density: no data available

Water solubility: Soluble upon reconstitution

Auto-ignition temperature: no data available

Decomposition temperature: no data available

Viscosity: no data available

Explosive properties: no data available

Oxidizing properties: no data available

9.2 Other safety information

no data available

## 10. Stability and Reactivity

10.1 Reactivity: no data available

10.2 Chemical stability: The product is stable under recommended storage conditions.

10.3 Conditions to avoid: Not available.

10.4 Incompatible materials: no data available

10.5 Hazardous decomposition products

Other decomposition products - no data available

Hazardous decomposition products: CO2, CO, oxides of nitrogen.

## 11. Toxicological Information

Quantitative data on the toxicity of this product is not available. No toxic effects are to be expected when the product is handled appropriately.

## 12. Ecological Information

12.1 Toxicity: no data available

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: no data available

12.6 Other adverse effects: no data available

## 13. Disposal Considerations

Contact professional waste disposal companies for proposal disposal.

## 14. Transport Information

Not subject to transport regulations.

DOT (US) Not dangerous goods

IMDG Not dangerous goods

IATA Not dangerous goods

## 15. Regulatory Information

This product is not a hazardous material.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

## 16. Other Information

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.