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*MATERIAL SAFETY DATA SHEET*

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## Section 1: Product Information

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Product Name: Lysobac™ (Human Lysozyme)  
Product ID: 777LYS016

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## Section 2: Composition / Information on Ingredients

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Substance Name: Recombinant Human Lysozyme from Rice Grain  
CAS Number: 12671-19-1  
E.C. 3.2.1.17  
Composition: Proteins and salt

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## Section 3: Hazards Identification

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### Potential Health Effects

#### Eye

Dust may cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

#### Skin

Unlikely to cause skin irritation or injury.

#### Swallowing

Swallowing this material is not likely to be harmful.

#### Inhalation

This material is a powder and may produce dust. Breathing small amounts of this material is not likely to be harmful.

#### Symptoms of Exposure

No data

#### Target Organ Effects

No data

#### Developmental Information

There is no data available for assess risk to the fetus from maternal exposure to this material

#### Cancer Information

There is no information available. The chance of this material causing cancer is unknown. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.



**Other Health Effects**

This material can form dust which may cause skin or mucous membrane irritation. Symptoms include redness, burning and swelling. Although they may cause respiratory tract irritation, nuisance dusts do not form scar tissue or affect the structure of air spaces in the lungs. Their effects on the tissues are potentially reversible.

**Primary Route(s) of Entry**

Inhalation, Skin contact, Eye contact

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Section 4: First Aid Measures

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**Oral Exposure**

First aid is not normally required. If symptoms develop, seek medical attention.

**Inhaled Exposure**

If symptoms develop, move the individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek medical attention.

**Dermal Exposure**

First aid is not normally required. However, it is recommended that exposed area be cleaned by washing with soap and water.

**Eye Exposure**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

**Note to Physicians**

No data

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Section 5: Fire Fighting Measures

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**Autoignition temp:** Unknown

**Flammability:** Non-combustible

**Extinguishing Media:** Use extinguishing media appropriate to surrounding fire conditions.



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**Firefighting:** For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of the normal products of combustion or oxygen deficiency.

**NFPA Rating**

Health – 1, Flammability – 0, Reactivity – 0

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### Section 6: Accidental Release Measures

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**Small Spill:** Sweep up material for disposal or recovery

**Large Spill:** Shovel material into containers. Thoroughly sweep area of spill, can use moisture to clean up residual material.

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### Section 7: Handling and Storage

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There are no known problems with this material related to handling or storage at room temperature. Store in a cool dry place.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet facilities.

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### Section 8: Exposure Controls / Personal Protection

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**Engineering Controls:** Mechanical Exhaust required.

**Personal Protective Equipment:**

Respiratory: NIOSH/MSHA-approved respirator

Hand: Compatible, chemical resistant gloves

Eye: Chemical safety goggles

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### Section 9: Physical / Chemical Properties

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<u>Property</u>	<u>Value</u>
<b>Appearance:</b>	Off white powder
<b>Physical State:</b>	Solid
<b>Molecular Weight:</b>	~ 14 kD



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## Section 10: Stability and Reactivity

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**Stability:** Stable at 4° C for greater than 12 months.

**Hazardous Decomposition Products:** Unknown

**Hazardous Polymerization:** Will not occur

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## Section 11: Toxicological Information

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The toxicological properties of this material have not been tested and identified. It is unlikely that there will be any toxicological problems with this material. However, appropriate precautions should be taken for a material with "unknown" toxicological properties.

**Routes of Exposure:** Harm caused by inhalation, ingestion, or skin absorption is undetermined.

**Conditions Aggravated by Exposure:** The toxicological properties have not been thoroughly investigated.

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## Section 12: Ecological Information

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The material is no longer viable as rice seed and therefore cannot be grown in a field. Containment measures should be used to prevent unintended release of the material into the environment. Measures should also be used to prevent unintended mixing of this material with other materials. No ecological data is available for this material.

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## Section 13: Disposal Considerations

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Observe all federal, state, and local environmental regulations.

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## Section 14: Transport Information

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Transport Hazard: This substance is considered to be non-hazardous for transport.



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## Section 15: Regulatory Information

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Lysobac is designated as Generally Recognized As Safe (GRAS).  
Questions regarding this material should be directed to InVitria.

Phone: (800) 916-8311 Fax: (785) 238-5688

Address: 2718 Industrial Drive  
Junction City, KS 66441 USA

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## Section 16: Other Information

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ISO:9001 certified

**Warranty:** The above information is believed to be correct but doesn't purport to be all inclusive and shall be used only as a guide. InVitria shall not be held liable for any damage resulting from handling or from contact with the above product.