

EPICENTRE BIOTECHNOLOGIES
726 Post Road, MADISON WI 53713
Emergency Tel: 608-258-3080 or 800-284-8474 7:30-4:30 Central
MATERIAL SAFETY DATA SHEET
 Effective: 7/2010

Section 1: Chemical Identification

The products represented by Epicentre catalog numbers M8202K and M8205K are aqueous solutions containing Mung Bean Nuclease enzyme in 50% glycerol. A Safety Data Sheet is available for glycerol. The enzyme is provided with 10X Mung Bean Reaction Buffer which contains sodium acetate and other constituents that have no significant hazards and are present in concentrations below 1%. A Safety Data Sheet is provided for sodium acetate, pH 4.6.

Description: The enzyme is derived from sprouts of the mung bean Phaseolus aureus. The enzyme is not known to be hazardous to humans or laboratory animals. Epicentre recommends all normal precautions be taken whenever all hazards are not known.

<u>Component</u>	<u>CAS No</u>	<u>EC#</u>	<u>% Wt</u>
Mung Bean Nuclease	N/A	N/A	<0.1%

Section 2: Composition and Information on Hazardous Ingredients

See safety data sheets for glycerol and sodium acetate

Section 3: Hazards Identification

Appearance: Clear viscous Solution.

Eye: Not available

Skin: Not available

Ingestion: Not available

Inhalation: Not available

Carcinogenic, Tetratogenic, Mutagenic Effects and Developmental Toxicity not available.

Section 4: First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15-20 minutes, occasionally lifting upper and lower eyelids. Obtain medical assistance. Remove contact lenses before treatment.

Skin: Obtain medical assistance. Flush skin with plenty of water for at least 15-20 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Obtain medical assistance. Do **not** induce vomiting unless directed by medical person. If conscious & alert, rinse mouth and drink 2-4 cupfuls water. Wash mouth out with water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical assistance.

Section 5: Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand mode, MSHA/NIOSH (approved or equivalent), and wear full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Runoff from fire control or dilution water may cause pollution.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistance foam. Use agent most appropriate to extinguish the fire.

Flash point, Flammable Limits: Not available

Autoignition temperature: Not available

Explosion Limits, Lower and Upper: Not available No Special Remarks Available for fire or explosion hazards.

Section 6: Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions given in Section 8. If liquid evaporates, avoid dusty conditions. Provide ventilation. Follow local, regional and national disposal regulations and requirements. Avoid direct contact with skin or eyes.

Section 7: Handling and Storage

Epicentre recommends all normal precautions be taken whenever all hazards are not known. We recommend wearing gloves and avoiding direct contact with skin and eyes when handling chemical and biological solutions.

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Avoid heat. Store in a cool, dry, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering controls: Facilities storing or using this material should be equipped with an eyewash facility and safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

Exposure limits: No OSHA Final or vacated PELs, not NIOSH or ACGIH listed. Avoid repeated exposure.

Respiratory protection: Follow respirator rules 29CFR1910.134, European Standard EN149 or other appropriate standard. Use a NIOSH/MSHA or European EN 149 approved respirator if irritation or other symptoms are experienced.

Personal Protective Equipment: Wear appropriate clothing and gloves to prevent skin exposure. Wear protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29CFR1910.133 or EN 166.

Section 9: Physical and Chemical Properties

Physical state: liquid; dissolved powders

Appearance: Clear viscous solution

Odor: Not available

pH: ~7

vapor pressure and density: Not available

Evaporation rate: Not available

Viscosity: Not available

Boiling point: Not available

Melting point of undissolved solid: Not available

Decomposition temperature: Not available

Specific gravity: Not available

Section 10: Stability and Reactivity

Stability: Stable

Incompatibility: None known

Hazardous decomposition products: Not available

Hazardous polymerization: Will not occur

Sections 11, 12, 15: Toxicological, Ecological and Regulatory Information

Acute Effects: Not available

Chronic Effects: Not available

Irritation Data: Not available

Toxicity Data: Not available

Target Organ Data: Not available

Section 13: Disposal Considerations

Dispose material and container in accordance with appropriate federal, state and local laws and regulations. Recover and recycle if possible. Processed material may require different disposal methods.

Section 14: Transport Information

No special considerations are known.

Section 16: Other Information

The information herein is based on information from suppliers believed to be reliable; however, EPICENTRE makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages thereto. This document is offered solely as a guide for the customer's consideration, investigation and verification. These suggestions do not replace state, municipal and/or insurance requirements. Any use of this information must be determined by the user to be in accordance with applicable Federal, state and local regulations.