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MATERIAL SAFETY DATA SHEET

Section 1. Company Identification and Product Information			
Product Name or Identity:	**Gliadin Cocktail Solution for Heat Processed Samples**		
Manufacturer's Name:	**Neogen Corporation**	**Emergency Phone No.:**	517/372-9200
	620 Lesher Place	**Fax No.:**	517/372-0108
	Lansing, MI 48912	**e-mail:**	foodsafety@neogen.com
Date Prepared or Revised: March 2008		**Chemtrec: (800) 424-9300** **Outside US and Canada: (703) 527-3887**	

Section 2. Composition / Information on Hazardous Ingredients			
This product is a mixture of the substances listed below with the addition of nonhazardous materials.			
Hazardous Components Specific Chemical Identity:	**CAS-No.**	**%**	**Hazard Symbol**
Guanidine Hydrochloride	50-01-1	19.0%	T (Toxic)
2-Mercaptoethanol	60-24-2	1.75%	Xn (Harmful)

Section 3. Health Hazard Identification	
Health Hazards: *(Acute and Chronic)*	**Information pertaining to particular dangers for man and environment.** R 23 / 25, Toxic by inhalation and if swallowed. R 36 / 38, Irritating to eyes and skin.

Section 4. First Aid Measures	
Emergency / First Aid Procedures:	**Ingestion:** If swallowed, seek medical attention immediately. Wash out mouth with water, provided person is conscious. Show physician product label. Never give anything by mouth to an unconscious person.
	Inhalation: If inhaled, supply fresh air or oxygen. Seek medical attention if breathing because difficult or labored. If not breathing, apply artificial respiration.
	Eye Contact: Rinse opened eye for at least 15 minutes under running water, lifting lower and upper eyelids occasionally. Seek medical attention immediately.
	Skin Contact: Remove contaminated clothing. Immediately wash with plenty of soap and water for at least 15 minutes. Seek medical attention. Wash clothing before reuse.

Section 5. Fire and Explosion Hazard Data	
Flash Point (Method Used): N/A	**Flammable Limits**: LEL – N/A UEL – N/A
Extinguishing Media: Use water spray, dry chemical, appropriate foam, or carbon dioxide.	
Protective Equipment: Firefighters should wear protective equipment and self-contained breathing apparatus.	
Unusual Fire and Explosion Hazards: During heating or in case of fire, poisonous gases are produced. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source, is a potential dust explosion hazard.	

NEOGEN CORPORATION

Section 6. Accidental Release Measures

Personal Precautions: Wear suitable protective clothing, gloves, and eye protection. Wear self-containing breathing apparatus, rubber boots, and heavy rubber gloves. Place contaminated material in a chemical waste container.

Environmental Precautions: Prevent dispersion of material. Wipe up with damp sponge or mop.

Clean-up Methods: Avoid prolonged or repeated exposure. Absorb material, ventilate area, and wash spill site after material has been cleaned up. Avoid inhalation, contact with eyes and skin. Prevent formation of dust. Contact safety officer if questions arise.

Section 7. Handling and Storage

Handling: Protect against physical damage. Ensure good ventilation / exhaustion and do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Do not use if skin is cut or scratched.

Storage: Keep container tightly closed. Keep away from heat, sparks, flame and incompatible material. Storage area should be cool, dry, and away from incompatible materials. Containers of this material may be hazardous when empty since they retain product residues.

Other Precautions: Keep respiratory protective device available.

Section 8. Exposure Controls / Personal Protection

Components with limit values that require monitoring:
Guanidine Hydrochloride (50-01-1)

OSHA–PEL: 200 ml/m^3 (ppm) Guanidine Hydrochloride, 100%	**TLV: N/A**

Additional Information: Personal Protection listed below are general requirements for laboratory personnel. Follow the usual precautionary measures for handling chemicals / powder. Avoid contact with eyes, skin, and clothing. In the event of use above flash point, use in closed systems. Do not use compressed air by filling, discharging or handling the product. Proper ventilation required. Safety shower and eye bath. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment:
Keep away from food, beverages, and feed.
Wash hands before and after entering laboratory.
Immediately remove all soiled and contaminated clothing.
Avoid contact with eyes and skin.

Breathing Equipment: In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respiratory.

Hand Protection: Use chemical resistant gloves.

Eye Protection: Wear safety glasses.

Body Protection: Wear lab coat or other protective work clothing.

Section 9. Physical and Chemical Properties

Appearance and Odor: Liquid

Boiling Point: Not determined

Melting Point: Not determined

Density: Not determined

NEOGEN CORPORATION

Section 10. Stability and Reactivity			
Stability:	Unstable		
	Stable	X	Conditions to Avoid: Avoid heat, sources of ignition, shock, and friction. Sensitive to moisture.
Incompatibility *(Materials to Avoid)*: Incompatible with strong oxidizing agents and metals.			
Hazardous Decomposition or Byproducts: Hydrogen chloride, Carbon dioxide, Carbon monoxide, and Nitrogen oxides.			
Hazardous Polymerization:	May Occur		Conditions to Avoid: Incompatible materials.
	Will Not Occur	X	

Section 11. Toxicological Information

LD/LC50 values that are relevant:
LD_{50}: ORL-RAT, 244 mg/kg (2-Mercaptoethanol)

Carcinogenicity Classification:
IARC (International Agency for Research on Cancer) – Not Listed
NTP (National Toxicology Program) - Not Listed

Eye: Produces irritation, characterized by a burning sensation, redness, tearing, and inflammation.
Ingestion: May cause gastrointestinal irritation with nausea and vomiting.
Inhalation: Harmful if inhaled. May cause a burning sensation, coughing, wheezing, laryngitis, shortness of breath, and headache.
Chronic: Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion.
Additional toxicological information: Harmful. Irritant.

Section 12. Ecological Information

Ecotoxicity Tests:
Water Hazard Class 1: Slightly hazardous for water. The ecological effects have not been thoroughly investigated, but currently none have been identified.

Section 13. Disposal Considerations

Waste Disposal Method: Dispose in accordance with all applicable federal (40 CFR 261.3), state, and local environmental regulations.
RCRA P-Series: None listed
RCRA U-Series: None listed
Contact a licensed professional waste disposal service to dispose of this material if questions arise.

Container Information: Do not remove labels from containers until they have been cleaned.

Section 14. Transport Information

DOT Regulations:
Not Regulated

Land Transport ADR/RID (cross-border):
Not Regulated

Maritime Transport IMDG:
Not Regulated

Air Transport ICAO-TI and IATA-DGR:
Not Regulated

Section 15. Regulatory Information

EU Regulations, Hazard Symbol(s):

Guanidine Hydrochloride: T (Toxic)

2-Mercaptoethanol: Xn (Harmful)

Risk Phrases:

R 23 / 25, Toxic by inhalation and if swallowed.

R 36 / 38, Irritating to eyes and skin.

Safety Phrases:

S7, Keep container tightly closed.

S 16, Keep away from ignitable materials.

S 24 / 25, Avoid contact with eyes and skin.

S 26, In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36, Wear suitable protective clothing.

Section 16. Other Information

This document is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. Neogen Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with state, municipal or insurance requirements, and constitute NO WARRANTY.