



## Material Safety Data Sheet

United States  
English

## Section 1. Chemical product and company identification

Product name	Recombinant Glutathione S-transferase; part of 'GST 96 Well Detection Module, 5 plates'		
Catalogue Number	27-4592-01	 9 0 2 7 4 5 9 2 0 1	
Component Number	274573		
Material uses	Industrial applications: Analytical chemistry. Research.		
Product type	 Liquid.		
Validation date	9 September 2011		
Print date	09 September 2011		
Supplier	GE Healthcare UK Ltd Amersham Place Little Chalfont Buckinghamshire HP7 9NA England +44 0870 606 1921		
<u>In case of emergency</u>	US	ChemTrec (US)	1-800-424-9300
	Canada	ChemTrec (US)	1-703-527-3887

## 2. Hazards identification

Physical state	Liquid.
Odor	Odorless.
OSHA/HCS status	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Emergency overview	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
Routes of entry	Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
Eyes	No known significant effects or critical hazards.
Skin	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
<b>Potential chronic health effects</b>	
Chronic effects	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.
Inhalation	No specific data.
Ingestion	No specific data.
Skin	No specific data.
Eyes	No specific data.
Medical conditions aggravated by over-exposure	None known.



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### 3. Composition/information on ingredients

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### Section 4. First aid measures

<b>Eye contact</b>	✓ Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
<b>Skin contact</b>	✓ In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
<b>Inhalation</b>	✓ Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
<b>Ingestion</b>	✓ Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	✓ No action shall be taken involving any personal risk or without suitable training.

### Section 5. Fire-fighting measures

<b>Flammability of the product</b>	✓ In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Extinguishing media</b>	
<b>Suitable</b>	✓ Use an extinguishing agent suitable for the surrounding fire.
<b>Not suitable</b>	✓ None known.
<b>Special exposure hazards</b>	✓ Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

### Section 6. Accidental release measures

<b>Personal precautions</b>	✓ No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment (see Section 8).
<b>Environmental precautions</b>	✓ Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b>Methods for cleaning up</b>	✓ Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.
<b>Small spill</b>	✓ Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

### Section 7. Handling and storage

<b>Handling</b>	✓ Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.
<b>Storage</b>	✓ Do not store above the following temperature: -20°C (-4°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.



## Section 8. Exposure controls/personal protection

### Consult local authorities for acceptable exposure limits.

<b>Recommended monitoring procedures</b>	<input checked="" type="checkbox"/> If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
<b>Engineering measures</b>	<input checked="" type="checkbox"/> No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
<b>Hygiene measures</b>	<input checked="" type="checkbox"/> Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Personal protection</b>	
<b>Respiratory</b>	<input checked="" type="checkbox"/> Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
<b>Hands</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
<b>Eyes</b>	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
<b>Skin</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
<b>Environmental exposure controls</b>	<input checked="" type="checkbox"/> Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## Section 9. Physical and chemical properties

<b>Physical state</b>	Liquid.
<b>Flash point</b>	<input checked="" type="checkbox"/> [Product does not sustain combustion.]
<b>Color</b>	Colorless.
<b>Odor</b>	Odorless.
<b>Volatility</b>	<input checked="" type="checkbox"/> 0% (v/v), 0% (w/w)
<b>VOC</b>	<input checked="" type="checkbox"/> 0% (w/w) [ISO 11890-1]
<b>Solubility</b>	<input checked="" type="checkbox"/> Easily soluble in the following materials: cold water and hot water.

## Section 10. Stability and reactivity

<b>Stability</b>	<input checked="" type="checkbox"/> The product is stable.
<b>Possibility of hazardous reactions</b>	<input checked="" type="checkbox"/> Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions of reactivity</b>	<input checked="" type="checkbox"/> Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture. <input checked="" type="checkbox"/> Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts, oxidizing materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture.

## Section 11. Toxicological information

### Sensitizer

<b>Conclusion/Summary</b>	Not available.
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## Section 12. Ecological information

<b>Environmental effects</b>	<input checked="" type="checkbox"/> No known significant effects or critical hazards.
<b><u>Aquatic ecotoxicity</u></b>	
<b>Conclusion/Summary</b>	<input checked="" type="checkbox"/> Not available.
<b><u>Biodegradability</u></b>	
<b>Conclusion/Summary</b>	Not available.
<b>Other adverse effects</b>	<input checked="" type="checkbox"/> No known significant effects or critical hazards.



## Section 13. Disposal considerations

### Waste disposal

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

### International transport regulations

Not classified.



## Section 15. Regulatory information

### HCS Classification

Not regulated.

### U.S. Federal regulations

**TSCA 8(a) IUR Exempt/Partial exemption:** Not determined

**United States inventory (TSCA 8b):** All components are listed or exempted.

**SARA 302/304/311/312 extremely hazardous substances:** No products were found.

**SARA 302/304 emergency planning and notification:** No products were found.

**SARA 302/304/311/312 hazardous chemicals:** No products were found.

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:** No products were found.

### Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)

Not listed

### Clean Air Act Section 602 Class I Substances

Not listed

### Clean Air Act Section 602 Class II Substances

Not listed

### DEA List I Chemicals (Precursor Chemicals)

Not listed

### DEA List II Chemicals (Essential Chemicals)

Not listed

### State regulations

#### Massachusetts

None of the components are listed.

#### New York

None of the components are listed.

#### New Jersey

None of the components are listed.

#### Pennsylvania

None of the components are listed.

### California Prop. 65

### United States inventory (TSCA 8b)

All components are listed or exempted.

### International regulations

#### International lists

**Australia inventory (AICS):** All components are listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

**Japan inventory:** All components are listed or exempted.

**Korea inventory:** All components are listed or exempted.

**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.

**Philippines inventory (PICCS):** All components are listed or exempted.



Chemical Weapons Convention List Schedule I Chemicals	Not listed
Chemical Weapons Convention List Schedule II Chemicals	Not listed
Chemical Weapons Convention List Schedule III Chemicals	Not listed

Section 16. Other information

**Label requirements** NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

The customer is responsible for determining the PPE code for this material.

National Fire Protection  
Association (U.S.A.)

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Health

Flammability

Instability

Special

 Indicates information that has changed from previously issued version.

History

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.