

## 1. Product and Company Identification

<b>Material name</b>	<b>Glucose Oxidase L150</b>
<b>Version #</b>	01
<b>Issue date</b>	03-07-2013
<b>Revision date</b>	-
<b>Supersedes date</b>	-
<b>CAS #</b>	Mixture
<b>Product code</b>	GLOX-70-6599
<b>Product use</b>	Used in the manufacture of glucose monitoring reagents and devices.
<b>Manufacturer information</b>	
<b>Corporate Headquarters</b>	Sekisui Diagnostics, LLC 31 New York Avenue, Framingham, MA 01701 USA www.sekisuidiagnostics.com Phone: 800-332-1042 Americas 1-760-476-3962
<b>Emergency Telephone Numbers</b>	Europe, Middle East & Africa +1-760-476-3961 Asia Pacific +1-760-476-3960 Access code 333512

## 2. Hazards Identification

<b>Physical state</b>	Liquid.
<b>Appearance</b>	Yellow to brown liquid.
<b>Emergency overview</b>	WARNING  May cause allergic respiratory reaction. The chemical, physical and toxicological properties of this preparation have not been thoroughly characterized.
<b>OSHA regulatory status</b>	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Routes of exposure</b>	Inhalation. Eye contact. Skin contact.
<b>Eyes</b>	May cause itching and redness.
<b>Skin</b>	Contact may cause irritation, redness and/or drying.
<b>Inhalation</b>	May cause respiratory tract irritation. May cause allergic respiratory reaction. Although there is no evidence that the enzyme(s) in this preparation induces specific respiratory hypersensitivity, all proteins are potential respiratory allergens and may result in respiratory sensitization in certain individuals after repeated and/or prolonged inhalation exposure, producing mild to severe symptoms similar to pollen allergy or asthma, including mucous membrane or eye irritation, itching of the skin or eyes, sneezing, nasal or sinus congestion, coughing, and tightness in the chest. These symptoms may develop as late as 12 hours after exposure.
<b>Ingestion</b>	Ingestion may cause irritation and malaise.
<b>Target organs</b>	Respiratory system
<b>Chronic effects</b>	Inhalation may result in respiratory sensitization.
<b>Signs and symptoms</b>	Irritation of eyes and mucous membranes.
<b>Potential environmental effects</b>	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
Glucose oxidase	9001-37-0	4 - 7

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First Aid Measures

### First aid procedures

<b>Eye contact</b>	In case of contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.
<b>Skin contact</b>	For skin contact flush with large amounts of water while removing contaminated clothing. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a physician if symptoms develop or persist.
<b>Ingestion</b>	If material is ingested, immediately contact a poison control center.
<b>Notes to physician</b>	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
<b>General advice</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	This product is not flammable.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Extinguish with foam, carbon dioxide or dry powder.
<b>Unsuitable extinguishing media</b>	Do not use water jet.
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	None known.
<b>Protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>Hazardous combustion products</b>	Fire will generate toxic and irritating gases.

## 6. Accidental Release Measures

<b>Personal precautions</b>	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors and contact with skin and eyes.
<b>Environmental precautions</b>	Do not allow to enter drains, sewers or watercourses.
<b>Methods for containment</b>	Absorb spillage with non-combustible, absorbent material.
<b>Methods for cleaning up</b>	Scoop up released material. Decontaminate the spill site following standard procedures for biohazardous, chemical spills.
<b>Other information</b>	Absorb small leaks or spills with sponge, mop up large spills with plenty of soap and water. Clean up in accordance with all applicable regulations.

## 7. Handling and Storage

<b>Handling</b>	Do not breathe mist or vapor. Avoid contact with skin and eyes. Persons susceptible for allergic reactions should not handle this product. Wash thoroughly after handling. In case of insufficient ventilation, wear suitable respiratory equipment. Handle and open container with care.
<b>Storage</b>	Store in a closed container away from incompatible materials. Store at 2-8°C (35-46°F).

## 8. Exposure Controls / Personal Protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Exposure guidelines</b>	Follow standard monitoring procedures.
<b>Engineering controls</b>	Use local exhaust ventilation. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Wear approved safety glasses or goggles.
<b>Skin protection</b>	Wear lab coat or other protective garments. Remove contaminated clothing promptly.

**Respiratory protection**

Under normal conditions, respirator is not normally required. Wear NIOSH approved respirator appropriate for airborne exposure at the point of use.

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

<b>Appearance</b>	Yellow to brown liquid.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Yellow to brown.
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	5
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Boiling point</b>	Not available.
<b>Melting point/Freezing point</b>	Not available.
<b>Solubility (water)</b>	Soluble.
<b>Specific gravity</b>	Not available.
<b>Flash point</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable under normal storage and handling conditions.
<b>Conditions to avoid</b>	None known.
<b>Incompatible materials</b>	None known.
<b>Hazardous decomposition products</b>	By heating and fire, irritating vapors/gases may be formed.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

<b>Sensitization</b>	May cause allergic respiratory reaction.
<b>Acute effects</b>	May cause discomfort if swallowed.
<b>Chronic effects</b>	Inhalation may result in respiratory sensitization.
<b>Carcinogenicity</b>	Not classified.
<b>Epidemiology</b>	No epidemiological data is available for this product.
<b>Mutagenicity</b>	No data available.
<b>Reproductive effects</b>	No data available.
<b>Symptoms and target organs</b>	Contact may cause irritation and redness.
<b>Further information</b>	No other specific acute or chronic health impact noted.

## 12. Ecological Information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulation / Accumulation</b>	Not available.

**Mobility in environmental media**

The product is soluble in water.

### 13. Disposal Considerations

**Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contaminated instruments and surfaces should be disinfected in accordance with your employer's chemical-specific and universal/standard precautions.

**Waste from residues / unused products**

Dispose in accordance with all applicable regulations. Contract with a licensed chemical disposal agency.

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport Information

**DOT**

Not regulated as a hazardous material by DOT.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

**TDG**

Not regulated as dangerous goods.

### 15. Regulatory Information

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)**

None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance (40 CFR 355, Appendix A)**

No

**Section 311/312 (40 CFR 370)**

Yes

**Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)**

Not controlled

**Canadian regulations**

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

**WHMIS status**

Controlled

**WHMIS classification**

D2A - Other Toxic Effects-VERY TOXIC

**WHMIS labeling**



**Inventory status**

**Country(s) or region**

United States & Puerto Rico

**Inventory name**

Toxic Substances Control Act (TSCA) Inventory

**On inventory (yes/no)\***

Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

Not regulated.

**Mexico regulations** This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

## 16. Other Information

**Recommended restrictions** Use in accordance with supplier's recommendations.

**Further information** HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings**

Health: 2\*  
Flammability: 0  
Physical hazard: 0

**NFPA ratings**

Health: 2  
Flammability: 0  
Instability: 0

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