

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: EnzyChrom™ Glutathione Reductase Assay
Item Number: ECGR-100
Manufacturer: BioAssay Systems
 3191 Corporate Place
 Hayward, CA 94545, USA
 Tel: 510-782-9988; Fax: 510-782-1588
 Email: info@bioassaysys.com

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Skin irritant, Category 3
 Acute toxicity, Oral (Category 4)
 Skin irritation (Category 2)
 Eye irritation (Category 2A)
 Specific target organ toxicity-single exposure (Category 3)

GHS Label elements, including precautionary statements**Pictogram**

Signal word: Warning

Hazard statements

H315: Causes skin irritation.
 H319: Causes eye irritation.
 H335: May cause respiratory irritation.

Precautionary statements

P201: Obtain special instructions before use.
 P202: Do not handle until all safety precautions have been read and understood.
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264: Wash hands thoroughly after handling.
 P280: Wear protective gloves/clothing and eye/face protection.
 P281: Use personal protective equipment as required.
 P302 + P352: *If on skin:* wash with plenty of soap and water.
 P304 + P340: *If inhaled:* Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305 + P351 + P338: *If in eyes:* Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312: Call a doctor/ physician if you feel unwell.
 P332 + P313: *If skin irritation occurs:* Get medical advice/ attention.
 P337 + P313: *If eye irritation persists:* Get medical advice/ attention.
 P501: Dispose of contents/container to an approved waste disposal plant.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

This product contains the following components and mixture of the following substances with non-hazardous additions.

Assay Buffer: 10 mL liquid.

Non-hazardous

GDH: 120 µL liquid.

Non-hazardous

Substrate: 1 mL liquid.

Non-hazardous

Cosubstrate: 1 mL liquid.

DTNB: 60 µL liquid.

Contains 5,5'-Dithiobis(2-nitrobenzoic acid) (CAS#: 69-78-3)

Calibrator: 1.5 mL liquid.

Non-hazardous

SECTION 4. FIRST AID MEASURES

Eye: Eye irritation. Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get immediate medical attention.

Skin: Itching or burning of the skin. Immediately flush the skin with plenty of water while removing contaminated clothing and shoes. Get immediate medical attention. Wash contaminated clothing before reuse.

Inhalation: Nasal irritation, headache, dizziness, nausea, vomiting, heart palpitations, breathing difficulty, cyanosis, tremors, weakness, red flushing of face, irritability. Remove exposed person from source of exposure to fresh air. If not breathing, clear airway and start cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth resuscitation.

Ingestion: Get immediate medical attention. Do not induce vomiting unless directed by medical personnel.

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing media: water spray, carbon dioxide, dry chemical powder or appropriate foam.

Special firefighting procedures: wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosion hazards: emits toxic fumes under fire conditions.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Vapor protective clothing should be worn for spills and leaks. Shut off ignition sources; no flares, smoking or flames in hazard area. Small spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal. Large spills: Dike far ahead of liquid spill for later disposal. Do not flush to sewer or waterways. Prevent release to the environment if possible.

SECTION 7. HANDLING AND STORAGE

Keep receptacles tightly sealed and store according to the instructions in the assay protocol.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Follow standard laboratory safety procedures, including wearing chemical safety goggles, face shield, gloves, NIOSH approved respiratory protection and protective clothing. Wash and dry hands.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Refer to Section 3. COMPOSITION/INFORMATION ON INGREDIENTS.

SECTION 10. STABILITY AND REACTIVITY

Thermal Decomposition: no decomposition if used according to specifications.

Dangerous Products of Decomposition: nitrogen and sulfur oxides.

Dangerous Reactions: none.

SECTION 11. TOXICOLOGICAL INFORMATION

The toxicological effects of this product have not been thoroughly studied. We recommend handling all chemicals with caution.

5,5'-Dithiobis(2-nitrobenzoic acid) - Toxicity Data: Oral LD50 (rat): NA.

SECTION 12. ECOLOGICAL INFORMATION

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

SECTION 13. DISPOSAL INFORMATION

Dispose in accordance with local, state or national regulations.

SECTION 14. TRANSPORT INFORMATION

DOT (US) - Not dangerous goods.

IMDG - Not dangerous goods.

IATA - Not dangerous goods.

Additional Transport Information: transport in accordance with local, state and national regulations.

SECTION 15. REGULATORY INFORMATION

OSHA Hazards: irritant

SARA 311/312 Hazards: acute health hazard, chronic health hazard

SECTION 16. OTHER INFORMATION

The above information is believed to be accurate, but does not purport to be all inclusive and shall be used only as a guide. BioAssay Systems makes no warranty, express or implied, and assumes no responsibility as to the accuracy or suitability of such information or application to the User's intended purpose or for consequences of its use. The Users should make independent decisions regarding the completeness of information based on all sources available.

