

SECTION 1 Identification of the substance/mixture and of the company

1.1 Product identifier

- Product Name(s): **Gladin Test Cocktail Solution**
- Product Part Number(s): **8483, 8483B, 8483S**

1.2 Relevant identified uses of the substance or mixture and uses advised against

- Use of the substance/preparation: Pre-extraction for heat processed samples.
- Use advised against: Do not use beyond the expiration date.

1.3 Details of the supplier of the safety data sheet

- Name of Manufacturer: Neogen Corporation
- Address of Manufacturer: 620 Leshar Place
Lansing, Michigan 48912
USA
- Telephone: 517/372-9200
- Email: foodsafety@neogen.com

1.4 Emergency telephone number

- Emergency Telephone: Chemtrec: 1 (800) 424-9300
Outside USA and Canada: +1 (703) 527-3887

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Classification (29 CFR 1910.1200)

- Skin irritation, Cat. 2, H315, Eye irritation, Cat. 2A, H319, Sensitization, skin, Cat. 1, H317, Specific target organ toxicity (repeated exposure), Cat. 2, H373, Hazardous to the aquatic environment, acute hazard, Cat. 2, H401, Hazardous to the aquatic environment, chronic hazard, Cat. 2, H411

Classification (REGULATION (EC) No 1272/2008) [CLP/GHS]

- Skin irrit 2, H315, Eye irrit 2, H319, Skin sens. 1, H317, STOT-RE 2, H373, Aquatic acute 2, H401, Aquatic chronic, H411

Classification (WHMIS 2015 HPR)

- Skin irritation, Cat. 2, H315, Eye irritation, Cat. 2A, H319, Sensitization, skin, Cat. 1A, H317, Specific target organ toxicity (repeated exposure), Cat. 2, H373, Hazardous to the aquatic environment, acute hazard, Cat. 2, H401, Hazardous to the aquatic environment, long-term hazard, Cat. 2, H411

Additional information: For full text of Hazard-statements see Section 16.

2.1 Label elements



GHS07



GHS08

- Signal Word: Warning
- Symbols: GHS07, GHS08
- Hazard phrases
 - Causes skin irritation.
 - Causes serious eye irritation.
 - May cause an allergic skin reaction.
 - Causes damage to organs through prolonged or repeated exposure.
 - Toxic to aquatic life.
 - Toxic to aquatic life with long-lasting effects.
- Precautionary Phrases
 - Wash hands thoroughly after handling.
 - Wear protective gloves/protective clothing/eye protection/face protection.
 - Avoid breathing mist/vapors/fumes/spray.
 - Contaminated work clothing must not be allowed out of the workplace.
 - IF ON SKIN: Wash with plenty of soap and water.
 - If skin irritation or rash occurs: Get medical advice/attention.

SECTION 2 Hazards identification (continued)

Take off contaminated clothing and wash it before reuse.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.2 Other hazards

- May cause nausea or other gastrointestinal symptoms if swallowed.

SECTION 3 Composition/information on ingredients

3.1 Substances

3.2 Mixtures

This product is a mixture of the substances listed below with the addition of non-hazardous materials

Chemical	Concentration	CAS No.	EC No.	H-Statements	Symbols
2-Mercaptoethanol	1.0-5.0%	60-24-2	200-464-6	H301, H310, H315, H317, H318, H331, H373, H400, H410	GHS05, GHS06, GHS08, GHS09
Guanidine hydrochloride	15.0-20.0%	50-01-1	200-002-3	H302, H315, H319	GHS07

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

- For full text of Hazard-statements see Section 16.

SECTION 4 First aid measures

4.1 Description of first aid measures

- General
 - In case of doubt, or when symptoms persist, seek medical attention.
 - If used as directed, this product is not hazardous to humans or animals, but like any other chemical, it should be treated with care, respect, and common sense.
- Contact with skin
 - Causes skin irritation.
 - Remove contaminated clothing.
 - Wash affected area with plenty of soap and water.
 - If skin irritation or rash occurs: Get medical advice/attention.
 - Contaminated clothing should be laundered before reuse.
- Contact with eyes
 - Causes serious eye irritation.
 - If substance has gotten into eyes, rinse with plenty of water for at least 15 minutes.
 - Irrigate eyes thoroughly while lifting eyelids.
 - Remove contact lenses, if present and easy to do. Continue rinsing.
 - If eye irritation persists: Get medical advice/attention.
- Ingestion
 - Rinse mouth with water (do not swallow).
 - Never make an unconscious person vomit or drink fluids.
 - If medical advice is needed, have product container or label at hand.
- Inhalation
 - If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 - Call a POISON CENTER or doctor/physician if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

- The most important known symptoms are described in the labeling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1 Extinguishing media

- In case of fire: use water spray, foam, carbon dioxide or dry agent for extinction.

5.2 Special hazards arising from the substance or mixture

- Smoke from fires is toxic. Take precautions to protect personnel from exposure.
- Prevent run-off from fire-fighting from entering public sewers or watercourses.
- See Section 10.

5.3 Advice for firefighters

- Keep container(s) exposed to fire cool, by spraying with water.
- Wear chemical protection suit and positive-pressure breathing apparatus, if necessary.
- Wear protective clothing as per Section 8.

5.4 Hazardous Combustion Products

- None known
-

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Spills should be cleaned up immediately to avoid slip and fall accidents and injuries.
- Wear protective clothing as per Section 8.
- Evacuate personnel not directly involved in spill clean-up.
- Shut off source of leak/release, if safe to do so.
- Shut down and/or remove equipment in spill area, if safe to do so.
- Wash thoroughly after dealing with spillage.

6.2 Environmental Precautions

- Do not allow to enter public sewers and watercourses.
- Avoid releasing to the environment.

6.3 Methods and material for containment and cleaning up

- Absorb spillage in inert material and shovel up.
- Dike large spills as necessary.
- Place in sealable containers and label them.
- Ventilate the area and wash spill site after material pick-up is complete.
- Dispose of contaminated materials and wastes in accordance with local/national/international regulations.

6.4 Reference to other sections

- See Section 7 for storage. For disposal, see Section 13.
-

SECTION 7 Handling and storage

7.1 Precautions for safe handling

- Do not breathe mist/vapors/fumes/spray.
- Avoid contact with skin and eyes.
- Do not eat, drink, smoke, or apply cosmetics when using this product.
- Ensure adequate ventilation.
- Eyewash bottles should be available.
- Wash hands thoroughly after using this substance.

7.2 Conditions for safe storage, including any incompatibilities

- Store at ambient temperatures.
- Keep container tightly closed in a well-ventilated place.

7.3 Specific end use(s)

- Pre-extraction for heat-processed samples.
-

SECTION 8 Exposure controls/personal protection

8.1 Control parameters

This product contains no substances >1% with occupational exposure limit values.

SECTION 8 Exposure controls/personal protection (continued)

8.2 Exposure controls

- Eyewash bottles should be available.
- No respiratory protection is needed if ventilation/extraction is adequate, otherwise wear approved respiratory protection with an organic vapor cartridge.
- Wear protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and standard EN 374.
- Wear safety glasses approved to standard for ANSI Z87 or EN 166 or chemical splash goggles.
- Wear suitable protective clothing in accordance with good chemical hygiene practices.



Gloves



Safety
Glasses



Lab Coat

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance: Clear liquid
- Odor: No information available
- pH: No information available
- Melting Point/Range: Not applicable
- Boiling Point/Range: No information available
- Flashpoint: No information available
- Evaporation Rate: No information available
- Flammability: No information available
- Vapor Pressure: No information available
- Vapor Density: No information available
- Specific Gravity: No information available
- Solubility in water: No information available
- Partition Coefficient (n-Octanol/Water): No information available
- Autoignition Temperature: Product is not self-igniting
- Viscosity: No information available
- Explosive Properties: Product does not present an explosion hazard
- Oxidizing Properties: Product is not classified as an oxidizer

9.2 Other information

- No information available

SECTION 10 Stability and reactivity

10.1 Reactivity

- No information available

10.2 Chemical stability

- Considered stable under normal conditions.

10.3 Possibility of hazardous reactions

- No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

- None known

10.5 Incompatible materials

- Soft metals, strong oxidizing agents.

10.6 Hazardous Decomposition Products

- None known

SECTION 11 Toxicological information

11.1 Information on toxicological effects

- No experimental test data available for the mixture
- ATEmix = 1,724 mg/kg (oral)
- Contact with skin
Causes skin irritation.
- Contact with eyes
Causes serious eye irritation.
- Ingestion
Product is not toxic, but may cause nausea or other gastrointestinal symptoms if swallowed.
Based on available data, the classification criteria are not met, however get medical advice/attention if you feel unwell.
- Inhalation
Causes damage to organs through prolonged or repeated exposure.
- Carcinogenicity
Not listed in the National Toxicology Program (NTP) 13th Report on Carcinogens.
Not found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, Volumes 1-112.
Not listed in OSHA standard 1910.1003 Carcinogens.
- Mutagenicity
No evidence of mutagenic effects.
- Teratogenicity
No evidence of teratogenic effects.

SECTION 12 Ecological information

12.1 Toxicity

2-Mercaptoethanol

Toxicity to fish

LC₅₀ – *Leuciscus idus* (Golden orfe) = 46-100 mg/L-96h

Toxicity to daphnia and other aquatic invertebrates

EC₅₀ – *Daphnia magna* (Water flea) = 0.89 mg/L-48h
(OECD Test Guideline 202)

Toxicity to algae

EC₅₀ – *Desmodesmus subspicatus* (Green algae) = 12 mg/L-72h

Toxicity to bacteria

LC₅₀ – Bacteria = 125 mg/L-17h

12.1 Persistence and degradability

- Biodegradability <30.0% - Not readily biodegradable
Aerobic exposure time 28d
Biochemical Oxygen Demand (BOD) – 105 mg/g
Chemical Oxygen Demand (COD) – 1.894 mg/g

12.2 Bioaccumulation Potential

- No information available

12.3 Mobility in soil

- No information available

12.4 Results of PBT and vPvB assessment

- Not a PBT according to REACH Annex XIII
- PBT/vPvB assessment not available

12.5 Other Adverse Effects

- To the best of our knowledge, the properties of this product have not been fully evaluated.

SECTION 13 Disposal considerations

13.1 Waste treatment methods

- Disposal should be in accordance with local, regional, national, and/or international regulations.
- Do not discharge into drains or the environment, dispose to an authorized waste collection point.
- Do not reuse empty containers.

SECTION 13 Disposal considerations (continued)

13.2 Classification (REACH)

- Waste Codes in accordance with the European Waste catalogue (EWC) are origin-defined. Since this product is used in several industries, no Waste Code can be provided by the supplier. The Waste Code should be determined in arrangement with your waste disposal partner or the responsible authority.

SECTION 14 Transport information

14.1 UN Number

UN2966

14.2 UN Proper Shipping Name

- Thioglycol

14.3 Transport hazard class(es)

- 6.1

14.4 Packing group

- II

14.5 Environmental hazards

- Marine pollutant

14.6 Special precautions for user

- Not classified

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

- Not classified

14.8 Domestic Surface Transport (US DOT)

- Proper Shipping Name: Thioglycol
- DOT UN No.: 2966
- DOT Hazard Class: 6.1
- DOT Packing Group: II

14.9 International Road/Rail (ADR/RID)

- Proper Shipping Name: Thioglycol
- ADR UN No.: 2966
- ADR Hazard Class: 6.1
- ADR Packing Group: II
- Tunnel Code: 2 (D/E)

14.10 Ocean/Sea (IMO/IMDG)

- Proper Shipping Name: Thioglycol
- IMDG UN No.: 2966
- IMDG Hazard Class: 6.1
- IMDG Packing Group: II

14.11 Air (ICAO/IATA)

- Proper Shipping Name: Thioglycol
- ICAO UN No.: 2966
- ICAO Hazard Class: 6.1
- ICAO Packing Group: II

SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- This Safety Data Sheet is provided in compliance with the EC Directive 1907/2006- 453/2010, WHMIS 2015 requirements as specified in the Hazardous Products Act (HPA) and the Hazardous Products Regulations (HPR), and with the OSHA Hazard Communication Standard 29 CFR 1910.1200.
- Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) applies in Europe.

SECTION 15 Regulatory information

15.2 Chemical Safety Assessment

- No information available

15.3 United States Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Toxic Substance Control Act (TSCA)

All components of this material are either listed or exempt from listing on the TSCA Inventory.

State Right-to-Know

Massachusetts

2-Mercaptoethanol, CAS No. 60-24-2

New Jersey

Thioglycol, CAS No. 60-24-2

Pennsylvania

2-Mercaptoethanol, CAS No. 60-24-2

15.4 Canadian Regulatory Information

- Inventory Status

Domestic Substances List (DSL)	Listed
Non-Domestic Substances List (NDSL)	Not listed

SECTION 16 Other information

Date of Preparation: July 2016

Revision: Rev. 0

Replaces: New issue

Text not given with phrase codes where they are used elsewhere in this safety data sheet: H301: Toxic if swallowed. H302: Harmful if swallowed. H310: Fatal in contact with skin. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H319: Causes serious eye irritation. H331: Toxic if inhaled. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335: May cause respiratory irritation. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long-lasting effects.

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.