

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Reagent D

**Synonyms:** Reagent D for Kits 9000-1, 9222-1, 9333-1, 9444-1, 9547-1, 9777-1, 9888-1

### 1.2. Intended Use of the Product

**Use of the Substance/Mixture:** Component of ELISA kit used for the detection of specific standards referenced on each kit label.  
 For R&D use only.

### 1.3. Name, Address, and Telephone of the Responsible Party

#### Company

Repligen Corporation  
 41 Seyon Street, Building 1, Suite 100  
 Waltham, MA 02453  
 USA  
 +1 781-250-0111

[customerserviceUS@repligen.com](mailto:customerserviceUS@repligen.com)

### 1.4. Emergency Telephone Number

**Emergency Number** : ChemTel LLC  
 (800)255-3924 (North America)  
 +1 (813)248-0585 (International)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

#### GHS-US Classification

Skin sensitization, Category 1A	H317
Hazardous to the aquatic environment - Acute Hazard Category 3	H402
Hazardous to the aquatic environment - Chronic Hazard Category 3	H412

### 2.2. Label Elements

#### GHS-US Labeling

**Hazard Pictograms (GHS-US)** :



GHS07

**Signal Word (GHS-US)** :

Warning

**Hazard Statements (GHS-US)** :

H317 - May cause an allergic skin reaction.  
 H402 - Harmful to aquatic life.  
 H412 - Harmful to aquatic life with long lasting effects.

**Precautionary Statements (GHS-US)** :

P261 - Avoid breathing mist, spray, vapors.  
 P272 - Contaminated work clothing must not be allowed out of the workplace.  
 P273 - Avoid release to the environment.  
 P280 - Wear eye protection, protective gloves, protective clothing.  
 P302+P352 - If on skin: Wash with plenty of soap and water.  
 P321 - Specific treatment (see Section 4 on this SDS).  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
 P363 - Wash contaminated clothing before reuse.  
 P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

### 2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Not applicable

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### 3.2. Mixture

Name	Synonyms	Product Identifier	%	GHS US classification
1,2,3-Propanetriol	Glycerin / Glycerine / Glycerol / 1,2,3-Trihydroxypropane / GLYCERIN / Propane-1,2,3-triol	(CAS-No.) 56-81-5	25 – 30	Not classified
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone	CMI + MIT in mixture 3:1 / Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one / Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) / Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) / 5-Chloro-2-methyl-3(2H)-isothiazolone with 2-methyl-3(2H)-isothiazolone / 3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixture with 2-methyl-3(2H)-isothiazolone (3:1) / Methylisothiazolinone and methylchloroisothiazolinone, in combination / Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) / Kathon CG 5243 and Kathon CG 243 / Mixture of 5-chloro-2-methylisothiazol-3(2H)-one and 2-methylisothiazol-3(2H)-one / Kathon 886 / Reaction mass 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) / Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one / 2-Methyl-5-chloro-(2H)-isothiazol-3-one with 2-methyl-(2H)-isothiazol-3-one / Mixture of 2-methyl-1,2-thiazol-3(2H)-one and 5-chloro-2-methyl-1,2-thiazol-3(2H)-one / 2-Methyl-1,2-thiazol-3(2H)-one - 5-chloro-2-methyl-1,2-thiazol-3(2H)-one / 3(2H)-Isothiazolone, 5-chloro-2-methyl-, mixture with 2-methyl-3(2H)-isothiazolone / Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1); reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1) / Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) / Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-2H-isothiazol-3-one (3:1) / Methylchloroisothiazolinone/methylisothiazolinone mixture / Methylisothiazolinone and methylchloroisothiazolinone / MIXTURE OF METHYLCHLOROISOTHIAZOLINONE AND METHYLISOTHIAZOLINONE (3:1) WITH MAGNESIUM CHLORIDE AND MAGNESIUM NITRATE	(CAS-No.) 55965-84-9	0.002 – < 0.06	Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Dermal), H310 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

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**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Wash affected area with soap and water for at least 15 minutes. Obtain medical attention if irritation/rash develops or persists.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**Symptoms/Injuries:** Skin sensitization.

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** Exposure may produce an allergic reaction.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Water spray, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, or dry chemical. Alcohol resistant foams are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. Do not breathe fumes from fires or vapours from decomposition.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides. Hydrogen chloride. Sulfur oxides. Irritating fumes.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Avoid breathing (vapor, mist, spray). Do not get in eyes, on skin, or on clothing.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 7 for handling and storage, Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

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## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Additional Hazards When Processed:** None reasonably foreseeable.

**Precautions for Safe Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing vapors, mist, spray. Avoid prolonged contact with eyes, skin and clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Use appropriate personal protective equipment (PPE).

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Store in a dry, cool place. Keep container closed when not in use. Containers which are opened should be properly resealed and kept upright to prevent leakage. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers. Reducing agents. Amines. Mercaptans. Nucleophils.

**Storage Temperature:** 2 – 8 °C (35.6 - 46.4 °F)

**Special Rules on Packaging:** Keep only in original container.

### 7.3. Specific End Use(s)

Component of ELISA kit used for the detection of specific standards referenced on each kit label. For R&D use only.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

1,2,3-Propanetriol (56-81-5)		
USA OSHA	OSHA PEL (TWA) [1]	15 mg/m <sup>3</sup> (mist, total particulate) 5 mg/m <sup>3</sup> (mist, respirable fraction)

### 8.2. Exposure Controls

#### Appropriate Engineering Controls

: Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Suitable eye/body wash equipment should be available in the vicinity of any potential exposure.

#### Personal Protective Equipment

: Gloves. Protective clothing. Protective goggles.



#### Materials for Protective Clothing

: Chemically resistant materials and fabrics.

#### Hand Protection

: Wear protective gloves.

#### Eye and Face Protection

: Chemical safety goggles.

#### Skin and Body Protection

: Wear suitable protective clothing.

#### Respiratory Protection

: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

#### Environmental Exposure Controls

: Do not allow to enter drains or water courses.

#### Other Information

: When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear to Pink
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available

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Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: No data available
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

### 9.2. Other Information

No additional information available

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

### 10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

### 10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers. Reducing agents. Amines. Mercaptans. Nucleophils.

### 10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Acrolein. Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides. Hydrogen chloride. Sulfur oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects

**Acute Toxicity (Oral):** Not classified (Based on available data, the classification criteria are not met)

**Acute Toxicity (Dermal):** Not classified (Based on available data, the classification criteria are not met)

**Acute Toxicity (Inhalation):** Not classified (Based on available data, the classification criteria are not met)

5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone (55965-84-9)	
LD50 Oral Rat	53 mg/kg
LD50 Dermal Rabbit	87.12 mg/kg
LC50 Inhalation Rat	1.23 mg/l/4h
ATE (Dermal)	87.12 mg/kg body weight
ATE (Vapors)	1.23 mg/l/4h
ATE (Dust/Mist)	1.23 mg/l/4h

1,2,3-Propanetriol (56-81-5)	
LD50 Oral Rat	12600 mg/kg
LD50 Dermal Rabbit	> 10 g/kg

**Skin Corrosion/Irritation:** Not classified (Based on available data, the classification criteria are not met)

**Serious Eye Damage/Irritation:** Not classified (Based on available data, the classification criteria are not met)

**Respiratory or Skin Sensitization:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Not classified (Based on available data, the classification criteria are not met)

**Carcinogenicity:** Not classified (Based on available data, the classification criteria are not met)

**Reproductive Toxicity:** Not classified (Based on available data, the classification criteria are not met)

**Specific Target Organ Toxicity (Single Exposure):** Not classified (Based on available data, the classification criteria are not met)

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified (Based on available data, the classification criteria are not met)

**Aspiration Hazard:** Not classified (Based on available data, the classification criteria are not met)

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

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**Chronic Symptoms:** Exposure may produce an allergic reaction.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General** : Harmful to aquatic life with long lasting effects.

5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone (55965-84-9)	
LC50 Fish 1	0.09 mg/l
EC50 - Crustacea [1]	0.007 mg/l
ErC50 (Algae)	0.0107 (0.0107 – 0.0535) mg/l
NOEC Chronic Fish	0.02 mg/l
NOEC Chronic Crustacea	0.1 mg/l
NOEC Chronic Algae	0.00049 mg/l
1,2,3-Propanetriol (56-81-5)	
LC50 Fish 1	54000 (51000 – 57000) mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

### 12.2. Persistence and Degradability

Reagent D	
Persistence and Degradability	May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative Potential

Reagent D	
Bioaccumulative Potential	Not established.
1,2,3-Propanetriol (56-81-5)	
BCF Fish 1	(no bioaccumulation)
Partition coefficient n-octanol/water (Log Pow)	-1.76

### 12.4. Mobility in Soil

Reagent D	
Ecology - Soil	Not established.

### 12.5. Other Adverse Effects

**Other Information** : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste Treatment Methods

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, and international regulations.

**Additional Information:** Container may remain hazardous when empty. Continue to observe all precautions.

**Ecology - Waste Materials:** Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

**14.1. In Accordance with DOT** Not regulated for transport

**14.2. In Accordance with IMDG** Not regulated for transport

**14.3. In Accordance with IATA** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

Reagent D	
SARA Section 311/312 Hazard Classes	Health hazard - Respiratory or skin sensitization
1,2,3-Propanetriol (56-81-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	

### 15.2. US State Regulations

1,2,3-Propanetriol (56-81-5)	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	
U.S. - Massachusetts - Right To Know List	

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## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest Revision** : 11/15/2021

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

SDS US (GHS HazCom)