Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) as amended
SDS ID: REP-002.1

Section 1 – Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Material Name: Reagent D - component of Protein A ELISA kit (9000-1)
Product Description: Kit Component
Chemical Family: Isothiazolinones
Substance Registration Number(s): This material is imported in amounts <1 ton/year. This product and the other components are not subject to REACH legislation. All other parts of the kit are non-hazardous and they don't require a Safety Data Sheet

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

Identified uses: Detection and quantification of Protein A
Uses advised against: Analytical use only

1.3 Details of the supplier of the safety data sheet

Repligen Sweden AB
P.O. Box 965
SE-220 09 Lund
Sweden
Phone: +46(0) 46 280 17 00
E-mail: sales@repligen.com
Fax: +46(0) 46 280 17 01

1.4 Emergency telephone number: +46 (0)707 54 98 23

Section 2 – Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]
Skin Corrosion/Irritation - Category 1B
Serious Eye Damage/Eye Irritation - Category 1
Skin Sensitization - Category 1A
Hazardous to the Aquatic Environment - Chronic - Category 3

2.2 Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard Symbols:

Signal word: Danger
Reagent D – component of Protein A ELISA kit (9000-1)
Material Safety Data Sheet

Hazard statements:
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H317 May cause allergic skin reaction.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
Prevention:
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.

Response:
- P304+P340 IF INHALED: Remove person to fresh air and keep 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.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P362+P364 Take off contaminated clothing and wash before reuse.
- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P310 Immediately call a POISON CENTER or doctor.
- P321 Specific treatment (see label).

Storage:
- P405 Store locked up.

Disposal:
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Statement(s) of Unknown Aquatic Toxicity:
- 99.1% of the mixture consists of ingredient(s) of unknown chronic aquatic toxicity.

2.3 Other hazards
The following effects are based on individual components of the kit.

Section 3 – Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>CAS EC No Registration No</th>
<th>Component Name Synonyms</th>
<th>1272/2008 (CLP)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td></td>
<td>99.1</td>
</tr>
</tbody>
</table>

41 Seyon Street, Bldg 1, Suite 100, Waltham, MA 02453
### Component Related Regulatory Information

The kit as a whole is not a hazardous substance or mixture. The information is provided for the hazardous component Reagent D.

### Section 4 – First Aid Measures

#### 4.1 Description of first aid measures

**Inhalation:** If adverse effects occur, remove to uncontaminated area. Get immediate medical attention.

**Skin:**

If ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor.

**Eyes:**

If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

**Ingestion:**

If SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

#### 4.2 Most Important Symptoms/Effects

**Acute:** Severe skin burns, serious eye damage, allergic skin reaction

**Delayed:** No information on significant adverse effects.

#### 4.3 Indication of Immediate Medical Attention and Special Treatment

Treat symptomatically and supportively.

### Section 5 – Firefighting Measures

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Use foam, dry chemical, CO2, or water spray.

**Unsuitable Extinguishing Media:** None known.

#### 5.2 Special hazards arising from the substance or mixture

May explode if heated in closed container.

**Combustion:** Decomposition products include oxides of carbon and low molecular weight hydrocarbons.

#### 5.3 Advice for firefighters

Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products.
Fire Fighting Measures: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

Section 6 – Accidental Release Measures
6.1 Personal precautions, protective equipment and emergency procedures:
Wear personal protective clothing and equipment, see Section 8.

6.2 Environmental precautions:
Avoid release to the environment. Do not allow to enter into ground-water, surface water or drains.

6.3 Methods and Materials for Containment and Cleaning Up:
Contain the discharged material with an inert absorbent material. Isolate hazard area. Keep unnecessary personnel away.

6.4 Reference to other sections:

Section 7 – Handling and Storage
7.1 Precautions for safe handling:
Use only outdoors or in a well-ventilated area. Do not eat, drink or smoke when using this product. Wear eye/face protection. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities:
Store locked up.
Keep container tightly closed. Keep away from heat/sparks/open flame/hot surfaces - No smoking. Store at 2-8 °C. Store Reagent B at -20°C.

Incompatible Materials:
Strong oxidizing agents, peroxides, acid, alkali

7.3 Specific end use(s):
R&D Use Only.

Section 8 – Exposure Controls/Personal Protection
8.1 Control parameters

Component Exposure Limits

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone</td>
<td>55965-84-9</td>
</tr>
<tr>
<td>Austria:</td>
<td>0.05 mg/m3 TWA [TMW ]</td>
</tr>
<tr>
<td></td>
<td>skin notation</td>
</tr>
<tr>
<td></td>
<td>Skin sensitizer</td>
</tr>
</tbody>
</table>
Component Biological
Exposure Limits: None of this product's components are on the list.
Derived No Effect Levels (DNELs): No DNELs available.
Predicted No Effect Concentrations (PNECs): No PNECs available.

8.2 Exposure Controls
Engineering controls: Provide adequate ventilation. Ensure compliance with
applicable exposure limits.
Eye/face protection: Wear safety googles with a faceshield (EN 166).
Skin Protection: Wear suitable protective clothing. Wash contaminated clothing
before reuse (EN ISO 6529).
Respiratory Protection: If engineering controls do not maintain airborne concentrations
to a negligible level, an approved respirator must be worn (EN 137).
Glove Recommendations: Wear suitable gloves (EN 374).

Section 9 – Physical and Chemical Properties
9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Odor</th>
<th>Odor Threshold</th>
<th>Melting Point</th>
<th>Boiling Point Range</th>
<th>Evaporation Rate</th>
<th>Autoignition Temperature</th>
<th>Lower Explosive Limit</th>
<th>Upper Explosive Limit</th>
<th>Vapor Density (air=1)</th>
<th>Water Solubility</th>
<th>Viscosity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorless liquid</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>(soluble)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Not applicable</th>
<th>pH</th>
<th>Boiling Point</th>
<th>Freezing point</th>
<th>Flammability (solid, gas)</th>
<th>Flash Point</th>
<th>Decomposition temperature</th>
<th>Vapor Pressure</th>
<th>Specific Gravity (water=1)</th>
<th>Partition coefficient: n-octanol/water</th>
<th>Solubility (Other)</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Colorless, clear to light yellow</td>
<td>7</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Section 10 – Stability and Reactivity

10.1 Reactivity: No reactivity hazard is expected.
10.2 Chemical stability: Stable at normal temperatures and pressure.
10.3 Possibility of hazardous reactions: Will not polymerize.
10.4 Conditions to avoid: Avoid contact with incompatible materials.
10.5 Incompatible materials: Strong oxidizing agents, peroxides, acids, alkanes.
10.6 Hazardous decomposition Products: Decomposition products include oxides of carbon and low molecular weight hydrocarbons.

Section 11 – Toxicological Information

11.1 Information on toxicological effects

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone (55965-84-9)

Oral LD50 Rat 53 mg/kg

Product Toxicity Data

Acute Toxicity Estimate

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

Irritation/Corrosivity Data: Severe skin burns, serious eye damage
Respiratory Sensitization: No data available.
Dermal Sensitization: May cause an allergic skin reaction.
Germ Cell Mutagenicity: No data available.
Component Carcinogenicity: None of this product's components are listed by IARC or DFG.
Reproductive toxicity: No data available.
Specific Target Organ Toxicity – Single Exposure: No target organs identified.
Specific Target Organ Toxicity – Repeated Exposure: No target organs identified.
Aspiration hazard: No data available.

Section 12 – Ecological Information

12.1 Toxicity: Harmful to aquatic life with long lasting effects.

Component Analysis – Aquatic Toxicity: No LOLI ecotoxicity data are available for this product's components.
12.2 Persistence and degradability: No information available for the product.
12.3 Bioaccumulative potential: No information available for the product.
12.4 Mobility in soil: No information available for the product.
12.5 Results of PBT and vPvB assessment: No information available for the product.

Section 13 – Disposal Considerations
13.1 Waste treatment methods: Dispose of contents/container in accordance with local/regional/national/international regulations.
Recycle if possible. EWC-code: 18 02 05*.
No data specific data available.
Release to the environment or sewage system is prohibited.
Dispose in accordance with all applicable regulations.

Section 14 – Transport Information

<table>
<thead>
<tr>
<th></th>
<th>ADR</th>
<th>RID</th>
<th>ICAO</th>
<th>IATA</th>
<th>ADN</th>
<th>IMDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN Number</td>
<td>--</td>
<td>--</td>
<td>UN1760</td>
<td>UN1760</td>
<td>--</td>
</tr>
<tr>
<td>14.2</td>
<td>UN Proper Shipping Name</td>
<td>--</td>
<td>--</td>
<td>CORROSIVE LIQUID, N.O.S.</td>
<td>CORROSIVE LIQUID, N.O.S.</td>
<td>--</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport Hazard Class(es)</td>
<td>--</td>
<td>--</td>
<td>8</td>
<td>8</td>
<td>--</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing Group</td>
<td>--</td>
<td>--</td>
<td>I</td>
<td>II</td>
<td>--</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental Hazards</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>14.6</td>
<td>Special Precautions For User</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in Bulk According to Annex II of MARPOL and the IBC Code</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>14.8</td>
<td>Additional information</td>
<td>--</td>
<td>--</td>
<td>Contains: 5-Chloro-2-methyl-4-isothiazolin-3-one</td>
<td>5-Chloro-2-methyl-4-isothiazolin-3-one</td>
<td>--</td>
</tr>
</tbody>
</table>

Component Marine Pollutants (IMDG): Not regulated as dangerous goods.
International Bulk Chemical Code: This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.
Section 15 – Regulatory Information

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

EU - REACH (1907/2006) - Annex XIV List of Substances Subject to Authorization
No components of this material are listed.

EU - REACH (1907/2006) - Article 59(1) Candidate List of Substances Subject to Authorization
No components of this material are listed.

EU - REACH (1907/2006) - Annex XVII Restrictions of Certain Dangerous Substances, Mixtures and Articles
No components of this material are listed.

EU - Substances Depleting the Ozone layer (1005/2009)
No components of this material are listed

EU - Persistent Organic Pollutants (850/2004)
No components of this material are listed

EU - Export and Import Restrictions (689/2008) - Chemicals and Articles Subject to Export Ban
No components of this material are listed

EU - Seveso III Directive (2012/18/EU) - Qualifying Quantities of Dangerous Substances
No components of this material are listed

EU - Plant Protection Products (1107/2009/EC)
No components of this material are listed

EU - Biocides (528/2012/EU)
No components of this material are listed

No components of this material are listed

EU - Limitation of Emissions of Volatile Organic Compounds Due to the Use of Organic Solvents in Certain Activities and Installations (1999/13/EC)
No components of this material are listed

EU Detergent Regulation 648/2004/EC
No components of this material are listed

Germany Regulations

Germany Water Classification - Product
Hazard class 2 - hazard to waters

Germany Water Classification - Component
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone (55965-84-9)
ID Number 2959, hazard class 3 - severe hazard to waters

Denmark Regulations
No components of this material are listed.

Component Analysis - Inventory
5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone (55965-84-9)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
15.2 Chemical Safety Assessment
No chemical safety assessment has been carried out for the substance/mixture.

Section 16 – Other Information
16.1 Indication of changes
New SDS: 10/05/2016

16.2 Key / Legend:
ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KECI - Korea Existing Chemicals Inventory; KECL – Korea Existing Chemicals List; KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR’s Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX – Mexico; NDSL – Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH - Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit
16.3 Key literature references and sources for data: Available upon request.


16.5 Relevant H- and EUH-phrases (Number and full text) and Notes: H301 Toxic if swallowed
H311 Toxic in contact with skin
H314 Causes severe skin burns and eye damage
H317 May cause allergic skin reaction
H331 Toxic if inhaled
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

16.6 Training advice: Read the Safety Data Sheet before handling product.

16.7 Further Information

Disclaimer: Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.