SAFETY DATA SHEET (SDS)
according to Regulation (EC) No. 830/2015 amending 1907/2006

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

1.1 Product identifier: General Assay Diluent
1.1a Other means of identification: .
1.1b Alternative product name(s)/ synonyms: AD1
1.1c Product number/Catalog # (s): 518, 620, 621, 622, 671
1.1d Internal identification: AD1

1.2 Relevant identified uses of the substance or mixture and uses advised against:
For research use only. Not for use in diagnostic procedures.
1.2a Brief description of what the substance or mixture is intended to do: A buffered solution designed to equalize matrix differences in ELISAs.

1.3 Details of the supplier of the SDS:
1.3a Name: ImmunoChemistry Technologies, LLC (ICT)
1.3b Address: 9401 James Avenue South, Suite 155
1.3c City, State, Zip, Country: Bloomington, MN 55431-2500 USA
1.3d Phone number: 1-800-829-3194 and 952-888-8788
1.3e Fax number: 952-888-8988
1.3f Website: www.immunochemistry.com
1.3g Email: help@immunochemistry.com
1.3h Contact person at ICT: Quality Documentation Department

1.4 Emergency telephone number: ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.

Section 2: Hazards identification

2.1 Classification of the substance or mixture:
2.1a Product is a: Mixture.
2.1b Classification according to (EC) No. 1272/2008 (CLP): Skin Sens. 1, H317 May cause an allergic skin reaction.
2.1c The most important adverse physiochemical, human health, and environmental effects: Refer to Sections 9-12.

2.2 Label elements:
2.2a GHS label elements, including precautionary statements: .

2.2b Contains: ≤0.0085% of 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).

2.2c Labeling in accordance with (EC) No. 1272/2008: .

2.2d Hazard Pictograms (Hazard Symbols):

GHS07 Exclamation.

2.2e Signal word: Warning.
2.2f Hazard statements: H317 May cause an allergic skin reaction.

2.2g Precautionary statements: P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+352 IF ON SKIN: Wash with plenty of soap and water. P333+313 If skin irritation or rash occurs: Get medical advice/attention. P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.2h Supplementary precaution statements: P272 Contaminated work clothing should not be allowed out of the workplace. P363 Wash contaminated clothing before reuse.

2.3 Other hazards: No additional information available.
2.3a Does the chemical meet the criteria for PBT or vPvB? Not applicable.
2.3b Other hazards which do not result in classification: Contains salts and phosphates which are below the threshold for hazard classification, but may cause redness and irritation after prolonged exposure.

Section 3: Composition/information on ingredients

3.1 Substance: Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.

3.2 Mixture: The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:

3.2a Chemical identity: 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).

3.2b Common name, synonyms, etc.: ProClin300 (ProClin® is a registered trademark of Dow Chemical Company)

3.2c CAS number and other unique identifiers: CAS: 55965-84-9; Annex VI Index: 613-167-00-5

3.2d EC number: 220-239-6

3.2e Concentration: ≤0.0085%

3.2f Classification according to (EC) No. 1272/2008 {CLP}: Acute Tox. 3 H301, H311, H331; Skin Corr. 1B H314; Skin Sens. 1 H317; Aquatic Acute 1 H400; Aquatic Chronic 1 H410.

3.2u Other information on the mixture: None.

Section 4: First aid measures

4.1 Description of first aid measures: If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

4.1a Inhalation: Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

4.1b Skin contact: Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.

4.1c Eye contact: Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.1d Ingestion: NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed: Refer to Sections 2 and 11 for most important known symptoms and effects.

4.2a Inhalation: May cause coughing or mild irritation.

4.2b Skin contact: Prolonged skin contact may cause mild irritation.

4.2c Eye contact: May cause temporary eye irritation.

4.2d Ingestion: May cause discomfort if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed: No specific first aid measures noted, but first aid may still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly!

4.3a Notes to physician/first responder: Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.

Section 5: Firefighting measures

5.1 Extinguishing media: This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials.

5.1a Suitable extinguishing media: Water spray, foam, dry powder, or carbon dioxide.

5.1b Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture: This product is a liquid and is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.

5.2a Hazardous combustion products: In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO2; COx), and nitrous gases (NOx). None under normal conditions.

5.2b Unusual fire & explosion hazards: No unusual fire or explosion hazards noted.

5.2c Protective measures in fire: Use protective equipment appropriate for surrounding materials.

5.3 Advice for firefighters: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

5.3a Special firefighting procedures: No specific firefighting procedure given.
### General Assay Diluent SDS; Doc# F17-518-2-C; Effective: 2017-04-28; Supersedes: F17-518-2-B; Page 3 of 7

**Section 6: Accidental release measures**

**6.1 Personal precautions, protective equipment, and emergency procedures:**

Use protective equipment appropriate for surrounding materials.

**6.1a General release measures:**

No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).

**6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:**

No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.

**6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures:**

Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).

**6.2 Environmental precautions:**

Do not allow to enter drains, sewers, or watercourses.

**6.3 Methods and materials for containment and clean up:**

Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable container for disposal in accordance with local waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapour.

**6.4 Reference to other sections:**

Refer to Sections 8 and 13 for additional information.

### Section 7: Handling and storage

**7.1 Precautions for safe handling:**

Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.

**7.1a Prevent handling of incompatible substances or mixtures:**

Avoid contact with strong acids and strong oxidizers.

**7.1b Advice on general occupational hygiene:**

Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.

**7.2 Conditions for safe storage, including any incompatibilities:**

Refer to product label. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.

**7.3 Specific end use(s):**

For research use only. Not for use in diagnostic procedures.

### Section 8: Exposure controls/personal protection

**8.1 Control parameters:**

**8.1a Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.:**

WEL = Workplace Exposure Limit. Sk = can be absorbed through skin. Not applicable.

**8.1b Appropriate engineering controls:**

Provide eyewash station.

**8.1c Individual protection measures, such as personal protective equipment:**

Wear gloves, protective goggles, and lab coat.

**8.1d Safety symbols:**

- [Image]

**8.2 Exposure controls:**

- [Image]

**8.2a Process conditions:**

Provide eyewash station.
8.2b Engineering controls: Ensure that eyewash stations and safety showers are proximal to the workstation location.

8.2c Ventilation controls: Provide adequate ventilation.

8.2d Reference to other sections: Refer to Section 5 for additional information.

8.2e Eye/face protection: Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.

8.2f Skin protection: Wear apron or protective clothing in case of contact.

8.2g Hand protection: Use suitable protective gloves if risk of skin contact.

8.2h Respiratory equipment: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2i Other protection: Wear appropriate clothing to avoid skin contact.

8.2j Hygiene measures: DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated.

8.2k Thermal hazards: None known under normal conditions of use.

8.2l Environmental exposure controls: Not determined.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

9.1a Appearance (physical state, color, etc.): Liquid; light (or pale) yellow.

9.1b Odor: Characteristic.

9.1c Odor threshold: Not determined.

9.1d pH: 7.2-7.6

9.1e Melting point/freezing point (°C): Not determined.

9.1f Initial boiling point and boiling range: <100°C @ 760 mm Hg.

9.1g Flash point (°C): Not applicable.

9.1h Evaporation rate: Not determined.

9.1i Flammability (solid, gas): Not applicable.

9.1j Upper/lower flammability or explosive limits: Not applicable.

9.1k Vapor pressure: Not determined.

9.1l Vapor density (Air =1): Not determined.

9.1m Relative density: Not determined.

9.1n Solubility(ies): Soluble in water.

9.1o Partition coefficient (N-octanol/water): Not determined.

9.1p Auto-ignition temperature (°C): Not determined.

9.1q Decomposition temperature (°C): Not determined.

9.1r Viscosity: Not determined.

9.1s Explosive properties: Not determined.

9.1t Oxidizing properties: Not determined.

9.2 Other information: None.

9.2a Other physical or chemical parameters: None.

Section 10: Stability and reactivity

10.1 Reactivity: No data available.

10.2 Chemical stability: Stable under normal temperature conditions.

10.3 Possibility of hazardous reactions: Hazardous polymerization: will not polymerize.

10.4 Conditions to avoid: To avoid product degradation, avoid exposure to high temperatures or direct sunlight or light.


10.6 Hazardous decomposition products: None under normal conditions.

Section 11: Toxicological information

11.1 Information on toxicological effects:

11.1a Name: 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).

11.1b Acute toxicity: Oral LD50 53 mg/kg rat. Dermal LD50: 2800 mg/kg rabbit.

11.1c Skin corrosion/irritation: Not determined.

11.1d Serious eye damage/irritation: Not determined.

11.1e Respiratory or skin sensitization: Not determined.
11.1f Germ cell mutagenicity: Not determined.

11.1g Carcinogenicity: Not determined.

11.1h Reproductive toxicity: Not determined.

11.1i STOT-single exposure: Not determined.

11.1j STOT-repeated exposure: Not determined.

11.1k Aspiration hazard: Not determined.

11.1l Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact): May enter by ingestion; skin and/or eye contact; inhalation of vapors/mist/dust.

11.1m Ingestion: May cause discomfort if swallowed.

11.1n Inhalation: In high concentrations, vapors may irritate throat and respiratory system and cause coughing.

11.1o Skin contact: Prolonged skin contact may cause mild irritation and/or redness. May cause sensitization by skin contact. Risk of sensitization or allergic reactions among sensitive individuals.

11.1p Eye contact: Spray and vapor in the eyes may cause irritation and smarting.

11.1q Symptoms related to the physical, chemical and toxicological characteristics: May cause sensitization by skin contact.

11.1r Delayed and immediate effects as well as chronic effects from short and long term exposure: Not determined.

11.1s Numerical measures of toxicity (such as acute toxicity estimates): Not determined.

11.1t Interactive effects: Not determined.

11.1u Absence of specific data: Not applicable.

11.1v Mixtures: Item is a mixture.

11.1w Mixture vs. substance information: See Section 3 for any substances in the mixture.

11.1x Classification by National Toxicity Program (NTP): Not classified.

11.1y Classification by International Agency for Research on Cancer (IARC): Not classified.

11.1z Classification by OSHA 13: Not classified.

Section 12: Ecological information

12.1 Toxicity: 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).

12.1b Ecotoxicity (aquatic and terrestrial, where available): Not determined.

12.2 Persistence and degradability: There are no data on the degradability of this product.

12.3 Bioaccumulative potential: No data available on bioaccumulation.

12.4 Mobility in soil: Mobility in soil is unknown (the product is soluble in water).

12.5 Results of PBT and vPvB assessment: Not determined.

12.6 Other adverse effects: The product contains a substance that may cause long term adverse effects in the aquatic environment. However, at the concentrations present, this product does not need to be classified as hazardous for the environment, and the effects are not expected to be significant.

Section 13: Disposal considerations

13.1 Waste treatment methods: When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1a Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS.

Section 14: Transport information

14.1 UN number: Not applicable.

14.2 UN proper shipping name: Not applicable.

14.3 Transport hazard class(es): Not applicable.

14.4 Packing group: Not applicable.

14.5 Environmental hazards:.

14.5a Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?: No.

14.5b Is it a marine pollutant according to the IMDG code?: No.

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC code: Not applicable.

14.7a Other information: The product is not considered a dangerous good for transport.

14.7b Classification for other modes of transport: Contact supplier.
### Section 15: Regulatory information

<table>
<thead>
<tr>
<th>subsection</th>
<th>content</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.1</td>
<td>Safety, health and environmental regulations/legislation specific for the substance or mixture:</td>
</tr>
<tr>
<td>15.1a</td>
<td>Regional safety, health and environmental regulations specific for the product in question:</td>
</tr>
<tr>
<td>15.1b</td>
<td>USA SARA Components (such as 302/311/313): EDTA, CAS #60-00-4, is listed.</td>
</tr>
<tr>
<td>15.1c</td>
<td>USA Massachusetts Right to Know: EDTA, CAS #60-00-4, is listed.</td>
</tr>
<tr>
<td>15.1d</td>
<td>USA Pennsylvania Right to Know: EDTA, CAS #60-00-4, is listed.</td>
</tr>
<tr>
<td>15.1e</td>
<td>USA New Jersey Right to Know: EDTA, CAS #60-00-4, is listed.</td>
</tr>
<tr>
<td>15.1f</td>
<td>USA California Prop. 65 Components: Not listed.</td>
</tr>
<tr>
<td>15.1g</td>
<td>EU Regulation 1907/2006 (REACH): Not listed.</td>
</tr>
<tr>
<td>15.1h</td>
<td>Annex XIV substances subject to authorization: Not listed.</td>
</tr>
<tr>
<td>15.1i</td>
<td>Substances of very high concern: Not listed.</td>
</tr>
<tr>
<td>15.1j</td>
<td>Approved code of practice: Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.</td>
</tr>
<tr>
<td>15.1k</td>
<td>Guidance notes: Workplace exposure limits EH40.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>subsection</th>
<th>content</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.2</td>
<td>Chemical safety assessment: Not required.</td>
</tr>
<tr>
<td>15.2a</td>
<td>Other regulatory information: None.</td>
</tr>
</tbody>
</table>

### Section 16: Other information

<table>
<thead>
<tr>
<th>subsection</th>
<th>content</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.1</td>
<td>Other information:</td>
</tr>
<tr>
<td>16.1a</td>
<td>Date of revision: 2017-04-28</td>
</tr>
<tr>
<td>16.1b</td>
<td>SDS number and revision: F17-518-2-C</td>
</tr>
<tr>
<td>16.1c</td>
<td>Supersedes SDS number and revision: F17-518-2-B</td>
</tr>
<tr>
<td>16.1d</td>
<td>Changes made to the previous version of the SDS: Updated information related to ProClin300; added EDTA to Section 15; and updated to comply with EC 1272/2008 CLP regulations, EC 830/2015.</td>
</tr>
<tr>
<td>16.1f</td>
<td>Full text of hazard statements and/or precautionary statements not written out in full elsewhere:</td>
</tr>
<tr>
<td>DISCLAIMER:</td>
<td>This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company’s knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user’s responsibility to satisfy himself as to the suitability of such information for his own particular use.</td>
</tr>
</tbody>
</table>
**SAFETY DATA SHEET (SDS)**

according to Regulation (EC) No. 830/2015 amending 1907/2006

### Section 1: Identification of the substance/mixture and of the company/undertaking

<table>
<thead>
<tr>
<th>1.1</th>
<th><strong>Product identifier:</strong></th>
<th>IgM-Reducing Assay Diluent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1a</td>
<td>Other means of identification:</td>
<td>.</td>
</tr>
<tr>
<td>1.1b</td>
<td>Alternative product name(s)/ synonyms:</td>
<td>AD2</td>
</tr>
<tr>
<td>1.1c</td>
<td>Product number/Catalog #(s):</td>
<td>519, 623, 624, 625, 672</td>
</tr>
<tr>
<td>1.1d</td>
<td>Internal identification:</td>
<td>AD2</td>
</tr>
</tbody>
</table>

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

- For research use only. Not for use in diagnostic procedures.

- A buffered solution designed to equalize matrix differences in ELISAs.

### Section 2: Hazards identification

#### 2.1 Classification of the substance or mixture:

- **Product is a:** Mixture.
- **Classification according to (EC) No. 1272/2008 (CLP):** Eye Dam. 1, H318 Causes serious eye damage.

#### 2.2 Label elements:

- GHS label elements, including precautionary statements:

- **Contains:** ≥ 3 - < 5% Sodium Metabisulfite

### Section 3: Composition/information on ingredients

#### 3.1 Substance:

Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.

#### 3.2 Mixture:

Item is a mixture.
The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:

<table>
<thead>
<tr>
<th>3.2a Chemical identity:</th>
<th>Sodium Metabisulfite</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2b Common name, synonyms, etc.:</td>
<td>Sodium disulfite Sodium pyrosulfite Chemical formula: $\text{Na}_2\text{S}_2\text{O}_5$ Molecular weight: 190.10</td>
</tr>
<tr>
<td>3.2c CAS number and other unique identifiers:</td>
<td>3.2d EC number: 3.2e % Concentration: 3.2f Classification according to (EC) No. 1272/2008 (CLP):</td>
</tr>
<tr>
<td>CAS # 7681-57-4. Index # 016-063-00-2.</td>
<td>231-673-0</td>
</tr>
</tbody>
</table>

3.2u Other information on the mixture: None.

### Section 4: First aid measures

#### 4.1 Description of first aid measures:

If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before reuse. Never give anything to an unconscious person.

- **4.1a Inhalation:** Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

- **4.1b Skin contact:** Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.

- **4.1c Eye contact:** Get medical attention immediately! Call a poison center or physician. Immediately wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Chemical burns must be treated immediately by a physician.

- **4.1d Ingestion:** NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues.

#### 4.2 Most important symptoms and effects, both acute and delayed:

Refer to Sections 2 and 11 for most important known symptoms and effects.

- **4.2a Inhalation:** May cause coughing or mild irritation.

- **4.2b Skin contact:** Prolonged skin contact may cause mild irritation.

- **4.2c Eye contact:** Causes serious eye damage.

- **4.2d Ingestion:** May cause discomfort if swallowed.

#### 4.3 Indication of any immediate medical attention and special treatment needed:

No specific first aid measures noted, but first aid may still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly!

- **4.3a Notes to physician/first responder:** Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.

### Section 5: Firefighting measures

#### 5.1 Extinguishing media:

This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials.

- **5.1a Suitable extinguishing media:** Water spray, foam, dry powder, or carbon dioxide.

- **5.1b Unsuitable extinguishing media:** None known.

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

This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.

- **5.2a Hazardous combustion products:** None under normal conditions.

- **5.2b Unusual fire & explosion hazards:** No unusual fire or explosion hazards noted.

- **5.2c Protective measures in fire:** Use protective equipment appropriate for surrounding materials.

#### 5.3 Advice for firefighters:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

- **5.3a Special firefighting procedures:** No specific firefighting procedure given.

- **5.3b Special protective equipment and precautions for firefighters:** Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### Section 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment, and emergency procedures:

Use protective equipment appropriate for surrounding materials.

- **6.1a General release measures:** No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).
6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:
No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.

6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures:
Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).

6.2 Environmental precautions:
Do not allow to enter drains, sewers, or watercourses.

6.3 Methods and materials for containment and clean up:
Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable container for disposal in accordance with local waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapor.

6.4 Reference to other sections:
Refer to Sections 8 and 13 for additional information.

Section 7: Handling and storage

7.1 Precautions for safe handling:
Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.

7.1a Prevent handling of incompatible substances or mixtures:
Avoid contact with strong acids and strong oxidizers.

7.1b Advice on general occupational hygiene:
Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.

7.2 Conditions for safe storage, including any incompatibilities:
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.

7.3 Specific end use(s):
For research use only. Not for use in diagnostic procedures.

Section 8: Exposure controls/personal protection

8.1 Control parameters:

8.1a Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.
Sodium Metabisulfite: ACGIH TLV (United States, 3/2016); TWA: 5 mg/m³ 8 hours; OSHA PEL 1989 (United States, 3/1989); TWA: 5 mg/m³ 8 hours; NIOSH REL (United States, 10/2013); TWA: 5 mg/m³ 10 hours. EH40/2005 WELs (United Kingdom (UK), 12/2011) TWA: 5 mg/m³ 8 hours.

8.1b Appropriate engineering controls:

8.1c Individual protection measures, such as personal protective equipment:
Wear gloves, protective goggles, and lab coat.

8.1d Safety symbols:

8.2 Exposure controls:

8.2a Process conditions:
Provide eyewash station.

8.2b Engineering controls:
Ensure that eyewash stations and safety showers are proximal to the workstation location.

8.2c Ventilation controls:
Provide adequate ventilation.

8.2d Reference to other sections:
Refer to Section 5 for additional information.

8.2e Eye/face protection:
Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.

8.2f Skin protection:
Wear apron or protective clothing in case of contact.

8.2g Hand protection:
Use suitable protective gloves if risk of skin contact.

8.2h Respiratory equipment:
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2i Other protection:
Wear appropriate clothing to avoid skin contact.

8.2j Hygiene measures:
DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any
clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated

### Section 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance (physical state, color, etc.)</td>
<td>Liquid; clear or white.</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH</td>
<td>6.4-6.6</td>
</tr>
<tr>
<td>Melting point/freezing point (°C)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>&lt;100 °C @ 760 mm Hg.</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density (Air =1)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Partition coefficient (N-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

#### 9.2 Other information:

- None.

#### 9.2a Other physical or chemical parameters:

- None.

### Section 10: Stability and reactivity

#### 10.1 Reactivity:

- No data available.

#### 10.2 Chemical stability:

- Stable under normal temperature conditions.

#### 10.3 Possibility of hazardous reactions:

- Hazardous polymerization: will not polymerize.

#### 10.4 Conditions to avoid:

- To avoid product degradation, avoid exposure to high temperatures or direct sunlight or light.

#### 10.5 Incompatible materials:

- Strong acids. Strong oxidizing substances.

#### 10.6 Hazardous decomposition products:

- Fire creates: vapors/gases/fumes of: carbon monoxide (CO), carbon dioxide (CO2), and nitrous gases (NOx).

### Section 11: Toxicological information

#### 11.1 Information on toxicological effects:

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Sodium Metabisulfite</td>
</tr>
<tr>
<td>Acute toxicity</td>
<td>Sodium Metabisulfite: Oral LD50 Rat 1131 mg/kg</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Sodium Metabisulfite: Dermal LD50 Rat &gt;2000 mg/kg</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Eyes - Rabbit. Result: risk of serious damage to eyes (OECD Test Guideline 405).</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Sodium Metabisulfite: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Information on the likely routes of exposure</td>
<td>May enter by ingestion; skin and/or eye contact; inhalation of vapors/mist/dust.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May cause discomfort if swallowed.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>In high concentrations, vapors may irritate throat and respiratory system and cause coughing.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Prolonged contact may cause redness, irritation, and dry skin.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>Symptoms related to the physical, chemical</td>
<td>No specific symptoms noted.</td>
</tr>
<tr>
<td>toxicological characteristics</td>
<td></td>
</tr>
<tr>
<td>Delayed and immediate effects as well as chronic effects from short and long term exposure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Numerical measures of toxicity (such as acute toxicity estimates)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Interactive effects</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Absence of specific data</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>
### Section 12: Ecological information

#### 12.1 Toxicity:

**12.1a Name:** Sodium Metabisulfite.

**12.1b Ecotoxicity (aquatic and terrestrial, where available):**

- Sodium metabisulphite: Acute LC50 32 mg/l Fresh water Fish - Lepomis macrochirus 96 hours. LC50 Oncorhynchus mykiss (rainbow trout) 150-220 mg/L - 96 h. EC50 Daphnia magna (water flea) 89 mg/L - 24 h. IC50 Desmodesmus subspicatus (green algae) 48 mg/L - 72 h. Pseudomonas putida (bacteria) - 56 mg/L - 17 h.

#### 12.2 Persistence and degradability:

There are no data on the degradability of this product.

#### 12.3 Bioaccumulative potential:

No data available on bioaccumulation.

#### 12.4 Mobility in soil:

No data available.

#### 12.5 Results of PBT and vPvB assessment:

Not determined.

#### 12.6 Other adverse effects:

The product contains a substance that is toxic to aquatic organisms and that may cause long term adverse effects in the aquatic environment. However, at the concentrations present, this product does not need to be classified as hazardous for the environment, and the effects are not expected to be significant.

### Section 13: Disposal considerations

#### 13.1 Waste treatment methods:

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

**13.1a Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:**

Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS.

### Section 14: Transport information

#### 14.1 UN number:

Not applicable.

#### 14.2 UN proper shipping name:

Not applicable.

#### 14.3 Transport hazard class(es):

Not applicable.

#### 14.4 Packing group:

Not applicable.

#### 14.5 Environmental hazards:

Not applicable.

#### 14.5a Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?:

No.

#### 14.5b Is it a marine pollutant according to the IMDG code?:

No.

#### 14.6 Special precautions for user:

None known.

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC code:

Not applicable.

#### 14.7a Other information:

The product is not considered a dangerous good for transport.

#### 14.7b Classification for other modes of transport:

Contact supplier.

### Section 15: Regulatory information

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

Not listed.

#### 15.1a Regional safety, health and environmental regulations specific for the product in question:

Not listed.

#### 15.1b USA SARA Components (such as 302/311/313): Sodium azide (CAS # 26628-22-8) is listed under 302, 304, 313. Sodium metabisulfite is listed under SARA 311/312 as an acute health hazard, chronic health hazard.

#### 15.1c USA Massachusetts Right to Know:

Sodium azide (CAS # 26628-22-8) is listed.

#### 15.1d USA Pennsylvania Right to Know:

Sodium azide (CAS # 26628-22-8) and Sodium metabisulfite (CAS# 7681-57-4) are listed.

#### 15.1e USA New Jersey Right to Know:

Sodium azide (CAS # 26628-22-8) and Sodium metabisulfite (CAS# 7681-57-4 as disulfurous acid, disodium salt) are listed.

#### 15.1f USA California Prop. 65 Components:

Not listed.

#### 15.1g EU Regulation 1907/2006 (REACH):

Not listed.

#### 15.1h Annex XIV substances subject to authorization:

Not listed.

#### 15.1i Substances of very high concern:

Not listed.

#### 15.1j Approved code of practice:

Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.

#### 15.1k Guidance notes:

Workplace exposure limits EH40.

#### 15.1l EU legislation references:

### 15.2 Chemical safety assessment:

Not required.

### Section 16: Other information

#### 16.1 Other information:

<table>
<thead>
<tr>
<th>Subsection</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.1a</td>
<td>Date of revision: 09-Jun-17</td>
</tr>
<tr>
<td>16.1b</td>
<td>SDS number and revision: F17-519-2-C</td>
</tr>
<tr>
<td>16.1c</td>
<td>Supersedes SDS number and revision: F17-519-2-B</td>
</tr>
<tr>
<td>16.1d</td>
<td>Changes made to the previous version of the SDS: Updated to comply with EC 1272/2008 CLP regulations, EC 830/2015.</td>
</tr>
<tr>
<td>16.1f</td>
<td>Full text of hazard statements and/or precautionary statements not written out in full elsewhere: All statements were written out in full.</td>
</tr>
</tbody>
</table>

#### DISCLAIMER:

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company’s knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user’s responsibility to satisfy himself as to the suitability of such information for his own particular use.

END OF SDS
## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier:

- **Neptune™ Assay Diluent**

### 1.1a Other means of identification:

- AD3

### 1.1b Alternative product name(s)/synonyms:

- AD3

### 1.1c Product number/Catalog #:

- 522, 626, 627, 628, 673

### 1.1d Internal identification:

- AD3

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

- **For research use only. Not for use in diagnostic procedures.**

### 1.2a Brief description of what the substance or mixture is intended to do:

- A buffered solution designed to equalize matrix differences in ELISAs.

### 1.3 Details of the supplier of the SDS:

- **Name:** ImmunoChemistry Technologies, LLC (ICT)
- **Address:** 9401 James Avenue South, Suite 155
- **City, State, Zip, Country:** Bloomington, MN 55431-2500 USA
- **Phone number:** 1-800-829-3194 and 952-888-8788
- **Fax number:** 952-888-8988
- **Website:** www.immunochemistry.com
- **Email:** help@immunochemistry.com
- **Contact person at ICT:** Quality Documentation Department

### 1.4 Emergency telephone number:

- **ICT:** 1-800-829-3194 (USA & Canada) or 952-888-8788 worldwide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.

## Section 2: Hazards identification

### 2.1 Classification of the substance or mixture:

- **Product is a:** Mixture.
- **Classification according to (EC) No. 1272/2008 (CLP):** Does not meet the criteria for classification.
- **The most important adverse physiochemical, human health, and environmental effects:** Refer to Sections 9-12.

### 2.2 Label elements:

- **GHS label elements, including precautionary statements:** Not applicable.
- **Contains:** Not applicable.
- **Labeling in accordance with (EC) No. 1272/2008:** None.
- **Hazard Pictograms (Hazard Symbols):** None.
- **Signal word:** None.
- **Hazard statements:** None.
- **Precautionary statements:** None.
- **Supplementary precaution statements:** None.

### 2.3 Other hazards:

- **Does the chemical meet the criteria for PBT or vPvB?** Not applicable.

### 2.3a Other hazards which do not result in classification:

- Contains ≤ 0.1% Sodium Azide (CAS #26628-22-8; EC #247-852-1) which is below the threshold for hazard classification. Contains salts and phosphates which are below the threshold for hazard classification, but may cause redness and irritation after prolonged exposure.

## Section 3: Composition/information on ingredients

### 3.1 Substance:

- **Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.**

### 3.2 Mixture:

- **The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:** Item is a mixture.

#### 3.2a Chemical identity:

- Triton X-100

#### 3.2b Common name, synonyms, etc.:

- Triton X-100: C14H22O(C2H4O)n; 4-(1,1,3,3-Tetramethylbutyl)phenyl-polyethylene glycol, t-Octylphenoxypolyethoxyethanol, Polyethylene glycol tert-octylphenyl ether

#### 3.2c CAS number and other unique identifiers:

<table>
<thead>
<tr>
<th>CAS number</th>
<th>EC number</th>
</tr>
</thead>
<tbody>
<tr>
<td>9002-93-1</td>
<td>618-344-0</td>
</tr>
</tbody>
</table>

#### 3.2d Concentration:

- ≥ 0.1 - < 2.5%

#### 3.2f Classification according to (EC) No. 1272/2008 (CLP):

- Acute Tox. 4, H302 Harmful if swallowed.
Section 4: First aid measures

4.1 Description of first aid measures:
If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before reuse. Never give anything to an unconscious person.

4.1a Inhalation:
Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

4.1b Skin contact:
Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.

4.1c Eye contact:
Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.1d Ingestion:
NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues.

4.2 Most important symptoms and effects, both acute and delayed:
Refer to Sections 2 and 11 for most important known symptoms and effects.

4.2a Inhalation:
May cause coughing or mild irritation.

4.2b Skin contact:
Prolonged skin contact may cause redness and mild irritation.

4.2c Eye contact:
May cause temporary eye irritation.

4.2d Ingestion:
May cause discomfort if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed:
No specific first aid measures noted, but first aid may still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly!

4.3a Notes to physician/first responder:
Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.

Section 5: Firefighting measures

5.1 Extinguishing media:
This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials.

5.1a Suitable extinguishing media:
Water spray, foam, dry powder, or carbon dioxide.

5.1b Unsuitable extinguishing media:
None known.

5.2 Special hazards arising from the substance or mixture:
This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.

5.2a Hazardous combustion products:
None under normal conditions.

5.2b Unusual fire & explosion hazards:
No unusual fire or explosion hazards noted.

5.2c Protective measures in fire:
Use protective equipment appropriate for surrounding materials.

5.3 Advice for firefighters:
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

5.3a Special firefighting procedures:
No specific firefighting procedure given.

5.3b Special protective equipment and precautions for firefighters:
Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures:
Use protective equipment appropriate for surrounding materials.

6.1a General release measures:
No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).

6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:
No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves and eye or face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any
contamination. Consult professional emergency personnel if concerned.

6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures:

- Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).

6.2 Environmental precautions:

- Do not allow to enter drains, sewers, or watercourses.

6.3 Methods and materials for containment and clean up:

- Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable container for disposal in accordance with local waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapor.

6.4 Reference to other sections:

- Refer to Sections 8 and 13 for additional information.

Section 7: Handling and storage

7.1 Precautions for safe handling:

- Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.

7.1a Prevent handling of incompatible substances or mixtures:

- Avoid contact with strong acids and strong oxidizers.

7.1b Advice on general occupational hygiene:

- Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.

7.2 Conditions for safe storage, including any incompatibilities:

- Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.

7.3 Specific end use(s):

- For research use only. Not for use in diagnostic procedures.

Section 8: Exposure controls/personal protection

8.1 Control parameters:

8.1a Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.

- Triton X-100, not available.

8.1b Appropriate engineering controls:

- Provide eyewash station.

8.1c Individual protection measures, such as personal protective equipment:

- Wear gloves, protective goggles, and lab coat.

8.1d Safety symbols:

8.2 Exposure controls:

8.2a Process conditions:

- Provide eye/face protection: Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.

8.2b Engineering controls:

- Ensure that eyewash stations and safety showers are proximal to the workstation location.

8.2c Ventilation controls:

- Provide adequate ventilation.

8.2d Reference to other sections:

- Refer to Section 5 for additional information.

8.2e Eye/face protection:

- Wear apron or protective clothing in case of contact.

8.2f Hand protection:

- Use suitable protective gloves if risk of skin contact.

8.2h Respiratory equipment:

- Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2i Other protection:

- Wear appropriate clothing to avoid skin contact.

8.2j Hygiene measures:

- DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated.
8.2k Thermal hazards: None known under normal conditions of use.

8.2l Environmental exposure controls: Not determined.

### Section 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance (physical state, color, etc.)</td>
<td>Liquid; light (or pale) yellow.</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH</td>
<td>7.2-7.6</td>
</tr>
<tr>
<td>Melting point/freezing point (°C)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range (°C)</td>
<td>&lt;100°C @ 760 mm Hg.</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density (Air =1)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Partition coefficient (N-octanol/water)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Other physical or chemical parameters</td>
<td>None.</td>
</tr>
</tbody>
</table>

#### 9.2 Other information:

### Section 10: Stability and reactivity

#### 10.1 Reactivity:

No data available.

#### 10.2 Chemical stability:

Stable under normal temperature conditions.

#### 10.3 Possibility of hazardous reactions:

Hazardous polymerization: will not polymerize.

#### 10.4 Conditions to avoid:

To avoid product degradation, avoid exposure to high temperatures or direct sunlight or light.

#### 10.5 Incompatible materials:


#### 10.6 Hazardous decomposition products:

Fire creates: vapors/gases/fumes of: carbon monoxide (CO), carbon dioxide (CO₂), and nitrous gases (NOₓ).

### Section 11: Toxicological information

#### 11.1 Information on toxicological effects:

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Triton X-100</td>
</tr>
<tr>
<td>Acute toxicity</td>
<td>LD50 Oral Rat 1800 mg/kg</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Mild Irritant, Rabbit, 24-hours, 500 microliters</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Moderate Irritant, Rabbit, 24-hours, 10 microliters</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)</td>
<td>May enter by ingestion; skin and/or eye contact; inhalation of vapors/mist/dust.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May cause discomfort if swallowed.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>In high concentrations, vapors may irritate throat and respiratory system and cause coughing.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Prolonged skin contact may cause mild irritation and/or redness. May cause sensitization by skin contact. Risk of sensitization or allergic reactions among sensitive individuals.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Spray and vapor in the eyes may cause irritation and smarting.</td>
</tr>
<tr>
<td>Symptoms related to the physical, chemical and toxicological characteristics</td>
<td>No specific symptoms noted.</td>
</tr>
<tr>
<td>Delayed and immediate effects as well as chronic effects from short and long term exposure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Numerical measures of toxicity (such as acute toxicity estimates)</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Interactive effects</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Absence of specific data</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Mixtures</td>
<td>Item is a mixture.</td>
</tr>
</tbody>
</table>
### Section 12: Ecological information

#### 12.1 Toxicity:
- **Name:** Triton X-100
- **Ecotoxicity (aquatic and terrestrial, where available):** Triton X-100: LC50 4500 μg/l Fresh water Fish 96-hours

#### 12.2 Persistence and degradability:
- There are no data on the degradability of this product.

#### 12.3 Bioaccumulative potential:
- No data available on bioaccumulation.

#### 12.4 Mobility in soil:
- Mobility in soil is unknown (the product is soluble in water).

#### 12.5 Results of PBT and vPvB assessment:
- Not determined.

#### 12.6 Other adverse effects:
- The product contains a substance that is toxic to aquatic organisms and that may cause long term adverse effects in the aquatic environment. However, at the concentrations present, this product does not need to be classified as hazardous for the environment, and the effects are not expected to be significant.

### Section 13: Disposal considerations

#### 13.1 Waste treatment methods:
- When handling waste, consideration should be made to the safety precautions applying to handling of the product.

#### 13.1a Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:
- Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS.

### Section 14: Transport information

#### 14.1 UN number:
- Not applicable.

#### 14.2 UN proper shipping name:
- Not applicable.

#### 14.3 Transport hazard class(es):
- Not applicable.

#### 14.4 Packing group:
- Not applicable.

#### 14.5 Environmental hazards:
- No.

#### 14.6 Special precautions for user:
- None known.

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC code:
- Not applicable.

#### 14.7a Other information:
- The product is not considered a dangerous good for transport.

#### 14.7b Classification for other modes of transport:
- Contact supplier.

### Section 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
- Triton X-100: EU Substance of Very High Concern, Name on List: 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated covering well-defined substances and UVCB substances, polymers and homologues); 4-tert-Octylphenol ethoxylates. Reference ED/169/2012 Revised 10-Feb-2014. This substance has "Recommended" Status to report quantities at or greater than 0.1%. Substance of Very High Concern, identified by the ECHA Member State Committee. Placed on the draft recommendation of substances to be added to Reach Annex XIV.

#### 15.1a Regional safety, health and environmental regulations specific for the product in question:
- Not listed.

#### 15.1b USA SARA Components (such as 302/311/313):
- Sodium azide (CAS # 26628-22-8) is listed under 302, 304, 313.

#### 15.1c USA Massachusetts Right to Know:
- Sodium azide (CAS # 26628-22-8) is listed.

#### 15.1d USA Pennsylvania Right to Know:
- Sodium azide (CAS # 26628-22-8) is listed.

#### 15.1e USA New Jersey Right to Know:
- Sodium azide (CAS # 26628-22-8) is listed.

#### 15.1f USA California Prop. 65 Components:
- Not listed.

#### 15.1g EU Regulation 1907/2006 (REACH):
- Not listed.

#### 15.1h Annex XIV substances subject to authorization:
- Not listed.

#### 15.1i Substances of very high concern:
- Triton X-100: EU Substance of Very High Concern, Name on List: 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated covering well-defined substances and UVCB substances, polymers and homologues); 4-tert-Octylphenol ethoxylates. Reference ED/169/2012 Revised 10-Feb-2014. This substance has "Recommended" Status to report quantities at or greater than 0.1%. Substance of Very High Concern, identified by the ECHA Member State Committee. Placed on the draft recommendation of substances to be added to Reach Annex XIV.

#### 15.1j Approved code of practice:
- Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.

#### 15.1k Guidance notes:
- Workplace exposure limits EH40.
### 15.1 EU legislation references:


### Section 16: Other information

<table>
<thead>
<tr>
<th>16.1 Other information:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16.1a Date of revision:</td>
<td>09-Jun-17</td>
</tr>
<tr>
<td>16.1b SDS number and revision:</td>
<td>F17-522-2-C</td>
</tr>
<tr>
<td>16.1c Supersedes SDS number and revision:</td>
<td>F17-522-2-B</td>
</tr>
<tr>
<td>16.1d Changes made to the previous version of the SDS:</td>
<td>Updated to comply with EC 1272/2008 CLP regulations, EC 830/2015.</td>
</tr>
<tr>
<td>16.1f Full text of hazard statements and/or precautionary statements not written out in full elsewhere:</td>
<td>All statements were written out in full.</td>
</tr>
</tbody>
</table>

**DISCLAIMER:** This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

END OF SDS
SAFETY DATA SHEET (SDS)
according to Regulation (EC) No. 830/2015 amending 1907/2006

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

1.1 Product identifier: Antigen-Down Assay Diluent

1.1a Other means of identification: .

1.1b Alternative product name(s)/ synonyms: AD4

1.1c Product number/Catalog #(#s): 523, 629, 630, 631, 674

1.1d Internal identification: AD4

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

For research use only. Not for use in diagnostic procedures.

1.2a Brief description of what the substance or mixture is intended to do:
A buffered solution designed to equalize matrix differences in ELISAs.

1.3 Details of the supplier of the SDS:

1.3a Name: ImmunoChemistry Technologies, LLC (ICT)

1.3b Address: 9401 James Avenue South, Suite 155

1.3c City, State, Zip, Country Bloomington, MN 55431-2500 USA

1.3d Phone number: 1-800-829-3194 and 952-888-8788

1.3e Fax number: 952-888-8988

1.3f Website: www.immunochemistry.com

1.3g Email: help@immunochemistry.com

1.3h Contact person at ICT: Quality Documentation Department

1.4 Emergency telephone number:

ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

2.1a Product is a: Mixture.

2.1b Classification according to (EC) No. 1272/2008 (CLP):
Skin Sens. 1, H317 May cause an allergic skin reaction.

2.1c The most important adverse physiochemical, human health, and environmental effects:
Refer to Sections 9-12.

2.2 Label elements:

2.2a GHS label elements, including precautionary statements:

2.2b Contains:

≤0.0085% of 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).

2.2c Labeling in accordance with (EC) No. 1272/2008:

2.2d Hazard Pictograms (Hazard Symbols):

GHS07 Exclamation.

2.2e Signal word: Warning.

2.2f Hazard statements:

H317 May cause an allergic skin reaction.

2.2g Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P333+313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.2h Supplementary precaution statements:

P272 Contaminated work clothing should not be allowed out of the workplace.
P363 Wash contaminated clothing before reuse.

2.3 Other hazards:

No additional information available.

2.3a Does the chemical meet the criteria for PBT or vPvB? Not applicable.
2.3b Other hazards which do not result in classification: Contains salts and phosphates which are below the threshold for hazard classification, but may cause redness and irritation after prolonged exposure.

### Section 3: Composition/information on ingredients

#### 3.1 Substance:
Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.

#### 3.2 Mixture:
The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:

- **3.2a Chemical identity:**
  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).

- **3.2b Common name, synonyms, etc.:** ProClin300 (ProClin® is a registered trademark of Dow Chemical Company)

<table>
<thead>
<tr>
<th>3.2c CAS number and other unique identifiers:</th>
<th>3.2d EC number:</th>
<th>3.2e % Concentration:</th>
<th>3.2f Classification according to (EC) No. 1272/2008 (CLP):</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 55965-84-9; Annex VI Index: 613-167-00-5</td>
<td>220-239-6</td>
<td>≤0.0085%</td>
<td>Acute Tox. 3 H301, H311, H331; Skin Corr. 1B H314; Skin Sens. 1 H317; Aquatic Acute 1 H400; Aquatic Chronic 1 H410.</td>
</tr>
</tbody>
</table>

3.2u Other information on the mixture: None.

### Section 4: First aid measures

#### 4.1 Description of first aid measures:
If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

- **4.1a Inhalation:** Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

- **4.1b Skin contact:** Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.

- **4.1c Eye contact:** Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

- **4.1d Ingestion:** NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues.

#### 4.2 Most important symptoms and effects, both acute and delayed:
Refer to Sections 2 and 11 for most important known symptoms and effects.

- **4.2a Inhalation:** May cause coughing or mild irritation.

- **4.2b Skin contact:** Prolonged skin contact may cause mild irritation.

- **4.2c Eye contact:** May cause temporary eye irritation.

- **4.2d Ingestion:** May cause discomfort if swallowed.

#### 4.3 Indication of any immediate medical attention and special treatment needed:
No specific first aid measures noted, but first aid may still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly!

- **4.3a Notes to physician/first responder:** Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.

### Section 5: Firefighting measures

#### 5.1 Extinguishing media:
This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials.

- **5.1a Suitable extinguishing media:** Water spray, foam, dry powder, or carbon dioxide.

- **5.1b Unsuitable extinguishing media:** None known.

#### 5.2 Special hazards arising from the substance or mixture:
This product is a liquid and is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.

- **5.2a Hazardous combustion products:** In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO2; COx), and nitrous gases (NOx). None under normal conditions.

- **5.2b Unusual fire & explosion hazards:** No unusual fire or explosion hazards noted.

- **5.2c Protective measures in fire:** Use protective equipment appropriate for surrounding materials.

#### 5.3 Advice for firefighters:
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

- **5.3a Special firefighting procedures:** No specific firefighting procedure given.
### 5.3b Special protective equipment and precautions for firefighters:
Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### Section 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment, and emergency procedures:
Use protective equipment appropriate for surrounding materials.

#### 6.1a General release measures:
No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).

#### 6.1b Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:
No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.

#### 6.1c Advice for emergency responders; personal precautions, protective equipment and emergency procedures:
Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).

#### 6.2 Environmental precautions:
Do not allow to enter drains, sewers, or watercourses.

#### 6.3 Methods and materials for containment and clean up:
Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable container for disposal in accordance with local waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapour.

#### 6.4 Reference to other sections:
Refer to Sections 8 and 13 for additional information.

### Section 7: Handling and storage

#### 7.1 Precautions for safe handling:
Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.

#### 7.1a Prevent handling of incompatible substances or mixtures:
Avoid contact with strong acids and strong oxidizers.

#### 7.1b Advice on general occupational hygiene:
Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.

#### 7.2 Conditions for safe storage, including any incompatibilities:
Refer to product label. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.

#### 7.3 Specific end use(s):
For research use only. Not for use in diagnostic procedures.

### Section 8: Exposure controls/personal protection

#### 8.1 Control parameters:

| 8.1a Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: | Not applicable. |
| 8.1b Appropriate engineering controls: | |
| 8.1c Individual protection measures, such as personal protective equipment: | Wear gloves, protective goggles, and lab coat. |
| 8.1d Safety symbols: | |

#### 8.2 Exposure controls:

| 8.2a Process conditions: | Provide eyewash station. |
8.2b Engineering controls: Ensure that eyewash stations and safety showers are proximal to the workstation location.

8.2c Ventilation controls: Provide adequate ventilation.

8.2d Reference to other sections: Refer to Section 5 for additional information.

8.2e Eye/face protection: Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.

8.2f Skin protection: Wear apron or protective clothing in case of contact.

8.2g Hand protection: Use suitable protective gloves if risk of skin contact.

8.2h Respiratory equipment: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2i Other protection: Wear appropriate clothing to avoid skin contact.

8.2j Hygiene measures: DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated.

8.2k Thermal hazards: None known under normal conditions of use.

8.2l Environmental exposure controls: Not determined.

Section 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>9.1</th>
<th>Information on basic physical and chemical properties:</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1a</td>
<td>Appearance (physical state, color, etc.): Liquid; light (or pale) yellow.</td>
</tr>
<tr>
<td>9.1b</td>
<td>Odor: Characteristic.</td>
</tr>
<tr>
<td>9.1c</td>
<td>Odor threshold: Not determined.</td>
</tr>
<tr>
<td>9.1d</td>
<td>pH: 7.2-7.6</td>
</tr>
<tr>
<td>9.1e</td>
<td>Melting point/freezing point (°C): Not determined.</td>
</tr>
<tr>
<td>9.1f</td>
<td>Initial boiling point and boiling range: &lt;100°C @ 760 mm Hg.</td>
</tr>
<tr>
<td>9.1g</td>
<td>Flash point (°C): Not applicable.</td>
</tr>
<tr>
<td>9.1h</td>
<td>Evaporation rate: Not determined.</td>
</tr>
<tr>
<td>9.1i</td>
<td>Flammability (solid, gas): Not applicable.</td>
</tr>
<tr>
<td>9.1j</td>
<td>Upper/lower flammability or explosive limits: Not applicable.</td>
</tr>
<tr>
<td>9.1k</td>
<td>Vapor pressure: Not determined.</td>
</tr>
<tr>
<td>9.1l</td>
<td>Vapor density (Air =1): Not determined.</td>
</tr>
<tr>
<td>9.1m</td>
<td>Relative density: Not determined.</td>
</tr>
<tr>
<td>9.1n</td>
<td>Solubility(ies): Soluble in water.</td>
</tr>
<tr>
<td>9.1o</td>
<td>Partition coefficient (N-octanol/water): Not determined.</td>
</tr>
<tr>
<td>9.1p</td>
<td>Auto-ignition temperature (°C): Not determined.</td>
</tr>
<tr>
<td>9.1q</td>
<td>Decomposition temperature (°C): Not determined.</td>
</tr>
<tr>
<td>9.1r</td>
<td>Viscosity: Not determined.</td>
</tr>
<tr>
<td>9.1s</td>
<td>Explosive properties: Not determined.</td>
</tr>
<tr>
<td>9.1t</td>
<td>Oxidizing properties: Not determined.</td>
</tr>
</tbody>
</table>

Section 10: Stability and reactivity

| 10.1 | Reactivity: No data available. |
| 10.2 | Chemical stability: Stable under normal temperature conditions. |
| 10.3 | Possibility of hazardous reactions: Hazardous polymerization: will not polymerize. |
| 10.4 | Conditions to avoid: To avoid product degradation, avoid exposure to high temperatures or direct sunlight or light. |
| 10.6 | Hazardous decomposition products: None under normal conditions. |

Section 11: Toxicological information

<p>| 11.1 | Information on toxicological effects: |
| 11.1a | Name: 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). |
| 11.1b | Acute toxicity: Oral LD50 53 mg/kg rat. Dermal LD50: 2800 mg/kg rabbit. |
| 11.1c | Skin corrosion/irritation: Not determined. |
| 11.1d | Serious eye damage/irritation: Not determined. |
| 11.1e | Respiratory or skin sensitization: Not determined. |</p>
<table>
<thead>
<tr>
<th>Section</th>
<th>Topic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.1f</td>
<td>Germ cell mutagenicity:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>11.1g</td>
<td>Carcinogenicity:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>11.1h</td>
<td>Reproductive toxicity:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>11.1i</td>
<td>STOT-single exposure:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>11.1j</td>
<td>STOT-repeated exposure:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>11.1k</td>
<td>Aspiration hazard:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>11.1l</td>
<td>Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):</td>
<td>May enter by ingestion; skin and/or eye contact; inhalation of vapors/mist/dust.</td>
</tr>
<tr>
<td>11.1m</td>
<td>Ingestion:</td>
<td>May cause discomfort if swallowed.</td>
</tr>
<tr>
<td>11.1n</td>
<td>Inhalation:</td>
<td>In high concentrations, vapors may irritate throat and respiratory system and cause coughing.</td>
</tr>
<tr>
<td>11.1o</td>
<td>Skin contact:</td>
<td>Prolonged skin contact may cause mild irritation and/or redness. May cause sensitization by skin contact. Risk of sensitization or allergic reactions among sensitive individuals.</td>
</tr>
<tr>
<td>11.1p</td>
<td>Eye contact:</td>
<td>Spray and vapor in the eyes may cause irritation and smarting.</td>
</tr>
<tr>
<td>11.1q</td>
<td>Symptoms related to the physical, chemical and toxicological characteristics:</td>
<td>May cause sensitization by skin contact.</td>
</tr>
<tr>
<td>11.1r</td>
<td>Delayed and immediate effects as well as chronic effects from short and long term exposure:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>11.1s</td>
<td>Numerical measures of toxicity (such as acute toxicity estimates):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>11.1t</td>
<td>Interactive effects:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>11.1u</td>
<td>Absence of specific data:</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>11.1v</td>
<td>Mixtures:</td>
<td>Item is a mixture.</td>
</tr>
<tr>
<td>11.1w</td>
<td>Mixture vs. substance information:</td>
<td>See Section 3 for any substances in the mixture.</td>
</tr>
<tr>
<td>11.1x</td>
<td>Classification by National Toxicity Program (NTP):</td>
<td>Not classified.</td>
</tr>
<tr>
<td>11.1y</td>
<td>Classification by International Agency for Research on Cancer (IARC):</td>
<td>Not classified.</td>
</tr>
<tr>
<td>11.1z</td>
<td>Classification by OSHA 13:</td>
<td>Not classified.</td>
</tr>
<tr>
<td>11.1ab</td>
<td>Other information:</td>
<td>None.</td>
</tr>
</tbody>
</table>

**Section 12: Ecological information**

12.1 Toxicity:

12.1a Name: 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).

12.1b Ecotoxicity (aquatic and terrestrial, where available): Not determined.

12.2 Persistence and degradability: There are no data on the degradability of this product.

12.3 Bioaccumulative potential: No data available on bioaccumulation.

12.4 Mobility in soil: Mobility in soil is unknown (the product is soluble in water).

12.5 Results of PBT and vPvB assessment: Not determined.

12.6 Other adverse effects: The product contains a substance that may cause long term adverse effects in the aquatic environment. However, at the concentrations present, this product does not need to be classified as hazardous for the environment, and the effects are not expected to be significant.

**Section 13: Disposal considerations**

13.1 Waste treatment methods: When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1a Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging: Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS.

**Section 14: Transport information**

14.1 UN number: Not applicable.

14.2 UN proper shipping name: Not applicable.

14.3 Transport hazard class(es): Not applicable.

14.4 Packing group: Not applicable.

14.5 Environmental hazards: Not applicable.

14.5a Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)? No.

14.5b Is it a marine pollutant according to the IMDG code?: No.

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC code: Not applicable.

14.7a Other information: The product is not considered a dangerous good for transport.

14.7b Classification for other modes of transport: Contact supplier.
Section 15: Regulatory information

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

15.1a Regional safety, health and environmental regulations specific for the product in question:

15.1b USA SARA Components (such as 302/311/313): EDTA, CAS #60-00-4, is listed.

15.1c USA Massachusetts Right to Know: EDTA, CAS #60-00-4, is listed.

15.1d USA Pennsylvania Right to Know: EDTA, CAS #60-00-4, is listed.

15.1e USA New Jersey Right to Know: EDTA, CAS #60-00-4, is listed.

15.1f USA California Prop. 65 Components: Not listed.

15.1g EU Regulation 1907/2006 (REACH): Not listed.

15.1h Annex XIV substances subject to authorization: Not listed.

15.1i Substances of very high concern: Not listed.

15.1j Approved code of practice: Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.

15.1k Guidance notes: Workplace exposure limits EH40.


15.2 Chemical safety assessment: Not required.

15.2a Other regulatory information: None.

Section 16: Other information

16.1 Other information:

16.1a Date of revision: 2017-04-28

16.1b SDS number and revision: F17-523-2-C

16.1c Supersedes SDS number and revision: F17-523-2-B

16.1d Changes made to the previous version of the SDS: Updated information related to ProClin300; added EDTA to Section 15; and updated to comply with EC 1272/2008 CLP regulations, EC 830/2015.

16.1e Key/legend to abbreviations and acronyms used in the SDS:

ACGIH American Conference of Governmental Industrial Hygienists.
ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE Acute Toxicity Estimate.
BCF Bio Concentration Factor.
CAS Chemical Abstracts Service.
CLP Classification, Labelling and Packaging.
CMR Carcinogen, Mutagen or Reproductive toxicant.
COD Chemical Oxygen Demand.
EC European Commission.
EC50 Half maximal effective concentration.
EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations.
EINECS European Inventory of Existing Commercial chemical Substances.
ELINCS European List of Notified Chemical Substances.
EU European Union.
GHS Globally Harmonized System of Classification and Labelling of Chemicals.
H Statement GHS Hazard statement.
IATA International Air Transport Association.
IBC Intermediate Bulk Container.
IC50 Half maximal inhibitory concentration.
IMDG International Maritime Dangerous Goods.
LC50 Median lethal concentration.
LD50 Median lethal dose.
LogPow logarithm of the octanol/water partition coefficient.
OEL Occupational Exposure Limit.
OSHA Occupational Safety and Health Administration (USA).
PBT Persistent, Bioaccumulative, and Toxic.
PEL Permissible Exposure Limit.
RID The Regulations concerning the International Carriage of Dangerous Goods by Rail.
SADT Self-Accelerating Decomposition Temperature.
SARA Superfund Amendments and Reauthorization Act.
SCBA Self-Contained Breathing Apparatus.
SDS Safety Data Sheet.
STOT Specific Target Organ Toxicity.
STOT-RE Specific Target Organ Toxicity - Repeated Exposure.
STOT-SE Specific Target Organ Toxicity - Single Exposure.
UN United Nations.
USA United States of America.
vPvB very Persistent very bioaccumulative.

16.1f Full text of hazard statements and/or precautionary statements not written out in full elsewhere:

All statements were written out in full.

DISCLAIMER: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

END OF SDS