SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Name: Read Buffer (G, S, and T), PQ Low Control, Sector PR2 Read Buffer, CRP Read Buffer and Free Tag
Product Code: R92G*, R92S*, R92T*, R92RC, 3-3014-020009, 3-3026-02****

1.2. Intended Use of the Product

Laboratory chemicals

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

Company
Meso Scale Diagnostics
1601 Research Blvd
Rockville, MD 20850-3128
T 240-314-2600

1.4. Emergency Telephone Number

Emergency Number: CHEMTREC (24 hours Emergency line)
Within the U.S.: 800-424-9300
International: +1-703-527-3887 (call collect)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US classification
Flam. Liq. 3 H226
Acute Tox. 4 (Oral) H302
Skin Corr. 1B H314
Eye Dam. 1 H318

Full text of H-phrases: see section 16

2.2. Label Elements

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

Signal Word (GHS-US): Danger
Hazard Statements (GHS-US):
H226 - Flammable liquid and vapor.
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.

Precautionary Statements (GHS-US):
P210 - Keep away from extremely high or low temperatures, ignition sources, and incompatible materials. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical, ventilating, and lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves, protective clothing, and eye protection.
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing.
Rinse skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a poison center or doctor.
P321 - Specific treatment (see section 4 on this SDS).
P330 - Rinse mouth.
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use appropriate media (see section 5) to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards
May be corrosive to respiratory tract.

2.4. Unknown Acute Toxicity (GHS-US) No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>% (w/w)</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride</td>
<td>(CAS No) 1185-53-1</td>
<td>&lt; 0.1, 0.1 - 1, 1 - 5, 5 - 10, or 10 - 12.67</td>
<td>Skin Irrit. 2, H315, Eye Irrit. 2A, H319, STOT SE 3, H335</td>
</tr>
<tr>
<td>Glycine, N-glycyl-</td>
<td>(CAS No) 556-50-3</td>
<td>&lt; 0.1, 0.1 - 1, 1 - 5, 5 - 10, or 10 - 10.65</td>
<td>Eye Irrit. 2A, H319</td>
</tr>
<tr>
<td>Tripropylamine</td>
<td>(CAS No) 102-69-2</td>
<td>1.81 - 5 or 5 - 7.24</td>
<td>Flam. Liq. 3, H226, Acute Tox. 3 (Oral), H301, Acute Tox. 3 (Dermal), H311, Acute Tox. 4 (Inhalation:dust,mist), H332, Skin Corr. 1B, H314, Eye Dam. 1, H318, STOT SE 3, H335, Aquatic Acute 3, H402, Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-</td>
<td>(CAS No) 9002-93-1</td>
<td>&lt; 0.1 or 0.1 - 0.43</td>
<td>Acute Tox. 4 (Oral), H302, Skin Irrit. 2, H315, Eye Dam. 1, H318, Aquatic Acute 2, H401, Aquatic Chronic 2, H411</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

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

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor.

Eye Contact: Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention immediately.
**SECTION 5: FIRE-FIGHTING MEASURES**

5.1. Extinguishing Media

**Suitable Extinguishing Media:** Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. A heavy water stream may spread burning liquid.

5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Flammable liquid and vapor.

**Explosion Hazard:** May form flammable or explosive vapor-air mixture.

**Reactivity:** Reacts violently with strong oxidizers. Increased risk of fire or explosion.

5.3. Advice for Firefighters

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

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

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

**Hazardous Combustion Products:** Carbon oxides (CO, CO₂). Nitrogen compounds.

**Reference to Other Sections**

Refer to section 9 for flammability properties.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not get in eyes, on skin, or on clothing. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges. Do not breathe vapor, mist or spray.

6.1.1. For Non-Emergency Personnel

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

**Emergency Procedures:** Evacuate unnecessary personnel. Stop leak if safe to do so.

6.1.2. For Emergency Personnel

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

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

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

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

6.4. Reference to Other Sections

See Section 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.
SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable. May release corrosive vapors.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take precautionary measures against static discharge. Use only non-sparking tools. Handle empty containers with care because they may still present a hazard. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray.

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

7.2. Conditions for Safe Storage, Including Any Incompatibilities


Storage Conditions: Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place. Store in original container or corrosive resistant and/or lined container.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)

Laboratory chemicals

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

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

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment.


Materials for Protective Clothing: Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing. Corrosion-proof clothing.

Hand Protection: Wear protective gloves.

Eye Protection: Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

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

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear to yellow liquid
Odor: Amine-like
Odor Threshold: Not available
pH: 7.3 - 8
Evaporation Rate: Not available
SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.
10.2. Chemical Stability: Stable under recommended handling and storage conditions (see section 7).
10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
10.4. Conditions to Avoid: Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.
10.5. Incompatible Materials: Strong acids, strong bases, strong oxidizers.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product
Acute Toxicity: Oral: Harmful if swallowed.
LD₅₀ and LC₅₀ Data:

<table>
<thead>
<tr>
<th>Component</th>
<th>LD₅₀ Oral Rat</th>
<th>LC₅₀ (oral)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read Buffer and Free Tag</td>
<td></td>
<td>1,321.78 mg/kg body weight</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation: Causes severe skin burns and eye damage. pH: 7.3 - 8
Serious Eye Damage/Irritation: Causes serious eye damage. pH: 7.3 - 8
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Teratogenicity: Not available
Carcinogenicity: Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified

11.2. Information on Toxicological Effects - Ingredient(s)
LD₅₀ and LC₅₀ Data:

<table>
<thead>
<tr>
<th>Component</th>
<th>LD₅₀ Oral Rat</th>
<th>LC₅₀ (oral)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylamine (102-69-2)</td>
<td></td>
<td>96 mg/kg</td>
</tr>
</tbody>
</table>

Symptoms/Injuries After Inhalation: May be corrosive to the respiratory tract.
Symptoms/Injuries After Skin Contact: Causes severe irritation which will progress to chemical burns.
Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.
Symptoms/Injuries After Ingestion: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Harmful if swallowed.
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<table>
<thead>
<tr>
<th>Substance</th>
<th>LD50 Dermal Rat</th>
<th>LD50 Oral Rat</th>
<th>LC50 Inhalation Rat 4h</th>
<th>LC50 Inhalation Rat 4 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[4-(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy- (9002-93-1)</td>
<td>430 mg/kg</td>
<td>1800 mg/kg</td>
<td>5100 mg/m³ (Exposure time: 4 h)</td>
<td>1.125 mg/l/4h</td>
</tr>
</tbody>
</table>

**SECTION 12: ECOLOGICAL INFORMATION**

12.1. **Toxicity**

Ecology - General: Not classified.

<table>
<thead>
<tr>
<th>Substance</th>
<th>LC50 Fish 1</th>
<th>LC50 Fish 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylamine (102-69-2)</td>
<td>45.6 - 56.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])</td>
<td>3 mg/l</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylamine (102-69-2)</td>
<td>2.79</td>
</tr>
</tbody>
</table>

12.2. **Persistence and Degradability**

Persistence and Degradability: Not established.

12.3. **Bioaccumulative Potential**

Bioaccumulative Potential: Not established.

12.4. **Mobility in Soil**

Mobility in Soil: Not available.

12.5. **Other Adverse Effects**

Other Adverse Effects: Not available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

13.1. **Waste treatment methods**

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

Additional Information: Handle empty containers with care because residual vapors are flammable.


**SECTION 14: TRANSPORT INFORMATION**

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

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

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

14.4. **In Accordance with TDG** Not regulated for transport

**SECTION 15: REGULATORY INFORMATION**

15.1. **US Federal Regulations**

SARA Section 311/312 Hazard Classes: Fire hazard

Immediate (acute) health hazard

<table>
<thead>
<tr>
<th>Substance</th>
<th>SARA Section 311/312 Hazard Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylamine (102-69-2)</td>
<td>Fire hazard Immediate (acute) health hazard</td>
</tr>
<tr>
<td>1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride (1185-53-1)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[4-{1,1,3,3-tetramethylbutyl}phenyl]-.omega.-hydroxy- (9002-93-1)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
<tr>
<td>Glycine, N-glycyl- (556-50-3)</td>
<td>Listed on the United States TSCA (Toxic Substances Control Act) inventory</td>
</tr>
</tbody>
</table>
# Read Buffer and Free Tag

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## 15.2. US State Regulations

<table>
<thead>
<tr>
<th>Compound</th>
<th>Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylamine (102-69-2)</td>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td></td>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td></td>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
</tr>
</tbody>
</table>

## 15.3. Canadian Regulations

**Read Buffer and Free Tag**

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>Tripropylamine (102-69-2)</th>
<th>1,3-Propanediol, 2-amino-2-(hydroxymethyl)-, hydrochloride (1185-53-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class B Division 3 - Combustible Liquid</td>
<td>Listed on the Canadian NDSL (Non-Domestic Substances List)</td>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
<tr>
<td>Class D Division 2 Subdivision B - Toxic material causing other toxic effects</td>
<td>Listed on the Canadian IDL (Ingredient Disclosure List)</td>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
<tr>
<td>Class E - Corrosive Material</td>
<td>IDL Concentration 1 %</td>
<td>WHMIS Classification Uncontrolled product according to WHMIS classification criteria</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>Poly(oxy-1,2-ethanediyl), .alpha.-[4-{1,1,3,3-tetramethylbutyl}phenyl]-.omega.-hydroxy- (9002-93-1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class D Division 2 Subdivision B - Toxic material causing other toxic effects</td>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
<tr>
<td>Listed on the Canadian IDL (Ingredient Disclosure List)</td>
<td>IDL Concentration 1 %</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>Glycine, N-glycyl- (556-50-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncontrolled product according to WHMIS classification criteria</td>
<td>Listed on the Canadian DSL (Domestic Substances List)</td>
</tr>
</tbody>
</table>

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

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

**Revision Date** : 12Jan2016  
**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**GHS Full Text Phrases:**

<table>
<thead>
<tr>
<th>Acute Tox. 3 (Dermal)</th>
<th>Acute toxicity (dermal) Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 3 (Oral)</td>
<td>Acute toxicity (oral) Category 3</td>
</tr>
<tr>
<td>Acute Tox. 4 (Inhalation;dust,mist)</td>
<td>Acute toxicity (inhalation;dust,mist) Category 4</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral) Category 4</td>
</tr>
<tr>
<td>Aquatic Acute 2</td>
<td>Hazardous to the aquatic environment - Acute Hazard Category 2</td>
</tr>
<tr>
<td>Aquatic Acute 3</td>
<td>Hazardous to the aquatic environment - Acute Hazard Category 3</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>Hazardous to the aquatic environment - Chronic Hazard Category 2</td>
</tr>
<tr>
<td>Aquatic Chronic 3</td>
<td>Hazardous to the aquatic environment - Chronic Hazard Category 3</td>
</tr>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation Category 1</td>
</tr>
</tbody>
</table>
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| **Eye Irrit. 2A** | Serious eye damage/eye irritation Category 2A |
| **Flam. Liq. 3** | Flammable liquids Category 3 |
| **Skin Corr. 1B** | Skin corrosion/irritation Category 1B |
| **Skin Irrit. 2** | Skin corrosion/irritation Category 2 |
| **STOT SE 3** | Specific target organ toxicity (single exposure) Category 3 |
| **H226** | Flammable liquid and vapor |
| **H301** | Toxic if swallowed |
| **H302** | Harmful if swallowed |
| **H311** | Toxic in contact with skin |
| **H314** | Causes severe skin burns and eye damage |
| **H315** | Causes skin irritation |
| **H318** | Causes serious eye damage |
| **H319** | Causes serious eye irritation |
| **H332** | Harmful if inhaled |
| **H335** | May cause respiratory irritation |
| **H401** | Toxic to aquatic life |
| **H402** | Harmful to aquatic life |
| **H411** | Toxic to aquatic life with long lasting effects |
| **H412** | Harmful to aquatic life with long lasting effects |

**Party Responsible for the Preparation of This Document**
Meso Scale Diagnostics T 240-314-2600

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

NA GHS SDS