Material Safety Data Sheet
Precast Gel Cassettes for the Pippin Prep
DNA Size Standard with TAMRA Fluorescent dye

Version: 4
Creation Date: 5/15/12
Revision Date: 3/21/17

Section 1. Product and Company Information

Product Description:
1. PippinPrep™ Precast Agarose Gels with Buffer Solution and DNA marker.
2. DNA fragments labeled with TAMRA fluorescent dye.

Product Numbers: CDF2010, CEF201, CDF1510, CDP3010.

Unit Size: Precast agarose gels cassettes (10/bx) contain (enclosed in styrene plastic):
~ 10ml agarose gel and ~10 ml Tris-TAPS buffer solution
DNA fragments (labeled with TAMRA) with Ficoll in water – 1 tube:
<200ug DNA in 400- 600 ul of buffer
Additional Tris-TAPS Electrophoresis buffer- 1 bottle::
~30 ml

Company: Sage Science, Inc.
Suite 3150, 500 Cummings Center
Beverly, MA 01915
USA

Telephone: 888.744.2244
Fax: 617.812.0540
Emergency Phone: 978.922.1832

Section 2. Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Chemical Name</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>70281-37-7</td>
<td>232-731-8</td>
<td>TAMRA (tetramethylrhodamine)</td>
<td>0.25ng -1.0 ng/ul</td>
</tr>
<tr>
<td>9012-36-6</td>
<td>201-064-4</td>
<td>Agarose</td>
<td>0.5-3% wt/vol</td>
</tr>
<tr>
<td>77-86-1</td>
<td>249-954-1</td>
<td>Tris (hydroxymethyl)aminomethane</td>
<td>&lt;5% wt %</td>
</tr>
<tr>
<td>29915-38-6</td>
<td>205-358-3</td>
<td>3-(Tris(hydroxymethyl)methylamino)propane-1-sulphonic acid</td>
<td>&lt;5% wt %</td>
</tr>
<tr>
<td>6381-92-6</td>
<td>205-358-3</td>
<td>Ethylenediaminetetraacetic acid disodium dihydrate</td>
<td>&lt;1% wt %</td>
</tr>
<tr>
<td>9007-49-2</td>
<td></td>
<td>Deoxyribonucleic acid (DNA)*</td>
<td>&lt;1 μg</td>
</tr>
<tr>
<td>26873-85-8</td>
<td></td>
<td>Polysucrose (Ficoll)</td>
<td>&lt;30%</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>231-791-2</td>
<td>Water</td>
<td>&gt;90% wt %</td>
</tr>
</tbody>
</table>

* DNA markers are manufactured with either synthetic oligonucleotides or phage (lambda) or bacterial (e.coli) DNA that has been digested with restriction enzymes. Animal or plant DNA are not used.
Section 3. Hazards Identification

Emergency Overview

Appearance: Gels, uncolored translucent. Marker and buffer uncolored, clear.

Target Organs: No data found.

OSHA Hazards

<table>
<thead>
<tr>
<th>HMIS Classification</th>
<th>NFPA Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard:</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability:</td>
<td>N/A</td>
</tr>
<tr>
<td>Physical hazards:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Hazard:</th>
<th>Health Hazard:</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Fire:</td>
<td>N/A</td>
</tr>
<tr>
<td>Reactivity Hazard:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Potential Health Effects (Labeled DNA marker)

| Inhalation:      | N/A          |
| Skin:            | N/A          |
| Eyes:            | N/A          |
| Ingestion:       | N/A          |

Section 4. First Aid Measures

| General Advice: | N/A          |
| Inhalation:     | N/A          |
| Skin:           | N/A          |
| Eyes:           | N/A          |
| Ingestion:      | N/A          |

Section 5. Fire-Fighting Measures

Flammable Properties

| Flash Point:     | No data available |
| Ignition Temperature: | No data available |
Section 6. Accidental Release Measures

N/A

Section 7. Handling and Storage

Handling
Avoid contact with eyes, skin, and clothing. Avoid ingestion.

Storage
Store liquids at 4°C, cassettes at room temperature.

Section 8. Exposure Controls/Personal Protection

Contains no substance with occupational exposure limit values. Facilities using this substance should be equipped with an eye-wash station.

Personal protective equipment

Respiratory protection: Respiratory protection is not required.
Hand protection: Handle with gloves.
Eye protection: Use safety glasses with side-shield conforming to OSHA 29 CFR 1910.133 and European Standard EN-166
Clothing: Wear appropriate clothing to prevent skin exposure.

Section 9. Physical and Chemical Properties

Physical State: Liquid and Solid
Appearance: Clear
Odor: None
pH: No data available
Melting point: No data available
Boiling point: No data available
Flash point: No data available
Ignition temperature: No data available
Lower explosion limit: No data available
Upper explosion limit: No data available
Section 10. Stability and Reactivity

Storage Stability
Stable under recommended storage conditions.

Materials to avoid
Strong oxidizing agents.

Hazardous decompositions products
Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.

Section 11. Toxicological Information

Toxicity: No information found
Epidemiology: No information found
Teratogenicity: No information found
Reproductive Effects: No information found
Mutagenicity: No information found
Neurotoxicity: No information found

Section 12. Ecological Information

No information available.

Section 13. Disposal Considerations

Product
Observe all federal, stated, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Confer with laboratory safety officer. When used in cassettes, dispose of as agarose waste, ethidium homodimer concentration is negligible.

Contaminated packaging
Dispose of as unused product.

Section 14. Transport Information

DOT (US)
Not dangerous goods.

IMDG
Not dangerous goods.

IATA
Not dangerous goods.
Section 15. Regulatory Information

US Federal

OSHA
Irritant. Not considered highly hazardous.

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

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that are reportable under SARA Title III, Section 313.

US State

Materials are not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65
California No Significant Risk Level: None of the chemicals in this product are listed.

TSCA
This product does not contain components listed on the TSCA inventory.

Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.

CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.

Clean Air Act
This material does not contain any hazardous air pollutants or Ozone depleters.

Clean Water Act
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

Canada

DSL Status
This product does not contain components that are on the Canadian DSL or NDSL lists.

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols:

Risk Phrases
R 68 Possible risk of irreversible effects.

Safety Phrases
S 24/25 Avoid contact with skin and eyes.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 28A After contact with skin, wash immediately with plenty of water.

Section 16. Other Information

This information in this document is believed to be correct and current at the date of its authorship or revision. The information does not imply guarantee or warranty but should be used as a guide only. Users of this product should conduct their own investigations into safety precautions and local disposal requirements. Sage Science Inc., shall not be held liable for and damage from handling on contact with the product.