SECTION 1: Identification of the substance/preparation and of the Company/undertaking

Product identifier

Product Name ThinPrep® CytoLyt Solution

Safety data sheet number 85092-001

Recommended use of the chemical and restrictions on use

Specific use(s) A methanol based, buffered preservative solution used to support cells during transport

Recommended Use In vitro diagnostic

Details of the supplier of the safety data sheet

Manufacturer Hologic Inc.
250 Campus Drive
Marlborough, MA 01752
United States
1-508-263-2900

24 Hour Emergency Phone Number Chemtrec, U.S. and Canada 1-800-424-9300; International +1-703-741-5970

For further information, please contact: sds@hologic.com

SECTION 2: Hazards identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Dermal</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 1</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Emergency Overview

Label elements

Signal word
Danger
ThinPrep® CytoLyt Solution

Hazard statements
H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H332 - Harmful if inhaled
H370 - Causes damage to organs
H225 - Highly flammable liquid and vapor

Precautionary Statements - Prevention
P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P264 - Wash face, hands and any exposed skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P243 - Take precautionary measures against static discharge
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Response
P307 + P311 - IF exposed: Call a POISON CENTER or doctor/physician
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P363 - Wash contaminated clothing before reuse
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P330 - Rinse mouth
Fire
In case of fire: Use CO2, dry chemical, or foam for extinction.

Precautionary Statements - Storage
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)
Not Applicable

Other Information
Not Applicable

SECTION 3: Composition/information on ingredients

Substances
Not Applicable

Mixtures
Mixtures

OSHA Hazard Classification
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

<table>
<thead>
<tr>
<th>Component name</th>
<th>CAS No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>14 - 25</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

First aid measures

General advice
Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
**ThinPrep® CytoLyt Solution**

**Eye contact**
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately.

**Skin Contact**
Wash off immediately with plenty of water.

**Inhalation**
Immediate medical attention is required. Remove to fresh air. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

**Ingestion**
Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water. Rinse mouth.

**Self-protection of the first aider**
Remove all sources of ignition.

**Indication of any immediate medical attention and special treatment needed**
Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Keep victim warm and quiet. Treat for CNS depression and possible renal failure. Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Ethanol and fomepizole are effective antidotes for methanol poisoning, although fomepizole is preferred.

### SECTION 5: Firefighting measures

**Flammability**
Flammable liquid and vapor.

**Suitable Extinguishing Media**
Dry chemical, CO2, water spray or alcohol-resistant foam. Water spray, fog or alcohol-resistant foam. Move containers from fire area if you can do it without risk. Dike fire control water for later disposal; do not scatter the material. Use water spray or fog; do not use straight streams.

**Unsuitable Extinguishing Media**
CAUTION: All these products have a very low flash point. Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**
Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapor explosion hazard indoors, outdoors or in sewers. Those substances designated with a "P" may polymerize explosively when heated or involved in a fire. Runoff to sewer may create fire or explosion hazard. Flammable.

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### SECTION 6: Accidental release measures

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

**Personal precautions**
Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required.

**Other Information**
Water spray may reduce vapor; but may not prevent ignition in closed spaces.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up**

**Methods for containment**
Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up**
Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Soak up with inert absorbent material.
**SECTION 7: Handling and storage**

**Precautions for safe handling**
Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep container tightly closed. Ensure adequate ventilation, especially in confined areas.

**Advice on safe handling**
Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.

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

**Storage**
Store in accordance with local regulations. Use appropriate containment to avoid environmental contamination.

**Storage Conditions**
Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

**Incompatible materials.**

---

**SECTION 8: Exposure Controls/Personal Protection.**

**Exposure Guidelines**

**United States of America**

<table>
<thead>
<tr>
<th>Component name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
</table>
| Methanol 67-56-1 | STEL: 250 ppm  
TWA: 200 ppm  
S* | TWA: 200 ppm  
TWA: 260 mg/m³  
(vacated) TWA: 200 ppm  
(vacated) STEL: 250 ppm  
(vacated) STEL: 325 mg/m³  
(vacated) S* | IDLH: 6000 ppm  
TWA: 200 ppm  
TWA: 260 mg/m³  
STEL: 250 ppm  
STEL: 325 mg/m³  |

**Canada**

<table>
<thead>
<tr>
<th>Component name</th>
<th>British Columbia OEL</th>
<th>Quebec OEL</th>
<th>Ontario TWA</th>
</tr>
</thead>
</table>
| Methanol 67-56-1 | TWA: 200 ppm  
STEL: 250 ppm  
Skin | TWA: 200 ppm  
TWA: 262 mg/m³  
STEL: 250 ppm  
STEL: 328 mg/m³  
Skin | TWA: 200 ppm  
STEL: 250 ppm  
Skin |

**Mexico**

<table>
<thead>
<tr>
<th>Component name</th>
<th>Carcinogenicity</th>
<th>Exposure Limits</th>
</tr>
</thead>
</table>
| Methanol 67-56-1 (14 - 25) | - | Mexico: TWA 200 ppm  
Mexico: TWA 260 mg/m³  
Mexico: STEL 250 ppm  
Mexico: STEL 310 mg/m³ |

**NIOSH IDLH Immediately Dangerous to Life or Health**

**Other Information**
Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Appropriate engineering controls**

**Engineering Controls**
Provide adequate ventilation. Showers. Eyewash stations.

**Individual protection measures, such as personal protective equipment**

| Eye/face protection | Tight sealing safety goggles. |
| Skin and body protection | Wear suitable protective clothing. |
| Hand Protection | Wear protective gloves. |
| Respiratory protection | Not Applicable |
General Hygiene Considerations
Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

Other Information

Environmental exposure controls
No information available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Colorless, Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>Alcohol-like</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>7</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>64 °C / 147 °F</td>
</tr>
<tr>
<td>Flash point</td>
<td>43 °C / 109 °F</td>
</tr>
<tr>
<td>Method</td>
<td>CC (closed cup)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limits</td>
<td>36%</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>6.7%</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>127 mmHg</td>
</tr>
<tr>
<td>Vapor density</td>
<td>1.1 (Air=1)</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.97</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Miscible</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Miscible</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>385 °C / 725 °F</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>&gt;99%</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

Reactivity
None under normal use conditions.

Stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal use conditions.

Hazardous polymerization
None under normal use conditions.

Conditions to avoid
Heat, flames and sparks. Avoid temperatures exceeding the flash point. Incompatible materials.

Incompatible materials

Hazardous Decomposition Products
None under normal use conditions.

Materials to avoid
None under normal use conditions.

SECTION 11: Toxicological information
Information on likely routes of exposure

Product Information May be harmful by inhalation, ingestion, or skin absorption.
Inhalation None under normal use conditions.
Eye contact Risk of serious damage to eyes.
Skin Contact None under normal use conditions.
Ingestion None under normal use conditions.

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.
Serious eye damage/eye irritation No information available.
Irritation May cause skin and eye irritation.
Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity No information available.
Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Target Organ Effects Central nervous system, Eyes, Gastrointestinal tract (GI), Respiratory system, Skin.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document. mg/kg mg/l

SECTION 12: Ecological information

Ecotoxicity
20 - 50% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

<table>
<thead>
<tr>
<th>Component name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride 7647-14-5</td>
<td></td>
<td>12946: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>1000: 48 h Daphnia magna mg/L EC50 340.7 - 469.2: 48 h Daphnia magna mg/L EC50 Static</td>
<td></td>
</tr>
<tr>
<td>Potassium Chloride 7447-40-7</td>
<td>2500: 72 h Desmodesmus subspicatus mg/L EC50</td>
<td>1060: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>825: 48 h Daphnia magna mg/L EC50 83: 48 h Daphnia magna mg/L EC50 Static</td>
<td></td>
</tr>
</tbody>
</table>

Persistence and degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

<table>
<thead>
<tr>
<th>Component name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>-0.77</td>
</tr>
</tbody>
</table>

Other adverse effects No information available.

SECTION 13: Disposal Considerations.

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.
**ThinPrep® CytoLyt Solution**

**Waste from Residues / Unused Products**  Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**  Disposal should be in accordance with applicable regional, national and local laws and regulations.

**US EPA Waste Number**  U154 D001

<table>
<thead>
<tr>
<th>Component name</th>
<th>RCRA</th>
<th>RCRA - Basis for Listing</th>
<th>RCRA - D Series Wastes</th>
<th>RCRA - U Series Wastes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol 67-56-1</td>
<td></td>
<td>Included in waste stream: F039</td>
<td></td>
<td>U154</td>
</tr>
</tbody>
</table>

This product contains one or more substances that are listed with the State of California as a hazardous waste.

<table>
<thead>
<tr>
<th>Component name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol 67-56-1</td>
<td>Toxic Ignitable</td>
</tr>
</tbody>
</table>

**SECTION 14: Transport information**

**DOT**

<table>
<thead>
<tr>
<th>UN/ID No</th>
<th>Proper shipping name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>Reportable Quantity (RQ)</th>
<th>Emergency Response Guide Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1993</td>
<td>Flammable liquids, n.o.s. (Methanol)</td>
<td>3</td>
<td>III</td>
<td>Methanol: RQ kg = 10809.52</td>
<td>128</td>
</tr>
</tbody>
</table>

**TDG**

<table>
<thead>
<tr>
<th>UN/ID No</th>
<th>Proper shipping name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>Marine pollutant</th>
<th>Emergency Response Guide Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1993</td>
<td>Flammable liquids, n.o.s. (Methanol)</td>
<td>3</td>
<td>III</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

**IATA**

<table>
<thead>
<tr>
<th>UN/ID No</th>
<th>Proper shipping name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>ERG Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1993</td>
<td>Flammable liquids, n.o.s. (Methanol)</td>
<td>3</td>
<td>III</td>
<td>3L</td>
</tr>
</tbody>
</table>

**IMDG**

<table>
<thead>
<tr>
<th>UN/ID No</th>
<th>Proper shipping name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>EmS-No</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN1993</td>
<td>Flammable liquids, n.o.s. (Methanol)</td>
<td>3</td>
<td>III</td>
<td>F-E, S-E</td>
</tr>
</tbody>
</table>

**SECTION 15: Regulatory information**

**International Inventories**

<table>
<thead>
<tr>
<th>Component name</th>
<th>TSCA</th>
<th>EINECS/ELINCS</th>
<th>DSL/NDSL</th>
<th>PICCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water 7732-18-5</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Methanol 67-56-1</td>
<td>Present</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
**ThinPrep® CytoLyt Solution**

<table>
<thead>
<tr>
<th>Component name</th>
<th>CAS No</th>
<th>Present</th>
<th>X</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium Acetate 142-72-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride 7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium Chloride 7447-40-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**US Federal Regulations**

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

<table>
<thead>
<tr>
<th>Component name</th>
<th>CAS No</th>
<th>%</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol - 67-56-1</td>
<td>67-56-1</td>
<td>14 - 25</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazard Categories**
- **Acute health hazard** Yes
- **Chronic Health Hazard** No
- **Fire hazard** Yes
- **Sudden release of pressure hazard** No
- **Reactive Hazard** No

**CWA (Clean Water Act)**
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

<table>
<thead>
<tr>
<th>Component name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol 67-56-1</td>
<td>5000 lb</td>
<td>RQ 5000 lb final RQ</td>
<td>RQ 2270 kg final RQ</td>
</tr>
</tbody>
</table>

**US State Regulations**

**California Proposition 65**
This product contains the following Proposition 65 chemicals.

<table>
<thead>
<tr>
<th>Component name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol 67-56-1</td>
<td>Developmental</td>
</tr>
</tbody>
</table>

**U.S. State Right-to-Know Regulations**
This product may contain substances regulated by state right-to-know regulations.

<table>
<thead>
<tr>
<th>Component name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol 67-56-1</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
**ThinPrep® CytoLyt Solution**

**U.S. EPA Label Information**  
**EPA Pesticide Registration Number** Not Applicable

**International Regulations**  
Mexico - Grade Moderate risk, Grade 2

<table>
<thead>
<tr>
<th>Component name</th>
<th>Carcinogenicity</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>-</td>
<td>Mexico: TWA 200 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: TWA 260 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: STEL 250 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: STEL 310 mg/m³</td>
</tr>
</tbody>
</table>

**SECTION 16: Other information**

**Revision Date** 20-May-2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

**End of Safety Data Sheet**