1. IDENTIFICATION OF THE SUBSTANCE/PREPARATIONS AND OF THE COMPANY UNDERTAKING

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Paraplast Xtra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Description</td>
<td>Tissue embedding medium / 8-10 bags per case (1kg/bag)</td>
</tr>
<tr>
<td>Product Numbers</td>
<td>39603002</td>
</tr>
<tr>
<td>Manufacturer/Supplier</td>
<td>Leica Biosystems St. Louis, LLC</td>
</tr>
<tr>
<td>Address</td>
<td>5918 Evergreen</td>
</tr>
<tr>
<td></td>
<td>St. Louis, MO 63134</td>
</tr>
<tr>
<td>Phone Number</td>
<td>(314) 522-8671</td>
</tr>
<tr>
<td>Emergency Phone Number</td>
<td>(314) 522-8671</td>
</tr>
<tr>
<td>Revision Date:</td>
<td>October 1, 2008</td>
</tr>
<tr>
<td>MSDS Date:</td>
<td>February 14, 2006</td>
</tr>
</tbody>
</table>

Safety Data Sheet according to EC directive 2001/59/EC and OSHA’s Hazcom Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

EU Main Hazards
Not classified as hazardous.

Routes of Entry
- Eye contact - Skin contact

Carcinogenic Status
Not considered carcinogenic by NTP, IARC, and OSHA.

Target Organs
- Eye - Skin

Health Effects - Eyes
Contact may cause slight transient irritation.

Health Effects - Skin
Material may cause irritation.

Health Effects - Ingestion
A large dose may have the following effects:
- nausea - vomiting - diarrhea - abdominal pain - intestinal obstruction - liver damage - brain damage

Health Effects - Inhalation
No adverse effects are expected during normal conditions of use. Inhalation of paraffin wax fumes during heating may irritate the eyes, nose and throat.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS#/Codes</th>
<th>Concentration</th>
<th>R Phrases</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraffin</td>
<td>8002-74-2</td>
<td>&gt; 75.00%</td>
<td>R-None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>232-315-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resin</td>
<td>proprietary</td>
<td>&lt; 25.00%</td>
<td>R-None</td>
<td>None</td>
</tr>
<tr>
<td>Butylated hydroxytoluene</td>
<td>128-37-0</td>
<td>~1.00%</td>
<td>R-None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>204-881-4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

**Eyes**
Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

**Skin**
If skin irritation develops, or other symptoms occur, discontinue use. Seek medical attention if symptoms persist.

**Ingestion**
Do not induce vomiting. Have victim drink 1-3 glasses of water to dilute stomach contents. Never administer anything by mouth if a victim is losing consciousness, is unconscious or is convulsing. Obtain medical attention immediately.

**Inhalation**
If there is difficulty in breathing, give oxygen. Seek medical attention if symptoms persist.

**Advice to Physicians**
Treat symptomatically.

5. FIRE FIGHTING MEASURES

**Extinguishing Media**
Not Flammable. Select extinguishing agent appropriate to other materials involved.

**Unusual Fire and Explosion Hazards**
This product may give rise to hazardous fumes in a fire.

**Protective Equipment for Fire-Fighting**
Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

This product may be collected by carefully scooping into a pan, paper towel or other absorbent material. If wax is hot, let cool before initiating clean up. To clean-up spills of cooled wax, use nonsparking tools to scrape the wax into suitable containers for disposal. Wear appropriate protective clothing.

7. HANDLING AND STORAGE

Keep container tightly closed when not in use. Storage area should be: - cool - dry - well ventilated - away from incompatible materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational Exposure Standards**
Exposure limits are listed below, if they exist.

**Paraffin wax fume**
ACGIH: TLV 2mg/m³ 8h TWA
UK EH40: OEL 2mg/m³ TWA.
UK EH40: OEL 6mg/m³ STEL.

**Resin**
None assigned.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Butylated hydroxytoluene
ACGIH TLV: 2 mg/m³ (8hr TWA) measured as inhalable fraction and vapor.
UK EH40: OEL 10 mg/m³ TWA.

Engineering Control Measures
No specific measures necessary. Good general room ventilation is expected to be adequate to control airborne levels. Heating of this product may generate vapors or fumes, therefore, local exhaust ventilation is recommended to keep airborne concentrations below exposure limits.

Respiratory Protection
Respiratory protection if there is risk of breathing mists or vapors from heated material. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Hand Protection
Chemical resistant gloves

Eye Protection
Chemical goggles or safety glasses with side shields

Body Protection
Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid Pellets</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless - White - Translucent</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH</td>
<td>No data.</td>
</tr>
<tr>
<td>Boiling Range/Point (°C/F)</td>
<td>No data.</td>
</tr>
<tr>
<td>Melting Point (°C/F)</td>
<td>47-65 / 117-149 (depending on grade)</td>
</tr>
<tr>
<td>Flash Point (PMCC) (°C/F)</td>
<td>204 / 400</td>
</tr>
<tr>
<td>Auto-flammability (deg C)</td>
<td>245 (for 100% paraffin)</td>
</tr>
<tr>
<td>Explosion Limits (%)</td>
<td>No data.</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data.</td>
</tr>
<tr>
<td>Density</td>
<td>No data.</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>No data.</td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
<td>No data.</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability
Stable under normal conditions.

Conditions to Avoid
- Heat - High temperatures

Materials to Avoid
- Reducing agents - Strong acids
10. STABILITY AND REACTIVITY

Hazardous Polymerization
Will not occur.

Hazardous Decomposition Products
- acrid smoke and irritating fumes
- oxides of carbon

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Low order of acute toxicity predicted.
Paraffin: A 100 mg dose applied to the rabbit eye for 24 hours caused mild irritation. A 500 mg dose applied to the rabbit skin for 24 hours caused mild irritation.
Resin: Oral LD50 (mammal) 7000mg/kg.
Butylated Hydroxytoluene: Oral LD50 (rat) 890 mg/kg.

Chronic Toxicity/Carcinogenicity
Paraffin: When implanted in rats (120 mg/kg) and mice (480-660 mg/kg), caused tumors of the bladder, lungs and thorax.
Butylated Hydroxytoluene: IARC assessment: this product is not classifiable as to its carcinogenicity to humans (Group 3).

Genotoxicity
This product is not expected to cause any mutagenic effects.

Reproductive/Developmental Toxicity
This product is not expected to cause reproductive or developmental health effects.

12. ECOLOGICAL INFORMATION

Mobility
No relevant studies identified.

Persistence/Degradability
No relevant studies identified.

Bio-accumulation
No relevant studies identified.

Ecotoxicity
No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable local and national regulations.

14. TRANSPORT INFORMATION

DOT CFR 172.101 Data
Not Regulated

UN Proper Shipping Name
Not Regulated

UN Class
None.

UN Number
None.

UN Packaging Group
None.

Classification for AIR
Consult current IATA Regulations prior to shipping by air.

Transportation (IATA)
## REGULATORY INFORMATION

### EU Label Information
Classification and labelling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments (2001/60/EC and 2006/8/EC).

### EU Hazard Symbol and Indication of Danger

### R phrases
None.

### S phrases
None.

### US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS

**TSCA Listing**
All ingredients have been verified for inclusion on the EPA Toxic Substance Control Act Chemical Substance Inventory.

**EINECS Listing**
All ingredients in this product are listed on the European Inventory of Existing Commercial Chemical Substances (EINECS) or are exempt from listing.

**DSL (Canadian) Listing**
All ingredients in this product are listed on the Domestic Substance List (DSL).

**MA Right To Know Law**
All components have been checked for inclusion on the Massachusetts Substance List (MSL). Those components present at or above the de minimis concentration include: Paraffin - Butylated Hydroxytoluene

**PA Right To Know Law**
This product contains the following chemicals found on the Pennsylvania Hazardous Substance List: - Paraffin - Butylated Hydroxytoluene

**NJ Right To Know Law**
This product does not contain any chemicals on the New Jersey Workplace Hazardous Substance List. - Butylated Hydroxytoluene

**California Proposition 65**
This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

**SARA Title III Sect. 302 (EHS)**
This product does not contain any chemicals subject to SARA Title III Section 302.

**SARA Title III Sect. 304**
This product does not contain any chemicals subject to SARA Title III Section 304.

**SARA Title III Sect. 311/312 Categorization**
Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard

**SARA Title III Sect. 313**
This product does not contain a chemical that is listed in Section 313 at or above de minimis concentrations.
16. OTHER INFORMATION

NFPA Ratings
NFPA Code for Flammability - 1
NFPA Code for Health - 1
NFPA Code for Reactivity - 0
NFPA Code for Special Hazards - None

HMIS Ratings
HMIS Code for Flammability - 1
HMIS Code for Health - 1
HMIS Code for Reactivity - 0
HMIS Code for Personal Protection - See Section 8

Abbreviations
N/A: Denotes no applicable information found or available
CAS#: Chemical Abstracts Service Number
ACGIH: American Conference of Governmental Industrial Hygienists
OSHA: Occupational Safety and Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
NTP: National Toxicology Program
IARC: International Agency for Research on Cancer
R: Risk
S: Safety
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%
BOD: Biological Oxygen Demand
KoC: Soil Organic Carbon Partition Coefficient

Prepared By: EnviroNet LLC.

The information and recommendations presented in this SDS are based on sources believed to be accurate; therefore, Leica Biosystems St. Louis, LLC assumes no liability for the accuracy or completeness of this information. It is the user’s responsibility to determine the suitability of the information for their particular purposes.