

For routine clinical histology, cytology, biomedical research, and industrial applications, Leica Microsystems offers a full complement of products to provide excellent results for a wide range of specimen preparation needs.

Slide and Cassette Printing – Legible ink jet printing of bar codes or standard text

Tissue Processing – Innovative “smart” automation

Embedding – Modular, comfortable tissue embedding

Sectioning – Rotary, sledge, and sliding microtomes for routine and research applications

Cryosectioning – The industry standard cryostats for frozen sectioning with optional disinfection

Slide Staining – High-throughput routine staining

Coverslipping – Flexible, automated glass coverslipping

Stainer/Coverslipper Workstations – The ultimate in convenience and performance

Consumables – To enhance and support most routine and research applications

HistowaxTM LT

Material Safety Data Sheet

Designed with **You** in Mind!

Leica
MICROSYSTEMS

Product Name: Histowax™ LT
Use/Size: Tissue embedding medium
 10 bags per case (1kg/bag)
Product Number: 8082881
Manufacturer/Supplier: Leica Microsystems, Inc.
Address: 2345 Waukegan Road
 Bannockburn, IL 60015
Phone Number: (800) 248-0123
Emergency Phone Number: (800) 248-0123, ext. 7206
Revision Date: August 5, 2006
MSDS Date: August 5, 2006

This MSDS has been compiled in accordance with -EC Directive 91/155/EC- OSHA's Hazcom Standard (29 CFR 1910.1200)

COMPOSITION/INFORMATION ON THE COMPONENTS

Component Name:	Paraffin	Resin	Butylated Hydroxytoluene
CAS#/Codes:	8002-74-2 232-315-6	Proprietary	128-37-0 204-881-4
Concentration:	> 75.00%	> 25.00%	~1.00%
R Phrases:	R-None	R-None	R-None
Classification:	None	None	None

HAZARD 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.
Skin: Material may cause irritation.
Ingestion: A large dose may have the following effects: nausea, vomiting, diarrhea, abdominal pain, intestinal obstruction, liver damage, brain damage.
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.

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.

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.

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.

HANDLING AND STORAGE

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

EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards:

Exposure limits are listed below, if they exist.

Paraffin:

ACGIH: TLV 2mg/m3 (8h TWA) (fume)
 UK EH40: OES 2mg/m3 (8h TWA)
 UK EH40: OES 6mg/m3 (10min TWA)

Resin:

None assigned.

Butylated Hydroxytoluene:

ACGIH TLV: 2 mg/m3 (8hr TWA)
 OSHA PEL: 10mg/m3 (8hr TWA) inhalable fraction

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.

Use Respiratory Protection:

Use 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:

Wear chemical-resistant gloves.

Eye Protection:

Wear chemical goggles or safety glasses with side shields.

Body Protection:

Wear normal work apparel.

PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid Pellets
Color:	Colorless/White/Translucent
Odor:	Odorless
pH:	No data
Boiling Range/Point (°C/F):	No data
Melting Point (°C/F):	47-65° / 117-149° (depending on grade)
Flash Point (PMCC) (°C/F):	204° / 400°
Auto-flammability (°C/F):	245° / 473° (for 100% paraffin)
Explosion Limits (%)(°C/F):	No data
Vapor Pressure:	No data
Density:	No data
Solubility in Water:	Insoluble
Vapor Density (Air = 1):	No data
Viscosity (cSt):	No data

STABILITY AND REACTIVITY

Stability:

Stable under normal conditions.

Conditions to Avoid:

Heat, high temperatures.

Materials to Avoid:

Reducing agents, strong acids.

Hazardous Polymerization:

Will not occur.

Hazardous Decomposition Products:

Acrid smoke and irritating fumes, oxides of carbon.

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) 700mg/kg.

Butylated Hydroxytoluene: Oral LD50 (rat) 800mg/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.

ECOLOGICAL INFORMATION

Mobility:

No relevant studies identified.

Persistence/Degradability:

No relevant studies identified.

Bio-accumulation:

No relevant studies identified.

Ecotoxicity:

No relevant studies identified.

DISPOSAL

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

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.
Transportation (IATA):	Regulations prior to shipping by air.

REGULATORY INFORMATION

EU Label Information

Classification and labeling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments.

EU Hazard Symbol and Indication of Danger:

According to EC Commission Directive 67/548/EEC this product is not classified.

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 minimus concentration include: Paraffin and Butylated Hydroxytoluene.

PA Right To Know Law

This product contains the following chemicals found on the Pennsylvania Hazardous Substance List: Paraffin and Butylated Hydroxytoluene.

NJ Right To Know Law

This product contains the following chemical 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.

Prepared by: EnviroNet LLC

The information and recommendations presented in this MSDS are based on sources believed to be accurate; therefore, Leica Microsystems 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 particular purposes.

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 **Exposure Controls/Personal Protection**

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

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