MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

1.1 Product Identifier

Product name:	Histology Wax Polymer (PHC 9009)
REACH registered name:	-
REACH registered No:	See section 3
CAS number:	See section 3
EC number:	See section 3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Intended uses:	Tissue Embedding
Uses advised against:	No information available

1.3 Details of the supplier of the safety data sheet

Name:	Poth Hille & Co. Ltd
Address:	18 Easter Ind. Park, Ferry Lane South, Rainham, Essex, RM13 9BP
Phone Number:	+44 1708 526828 (Monday - Friday 08.00-17.00)
Fax Number:	+44 1708 525695
Email:	info@ poth-hille.co.uk

1.4 Emergency Telephone Number

+44 1708 526828 (Monday - Friday 08.00-17.00)

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance of Mixture:

Does not contain any components which are hazardous according to CLP Regulation 1272/2008/EC

2.2 Label Elements:

Does not require a hazard warning label in accordance with CLP Regulation 1272/2008/EC.

2.3 Other Hazards:

PBT: This product is not identified as a PBT/ vPvB Substance according to REACH Annex XIII.
Hot liquid may cause thermal burns.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance Name	CAS-No	EC Number	REACH Reg No
Paraffin waxes and hydrocarbon waxes	8002-74-2	232-315-6	01-2119488076-30
Polyisobutylene	9003-27-4	618-360-8	-

3.2 Mixtures

Not applicable. There are no additional components present which, to the knowledge of the supplier, are classified or contribute to the classification of the substance according to 1272/2008/EC.

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General information: Remove contaminated/saturated clothing. In case of accident or illness seek medical advice immediately.

Inhalation: Remove the affected person to fresh air, keep warm and rest. If recovery is not rapid, seek medical advice.

Skin Contact: Wash the affected parts of the body with soap and water. No emergency measures are necessary but if adverse skin effects follow, seek medical advice.

Eye Contact: Flush eyes immediately with fresh water for at least 5 minutes while holding the eyelids open. No emergency measures are necessary but if adverse eye effects follow, seek medical advice.

Ingestion: Do not induce vomiting. No emergency measures are necessary but if adverse health effects follow or large amounts are swallowed, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: High concentration of vapours may induce: Headache, nausea, dizziness. Irritant effect to the respiratory tract.

Skin Contact: May cause slight irritation to the skin. Heated product may cause burns.

Eye Contact: May cause slight irritation to eyes.

Ingestion: May cause nausea.

4.3 Indication of any immediate medical attention and special treatment needed

In contact with or splashed by melted product, quickly cool area with water.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Foam, Dry Chemical Powder, Carbon Dioxide.

Unsuitable extinguishing media: Water.

5.2 Special hazards arising from the substance or mixture

Slight flammability hazard when exposed to heat or flame. During a fire, toxic gases (carbon monoxide, nitrous gases) may be generated by thermal decomposition or combustion.

5.3 Advice for firefighters

Only suitably trained personnel should attempt to tackle fires. Breathing apparatus and protective clothing should be worn. Do not remain in the immediate vicinity without respiratory protective equipment and protective clothing.

6. ACCIDENTAL RELEASE

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Wear suitable protective clothing. See section 8. Stop leak if safe to do so. Remove sources of ignition.

For emergency responders: Wear suitable protective clothing and breathing apparatus. See section 8. Stop leak if safe to do so. Remove sources of ignition

6.2 Environmental precautions

Water may be used to flush spills away from sources of ignition. Prevent spreading by damming. Do not allow the product to enter public drainage system or open water course. Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment:	Stop leak if safe to do so. Use damming system to prevent spreading.
Cleaning up:	Use sand or active clay to absorb spilled substance and remove to containers for disposal. When in liquid state, cool and allow to solidify.

6.4 Reference to other sections

See sections 8 and 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Recommendations:	Handle in accordance with GMP and safety procedures. The molten product can cause severe burns. Use molten product in well ventilated areas. Use personal protective equipment as required.
General advice:	Do not eat or drink in immediate vicinity. Wash hands after use. Remove any contaminated clothing before eating or drinking.

7.2 Conditions for safe storage including any incompatibilities

Keep material sealed, dry and out of direct sunlight. Avoid heat and ignition sources. Store in original containers or other high density polyethylene containers which are sealable and clearly labelled. Clean up spilled material immediately.

7.3 Specific end use(s)

No data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

TWA TLV (ACGIH):	2mg/m^3 (paraffin wax fumes). However in all circumstances exposure should be kept as low as reasonably possible by good ventilation and safe work practices.
DNEL:	No data available
PNEC:	No data available
PEL:	No data available
REL:	No data available

8.2 Exposure Controls

Appropriate engineering measures:	Facilities storing or utilising this material should be equipped with an eyewash facility.
Eye protection:	Wear appropriate eye protection with side shields (EN166).
Skin protection:	Use impervious gloves (EN374). PVC is suitable for casual contact. If direct contact for more than 2 hours then Neoprene or nitrile gloves recommended.
Respiratory protection:	Inhalation of the vapour, fumes or mists should be avoided by safe working practices and good ventilation.
Thermal Hazards:	Thermal hazards only applicable when material is heated. Use appropriate heat resistant gloves.
Environmental Exposure Controls:	See sections 6, 7, 12 and 13.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic chemical and physical properties

Physical State:	Solid
Colour:	White
Odour:	None
Melting point/Congealing point:	54-57°C
Initial boiling point/range:	>300°C
Flammability:	No data available
Explosion Limits:	Does not apply to solids
Flash point:	Does not apply to solids
Auto ignition temperature:	Does not apply to solids
Decomposition temperature:	No data available
pH:	Neutral
Kinematic Viscosity:	Does not apply to solids
Solubility in water:	Insoluble
Partition coefficient n-octanol/water:	No data available
Vapour pressure:	No data available
Relative density (at 15°C):	No data available
Relative vapour density:	No data available
Particle characteristics:	~5-10mm pellet

9.2 Other information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Not reactive under normal storage and handling conditions (see section 7). May react with strong oxidising agents, especially at high temperatures.

10.2 Chemical stability

Stable under normal storage and handling conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions are expected to occur under normal storage and handling conditions.

10.4 Conditions to avoid

Extremes of temperature (preferably, store between 5 and 39°C). The product is combustible when heated >300°C.

10.5 Incompatible materials

May react with strong oxidants (e.g. chlorates, peroxides).

10.6 Hazardous decomposition products

Thermal decomposition or incomplete combustion may produce carbon monoxide, nitrous gases and irritating fumes.

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in regulation (EC) 1272/2008

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

Acute toxicity
Oral: LD50 >5000mg/kg (OECD 401)
Inhalation: No data available
Dermal: LD50 >2000mg/kg (OECD 402)

Skin corrosion/irritation
Not irritant (OECD 404)

Serious eye damage/eye irritation
Not irritant (OECD 405)

Respiratory or skin sensitisation
Non-sensitising (OECD 406)

Germ cell mutagenicity
Negative (OECD 476)

Carcinogenicity
Not classified as carcinogenic – based on available data, the classification criteria are not met.

Reproductive toxicity
NOAEL: >1000mg/kg bw/day

Specific target organ toxicity – single exposure
Not classified as a specific target organ toxicant (single exposure)

Specific target organ toxicity – repeated exposure
Not classified as a specific target organ toxicant (repeated exposure)

Aspiration hazard
Not classified as presenting an aspiration hazard - based on available data, the classification criteria are not met.

11.2 Information on other hazards

No data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity (Pimephales promelas): LD50 >100mg/l (96h) (OECD203/ISO7346/EEC84/449/V, C1)
Aquatic toxicity (Pseudokirchnerella subcapitata): NOAEL 100mg/l (OECD201)
Aquatic toxicity (Daphnia magna): EL50 >10000mg/l (96h) (OECD202)

12.2 Persistence and degradability

Insoluble in water – can be separated from water in suitable effluent treatment plants.

12.3 Bioaccumulation potential

No data available

12.4 Mobility in soil

Non-volatile and absorption into soil solid phase not expected.

12.5 Results of PBT & vPvB assessment

Not identified as a PBT/ vPvB Substance according to REACH Annex XIII.

12.6 Endocrine Disrupting Properties

Not identified as an endocrine disrupting substance

12.7 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Treat in accordance with EU directive 2008/98/EC. Transport to authorised waste location or incinerate under controlled conditions (EU Directives 2000/76/EC and 1999/31/EC apply). Do not dispose to drains or sewage systems.

14. TRANSPORT INFORMATION

14.1 UN number
Not classified

14.2 UN Proper shipping name
Not Classified

14.3 Transport Hazard Class(es)
Not Classified

14.4 Packing Group
Not Classified

14.5 Environmental Hazards
None

14.6 Special Precautions for user
None

14.7 Maritime transport in bulk according to IMO instruments
Not classified

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulations: Regulation [EC] 1272/2008 including amendments
Regulation [EC] 1907/2006 including amendments (EC 2015/830)

15.2 Chemical Safety Assessment
The supplier has not performed a chemical safety assessment of this substance.

16. OTHER INFORMATION

Indication of changes: All sections revised according to Regulation [EC] No 1272/2008 [CLP] in preparation for the 1 June 2015 deadline.

Version number	Date reviewed/revised	Indication of change
V3	26/07/2016	Reach registration number added to composition (sec 3)
V4	19/01/2021	Product name updated
V5	14/10/2022	Updated according to EU 2020/878

Abbreviations & Acronyms:

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS No:	Chemical Abstract Service number
CLP:	Classification Labelling and Packaging Regulation
DNEL:	Derived No Effect Level
EC:	European Commission
EC No:	European Chemical Number – EINECS – ELINCS
ECHA:	European Chemical Agency
EINECS:	European Inventory of Existing Commercial Chemical Substances
ELINCS:	European List of Notified Chemical Substances
ES:	Exposure Scenario
LD50:	Median Lethal Dose
LC50:	Median Lethal Concentration
NOAEL:	No Observed Adverse Effect Level
PEL:	Permissible Exposure Limit
PNEC:	Predicted No Effect Level
REACH:	Registration, Evaluation, Authorisation & restriction of Chemicals
REL:	Recommended Exposure Limit
TLV:	Threshold Limit Value
TWA:	Time Weighted Average

Hazard Statements/Precautionary statements:
None