



# Material Safety Data Sheet

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>Unitma Co., Ltd.</b> 101, 27-12, Bokjeong-ro, 118-gil, Sujeong-gu, Seongnam-si, Gyenggi- do, 13112, Korea	<b>EMERGENCY TELEPHONE NUMBER</b> 82-31-721-8003  <b>FAX NUMBER</b> 82-31-751-8003
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### SUBSTANCE: TISSUE RECIPIENT BLOCK

**TRADE NAMES/SYNONYMS:**

00232315

**PRODUCT USE:** research purpose for tissue microarray

**CREATION DATE:** Dec 08 2006

**REVISION DATE:** Jun 23 2022

## 2. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: NORMAL PARAFFINS C5-20

CAS NUMBER: 64771-72-8

EC NUMBER (EINECS): 265-233-4

PERCENTAGE: 90-99

COMPONENT: CONFIDENTIAL 1

CAS NUMBER: Proprietary

EC NUMBER: Not assigned.

PERCENTAGE: 1-10

## 3. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=1 REACTIVITY=0

**EMERGENCY OVERVIEW:**

PHYSICAL FORM: article

MAJOR HEALTH HAZARDS: This product is considered to be nonhazardous, however the following effects may occur as a result of damage to the product:  
central nervous system depression

**POTENTIAL HEALTH EFFECTS:**

**INHALATION:**

SHORT TERM EXPOSURE: This product is considered to be nonhazardous, however the following effects may occur as a result of damage to the product:  
irritation, cough, headache, drowsiness, dizziness, loss of coordination, lung congestion, coma

LONG TERM EXPOSURE: This product is considered to be nonhazardous, however the following effects may occur as a result of damage to the product:  
lung damage

**SKIN CONTACT:**

SHORT TERM EXPOSURE: This product is considered to be nonhazardous, however the following effects may occur as a result of damage to the product:  
irritation, allergic reactions, skin disorders, headache, drowsiness, dizziness, loss of coordination

LONG TERM EXPOSURE: This product is considered to be nonhazardous, however

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the following effects may occur as a result of damage to the product: irritation, skin disorders, headache, drowsiness, dizziness, loss of coordination

**EYE CONTACT:**

SHORT TERM EXPOSURE: This product is considered to be nonhazardous, however the following effects may occur as a result of damage to the product:  
irritation

LONG TERM EXPOSURE: No hazard expected.

**INGESTION:**

SHORT TERM EXPOSURE: not a likely route of exposure

LONG TERM EXPOSURE: not a likely route of exposure

**CARCINOGEN STATUS:**

OSHA: No

NTP: No

IARC: No

**4. FIRST AID MEASURES**

**INHALATION:** No hazard expected. It is unlikely that emergency treatment will be required if used as directed.

**SKIN CONTACT:** No hazard expected. It is unlikely that emergency treatment will be required if used as directed.

**EYE CONTACT:** No hazard expected. It is unlikely that emergency treatment will be required if used as directed.

**INGESTION:** Not a likely route of exposure. It is unlikely that emergency treatment will be required if used as directed.

**5. FIRE FIGHTING MEASURES**

**FIRE AND EXPLOSION HAZARDS:** Slight fire hazard.

**EXTINGUISHING MEDIA:** carbon dioxide, regular dry chemical, regular foam, water

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**FIRE FIGHTING:** Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

## 6. ACCIDENTAL RELEASE MEASURES

### **OCCUPATIONAL RELEASE:**

Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers.

## 7. HANDLING AND STORAGE

**STORAGE:** Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Keep separated from incompatible substances.

## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

### **EXPOSURE LIMITS:**

#### **NORMAL PARAFFINS C5-20:**

##### **MINERAL OIL MIST:**

5 mg/m<sup>3</sup> OSHA TWA

5 mg/m<sup>3</sup> ACGIH TWA

10 mg/m<sup>3</sup> ACGIH STEL

5 mg/m<sup>3</sup> NIOSH recommended TWA 10 hour(s)

10 mg/m<sup>3</sup> NIOSH recommended STEL

### **MEASUREMENT METHOD:** NIOSH IV # 5026, 5524

**VENTILATION:** Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

**EYE PROTECTION:** Eye protection not required under normal conditions.

**CLOTHING:** Protective clothing is not required under normal conditions.

**GLOVES:** Protective gloves are not required under normal conditions.

**RESPIRATOR:** No respirator is required under normal conditions of use. Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** solid

**PHYSICAL FORM:** article

**ODOR:** Not available

**BOILING POINT:** Not applicable

**MELTING POINT:** Not available

**VAPOR PRESSURE:** Not applicable

**VAPOR DENSITY:** Not applicable

**SPECIFIC GRAVITY:** Not available

**WATER SOLUBILITY:** Not available

**PH:** Not applicable

**VOLATILITY:** Not applicable

**ODOR THRESHOLD:** Not available

**EVAPORATION RATE:** Not applicable

**COEFFICIENT OF WATER/OIL DISTRIBUTION:** Not available

## 10. STABILITY AND REACTIVITY

**REACTIVITY:** Stable at normal temperatures and pressure.

**CONDITIONS TO AVOID:** Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

**INCOMPATIBILITIES:** acids, oxidizing materials

**NORMAL PARAFFINS C5-20:**

OXIDIZERS (STRONG): Fire and explosion hazard.

**CONFIDENTIAL 1:**

ACIDS: Incompatible.

OXIDIZERS (STRONG): Fire and explosion hazard.

**HAZARDOUS DECOMPOSITION:**

Thermal decomposition products: oxides of carbon

**POLYMERIZATION:** Will not polymerize.

## 11. TOXICOLOGICAL INFORMATION

**NORMAL PARAFFINS C5-20:**

**TOXICITY DATA:** >3 g/kg skin-rabbit LD50; >5 g/kg oral-rat LD50

**TARGET ORGANS:** central nervous system

**HEALTH EFFECTS:**

**INHALATION:**

**ACUTE EXPOSURE:**

**NORMAL PARAFFINS C5-20:** Lower hydrocarbons within this carbon range may cause irritation and central nervous system depression with inability to do fine work and loss of consciousness in extreme cases. High concentrations, as found in confined spaces, can induce coma characterized by inhibition of deep tendon reflexes. Direct contact with the lungs may cause chemical pneumonitis with pulmonary edema, hemorrhaging, and tissue necrosis. Mists or sprays of insoluble oils are usually not harmful to the respiratory tract, although worker discomfort may occur at oil mist levels of 5 mg/m<sup>3</sup>.

**CONFIDENTIAL 1:** Excessive concentrations of nuisance dusts in the workroom

may cause unpleasant deposits in the nasal passages, coughing, and sneezing.

**CHRONIC EXPOSURE:**

**NORMAL PARAFFINS C5-20:** Repeated and prolonged contact with oils may cause fibrotic nodules, lipid pneumonia, and lipid granuloma.

**CONFIDENTIAL 1:** No data available.

**SKIN CONTACT:**

**ACUTE EXPOSURE:**

**NORMAL PARAFFINS C5-20:** The lower hydrocarbons within this carbon range may cause irritation ranging from mild to severe. If sufficient amounts are absorbed, central nervous system effects as detailed in acute inhalation may occur. The higher hydrocarbons (>C19) may cause an oil folliculitis that arises as a result of chemical irritation and mechanical plugging of the hair follicles. Onset usually occurs soon after the first exposure and is marked by acute reactions starting on the dorsal surfaces of the hands and fingers, the extensor surfaces of the forearms and thighs, and the abdomen. Comedones, perifollicular papules and pustules (oil boils) may develop. Melanosis may appear later. Clinical manifestations clear rapidly with the termination of exposure and do not resolve if the exposure is continued. Some individuals may develop a skin sensitivity to petroleum products or to additives used in petroleum products.

**CONFIDENTIAL 1:** Excessive concentration of nuisance dusts in the workroom may cause unpleasant deposits on the skin and in the ears. Injury to the skin may occur by chemical or mechanical action or by the rigorous skin cleansing procedures necessary for their removal.

**CHRONIC EXPOSURE:**

**NORMAL PARAFFINS C5-20:** Repeated and prolonged contact may cause defatting of the skin which may result in dermatitis and effects as detailed in acute exposure.

**CONFIDENTIAL 1:** Excessive concentration of nuisance dusts in the workroom may cause unpleasant deposits on the skin and in the ears. Injury to the skin may occur by chemical or mechanical action or by the rigorous skin cleansing procedures necessary for their removal.

**EYE CONTACT:**

**ACUTE EXPOSURE:**

**NORMAL PARAFFINS C5-20:** Expected to cause no more than minimal eye irritation.

**CONFIDENTIAL 1:** Excessive concentrations of nuisance dusts in the workroom air may seriously reduce visibility and may cause unpleasant deposits in the eyes.

**CHRONIC EXPOSURE:**

**NORMAL PARAFFINS C5-20:** No data available.

**CONFIDENTIAL 1:** No data available.

**INGESTION:**

**ACUTE EXPOSURE:**

**NORMAL PARAFFINS C5-20:** Lung damage may occur if aspirated into the lungs and may be fatal. Symptoms may include coughing, difficulty breathing, cyanosis, and pulmonary edema. Hydrocarbons may have a direct irritative action on the pharynx, esophagus, stomach, and small intestine with edema and mucosal ulceration and occasional myocardial injury with arrhythmias and electrocardiographic changes. Central nervous system depression may occur with effects as detailed in acute inhalation. Mineral oils may cause gastrointestinal disturbances such as diarrhea. **CONFIDENTIAL 1:** No data available.

**CHRONIC EXPOSURE:**

**NORMAL PARAFFINS C5-20:** No data available.

**CONFIDENTIAL 1:** No data available.

## 12. ECOLOGICAL INFORMATION

Not available

## 13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

## 14. TRANSPORT INFORMATION

**U.S. DEPARTMENT OF TRANSPORTATION: No classification assigned.**  
**CANADIAN TRANSPORTATION OF DANGEROUS GOODS: No classification assigned.**  
LAND TRANSPORT ADR: No classification assigned.  
LAND TRANSPORT RID: No classification assigned.  
AIR TRANSPORT IATA: No classification assigned.  
AIR TRANSPORT ICAO: No classification assigned.  
MARITIME TRANSPORT IMDG: No classification assigned.

## 15. REGULATORY INFORMATION

### U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.  
SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):  
Not regulated.  
SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):  
Not regulated.  
SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):  
ACUTE: No  
CHRONIC: No  
FIRE: No  
REACTIVE: No  
SUDDEN RELEASE: No  
SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.  
OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

### STATE REGULATIONS:

California Proposition 65: Not regulated.

### CANADIAN REGULATIONS:

WHMIS CLASSIFICATION: Not determined.

### EUROPEAN REGULATIONS:

EC CLASSIFICATION (CALCULATED): Not determined.

### NATIONAL INVENTORY STATUS:

U.S. INVENTORY (TSCA): All the components of this substance are listed on  
or are exempt from the inventory.  
TSCA 12(b) EXPORT NOTIFICATION: Not listed.

**16. OTHER INFORMATION**

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