



MATERIAL SAFETY DATA SHEET (M.S.D.S.) fully refined paraffin wax

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: **fully refined paraffin**

waxProduct

Description: Paraffin Wax Intended Use: Wax

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

No reportable Hazardous substance(s) or Complex Substance(s).

CAS No. 64742-51-4

SECTION 3 – HAZARDS IDENTIFICATION

Emergency Overview: This material is solid at ambient temperature and exhibits softening (melting) characteristics at elevated temperatures. At elevated temperatures well above the softening point, the generation of hydrocarbon vapors may be expected.

Warning: When handling at elevated temperature, wear protective gloves and other PPE to protect against thermal burns. Spills may create a slipping hazard.

POTENTIAL PHYSICAL EFFECTS

SKIN CONTACT – contact with molten material can result in severe burns.

EYE CONTACT – Direct contact of molten product to the eyes will cause thermal burns and injury.

INHALATION – Breathing fumes in confined areas can cause respiratory discomfort and possible irritation.

POTENTIAL HEALTH EFFECTS

Low order of toxicity. High-pressure injection into or under skin may cause a serious medical condition.

NFPA Hazard ID:	Health: <u>1</u>	Flammability: <u>1</u>	Reactivity: <u>0</u>
HMIS Hazard ID:	Health: 1	Flammability: 1	Reactivity: 0

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NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice.

SECTION 4 – FIRST AID PROCEDURES

EYE CONTACT

If irritation or redness develops from exposure to fumes, move victim away from exposure and into fresh air. Flush eyes with clean water for at least 15 minutes. If irritation or redness persists, seek medical attention. For contact with molten material, gently open eyelids and flush affected eye(s) with cold water. Seek immediate medical attention.

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use appropriate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with medical device or use mouth-to-mouth resuscitation.

SKIN CONTACT:

If burned by contact with molten material, hot material adhering to the skin should be cooled as quickly as possible with water. Seek a physician for removal of adhering material and treatment of burn. If the material has been injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial medical symptoms from injection may be minimal or absent, early treatment within the first few hours may significantly reduce the extent of injury.

INGESTION

The material is not acutely toxic by ingestion. First aid is not normally required. Seek medical attention if discomfort occurs.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.



Inappropriate Extinguishing Media: Straight streams of water.

FIRE FIGHTING

Fire Fighting Instructions: Evacuate the area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus. Use water to cool exposed surfaces to fire and to protect personnel. Molten material can form flaming droplets if ignited. Use of water on the material above 100°C (212°F) can cause the material to expand with explosive force.

FLAMMABILITY PROPERTIES

Flash Point [Method] >193°C (393°F) [ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: No data UEL: No data

Autoignition Temperature: No data

HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, carbon monoxide, smoke, vapors (fumes),

and other products of incomplete hydrocarbon combustion.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. Notify relevant authorities in accordance with all applicable regulations. United States regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity which could reach any waterway including intermittent dry creeks. For more specific information, refer to the Emergency Overview on Section 3, Exposure Controls and Personal Protection in Section 8, and Disposal Consideration in Section 13 of this MSDS.

SPILL MANAGEMENT

Land Spill: Contain spill and evacuate non-essential personnel. Allow spilled material to solidify and scrape up with shovels into a suitable container for recycle or disposal. On hard surfaces, a spill may create a slipping hazard. In an urban area, cleanup spill as soon as possible; in natural environments, seek cleanup advice from environmental specialists.

Water Spill: Stop leak if you can without risk to injury. Confine the spill immediately with booms. Skim material from the surface.



ENVIRONMENTAL PRECAUTIONS

Equip cleanup crew with proper protective equipment and advise of pertinent hazards. For large spills: dike far enough ahead of molten material for alter recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas. Comply with all laws and regulations.

SECTION 7 – HANDLING AND STORAGE

HANDLING

Use normal precautions when handling hot, molten materials. Do not breathe fumes or vapor from molten material. Do not allow molten material to contact skin. The material can accumulate static charges which may cause an electrical spark (ignition source).

STORAGE

Store only in accordance with NFPA standards. This material can catch fire if over-heated. DO NOT heat this material above its flash point. Keep away from flames and open electrical coils.
Storage Temperature: < 80°C (176°F)

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

<u>Substance</u>	<u>Limit / Standard</u>	<u>SOURCE</u>
fully refined paraffin wax fumes	TWA: 2 mg/m ³	ACGIH (United States)

NOTE: Limits / Standard shown for guidance only. Follow applicable regulations.



ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. A control measure to consider: Adequate ventilation should be provided so that exposure limits are not exceeded. An eye wash station and safety shower should be located near the work station.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration, and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, a NIOSH-approved organic vapor respirator equipped with a mist pre-filter may be appropriate. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Contact the glove manufacturer for specific advice on glove selection for the intended use and conditions. Inspect and replace worn or damaged gloves. When handling the material at elevated temperatures, use long-cuffed leather or heat-resistant gloves.

Skin and Body Protection: Prevent skin contact when handling heated or molten material. Any specific clothing information provided is based on published literature or manufacturer data. Use heat resistant clothing such as chemical resistant apron and long sleeves. Use a full-body heat-resistant or internally cooled work suit if conditions dictate.

Eye Protection: If contact with the molten material may occur, safety glasses and face shields are recommended. If material is at ambient temperature, safety glasses equipped with side shields are recommended as minimal protection. A suitable eye wash station should be available in the work area.

Specific Hygiene Measures: Always practice good personal hygiene such as washing hands and other exposed skin areas with mild soap and water before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing or footwear that cannot be cleaned. Do not use harsh, abrasive skin cleansers. Use good housekeeping measures.



SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Solid (at ambient temperatures)

Color: White (at ambient temperatures)

Odor: Faint to Mild Odor

Specific Gravity: 0.83 (Water = 1)

Flash Point [Method] : >193°C (>379°F) [ASTM D-92]

Flammability Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: N/D

Boiling Point / Range: >310°C (>590°F)

Melting/Freezing Point: >50°C (>122°F)

pH: Not applicable

Solubility in Water: Negligible

Vapor Pressure: 0.013kPa (0.1mm Hg) at 20°C

Viscosity: [N/A at 40°C], 3.4 -3.9 mm²/sec (cSt) at 100°C (212°)

Log Pow (n-Octanol/Water Partition Coefficient) : >6

Additional Properties:

Gravity, °API [ASTM D-287] = 40.5 – 44.0 @ 60°F

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions

CONDITIONS TO AVOID: Keep away from excessive heat and open flame

MATERIALS TO AVOID: Strong Oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

<u>Route of Exposure</u>	<u>Conclusion / Remarks</u>
Inhalation	
Toxicity: No end point data	Not determined
Irritation: No end point data	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes and respiratory tract. Based on assessment of components.
Ingestion	
Toxicity (Rat): LD50 >5000 mg/kg	Minimally toxic.
Skin	
Irritation (Rabbit): LD50 >2000 mg/kg	Negligible irritation to skin at ambient

For the material itself:

Petroleum wax: Not carcinogenic in lifetime animal skin painting or oral feeding studies. It did not cause mutations in vitro. High oral doses in one rat strain (F-344) resulted in microscopic inflammatory changes (micro-granulation) in liver, spleen, lymph nodes, some increased organ weights, inflammation of the cardiac mitral valve, and accumulation of saturated mineral hydrocarbons in certain tissues. It was found non-sensitizing in animal tests and human subjects.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity

Ecological effects testing have not been conducted on this material. Discharges are expected to cause only localized environmental damage and not expected to be harmful to aquatic organisms.

MOBILITY

Petroleum-based waxes normally float on water and have low solubility and are expected to migrate from water to land. The wax is expected to partition to soil and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Components of petroleum waxes will biodegrade over time.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment, and/or disposal methodologies for spent materials and residues at the time of disposition.

DISPOSAL RECOMMENDATIONS

Suitable routes of disposal are supervised incineration, preferably with energy recovery, or recycling methods in accordance with applicable regulations and material characteristics at the time of disposal.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused material, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. The material does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity. The material is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated. Contact your regional US EPA office for guidance concerning case specific disposal issues.

SECTION 14 – TRANSPORT INFORMATION

The shipping description below may not represent requirements for all modes of transportation, shipping methods, or locations outside of the United States.

DOT Proper Shipping Name	Not regulated
DOT Hazardous Classification	Not regulated
DOT Haz. Mat Table 172.101	Not Listed
DOT Labels Required DOT	None
Placards Required MARPOL	None for solid material
III Status TDG Classification	None for molten material shipped under 100°C (212°F)
Reportable Quantity	Hot molten material greater than 100°C (212°F) requires class 9 'HOT' placard
	Bill of Lading must be carry the statement: Elevated temperature material, liquid, N.O.S. 9, UN3257, III (WAX)
	Not a DOT 'Marine Pollutant' per 49 CFR 171.8
	Not controlled under TDG (Canada)
	Not been established for this material

SECTION 15 – REGULATORY INFORMATION

TSCA Inventory	This material and/or its components are listed on the Toxic Substance Control Act (TSCA) inventory.
SARA 302/304	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302/304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for 'Extremely Hazardous Substances' listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.
SARA 311/312	None
SARA 313	This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.



CERCLA	This material does not contain any chemical substances
WHMIS	This is not controlled material as defined by the Canadian Hazardous Products Act (Bill C70)
CANADIAN DSL	Listed

PA RTK

For Pennsylvania Right to Know requirements, no components cited.

**NATIONAL CHEMICAL
INVENTORY LISTING**

AICS, EINECS, IECSC, ENCS, KECL, NZIOFC, PICCS

MITI

Listed

SECTION 16 – OTHER INFORMATION

THIS MATERIAL SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

No revision information is available.

ABBREVIATIONS

>: Greater Than

N/D: No data

N/A: Not Applicable

EPA: US Environmental Protection Agency

NFPA: National Fire Protection Association

DISCLAIMER OF LIABILITY

The information and recommendations contained herein are, to the best of United Wax's knowledge and belief, accurate and reliable as of the date issued. However, the information is provided without any warranty, expressed or implied regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the material itself. This MSDS was prepared and is to be used only for this material. If the material is used as a component in another formulated product, this MSDS information may not be applicable. Users should make their own determination as to the suitability of the information for their particular purpose. Appropriate warnings and safe-handling procedures should be provided to handlers and users.

The conditions or methods of handling, storing, using, and disposing of the material are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out or in any way connected with handling, storing, using, or disposal of the material.