

Section 1 Identification

1.1 Product identifiers

Product name: Freeman Optical Soluble Wax

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

Identified uses: Investment casting, temporary adhesive

1.3 Details of the supplier of the safety data sheet

Freeman Manufacturing and Supply Company
 1101 Moore Road, Avon, OH 44011
 contactus@freemansupply.com
 (440) 934-1902

1.4 Emergency telephone number

CHEMTREC (800) 424-9300

Section 2 Hazards Identification

2.1 Classification of the substance or mixture

Not classified according to OSHA 29 CFR 1910.1200 HCS

2.2 GHS Label elements, including precautionary statements

No label element(s) required

2.3 Hazards not otherwise classified

Molten product can cause serious burns.

Section 3 Composition/Information on Ingredients

3.1 Mixture of Substances

Proprietary mixture of synthetic waxes.

No components need to be disclosed according to the applicable regulations.

Section 4 First Aid Measures

4.1 Description of first aid measures

Inhalation Get medical assistance if irritation develops or persists. If breathing is difficult, move the person to fresh air. Give artificial respiration if person is not breathing.

Skin contact For thermal burns, flush or submerge effected area in cold water to dissipate heat. Cover with clean bandage material. Do not peel material from skin. Get medical attention. For contact at ambient temperatures, wash with soap and water.

Eye contact Immediately flush with plenty of water for at least 15 minutes. If irritation persists, get medical attention immediately, preferably an ophthalmologist.

Ingestion If swallowed, rinse mouth with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Consult a physician if necessary.

Section 5 Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media: Water fog, dry chemical, foam, carbon dioxide.

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards: Product is a waxy solid and is not expected to form dust. Organic dusts at sufficient concentration may form explosive mixtures in air. During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, nitrogen oxides, irritating smoke

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

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Section 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Wear appropriate personal protective equipment.

6.2 Environmental precautions

Should not be released into the environment. Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up

Do not walk through spilled material. Contain spillage and use clean non-sparking tools to collect material. Shovel spillage into suitable container for disposal. Flush any residue with water.

Section 7 Handling and Storage

7.1 Precautions for safe handling

Do not heat material above 200°F. Do not breathe vapors/dust. Do not get in eyes or mouth or on skin. Keep away from sources of ignition. Use normal precautions when handling hot molten liquid solutions. Avoid creating dust. Provide appropriate exhaust ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Store at temperatures not exceeding 30°C (86°F) in closed containers. Avoid prolonged exposure to heat or air. Keep away from flame and sources of ignition. See Section 10 for incompatibilities.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines: Not established

8.2 Exposure controls

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, very hot processing, mechanical generation of dusts, etc.

8.3 Personal protective equipment

Eye/Face: Use a full-face shield and safety glasses if handling heated material. With product at ambient temperatures, use safety glasses equipped with side shields.

Hands: Use gloves chemically resistant to this material when prolonged or frequent repeated contact could occur. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Examples of preferred glove barrier materials include: neoprene, polyvinyl chloride (PVC) or butyl rubber gloves. When handling product at elevated temperatures, use heat-resistant gloves.

Skin/Body: Prevent skin contact, wear long sleeves and/or coveralls.

Respiratory: The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, use an N95 dust mask for limited exposure. For prolonged exposure use an air-purifying respirator. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Safety Stations

Make emergency eyewash stations and washing facilities available in work area.

General Hygienic Practices

Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse. Avoid breathing dust, vapor or mist.

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Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State:	Translucent waxy solid
Color:	White to light yellow
Odor:	Odorless
Odor Threshold:	No data available
pH:	4.0-8.0
Melting Point:	>144°F (>62°C)
Boiling Point:	>200°F (>93°C)
Decomposition Temperature:	No data available
Flash Point:	Approximately 475°F (246°C)
Flammability:	Not ignitable
Lower Explosion Limit:	No data available
Upper Explosion Limit:	No data available
Vapor Density:	No data available
Specific Gravity:	1.4
Water Solubility:	72% at 68°F (20°C) <i>Estimated</i>
Partition Coefficient: n-octanol/water:	No data available
Autoignition Temperature:	No data available
Viscosity:	Solid at room temperature

Section 10 Stability and Reactivity

10.1 Reactivity:	No dangerous reaction known under conditions of normal use.
10.2 Chemical stability:	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions:	No dangerous reactions known under conditions of normal use.
10.4 Conditions to avoid:	Do not heat material above 200°F. Avoid heat, sparks, open flame. Avoid dust formation.
10.5 Incompatible materials:	Strong oxidizing agents. Strong acids. Strong bases.
10.6 Hazardous decomposition products	Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes, alcohols, ethers, carbon dioxide, carbon monoxide, carboxylic acids, nitrogen oxides, polymer fragments

Section 11 Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity – Dermal	No data available on product
Acute Toxicity – Inhalation	No data available on product
Acute Toxicity – Oral	No data available on product
Skin Corrosion/Irritation	Classification criteria not met
Serious Eye Damage/Eye Irritation	Classification criteria not met
Respiratory or Skin Sensitization	Classification criteria not met
Germ Cell Mutagenicity	Classification criteria not met
Reproductive Toxicity	Classification criteria not met
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by IARC, NTP, or OSHA.
Specific Target Organ Toxicity (STOT)	Single and Repeated Exposure: No data available
Aspiration Hazard	Not relevant

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Section 12 Ecological Information

12.1 Toxicity	No data available
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	Not expected due to water solubility
12.5 Results of PBT & vPvB assessment	No data available

Section 13 Disposal Considerations

13.1 Disposal	Follow applicable Federal, State, and local regulations.
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Section 14 Transport Information

14.1 DOT, TDG, IMO/IMDG, IATA/ICAO:	Not regulated
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Section 15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the product

Inventories: This product complies with the following inventories: USA TSCA

SARA 302 Components: No chemicals in this material are subject to the reporting requirements.

SARA 311/312 Hazards Classifications: None

SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

RCRA: In the form delivered, this product is not considered as hazardous waste, and is not subject to reporting under the Resource Conservation and Recovery Act.

Pennsylvania Right To Know: 1-Vinyl-2-Pyrrolidone, - Vinyl Acetate Polymer CAS 25086-89-9

New Jersey Right To Know: 1-Vinyl-2-Pyrrolidone, - Vinyl Acetate Polymer CAS 25086-89-9

California Proposition 65: ⚠️ **WARNING:** This product may expose you to chemicals including acetaldehyde, which is known to the State of California to cause cancer.

For more information, visit www.P65Warnings.ca.gov.

Chemical Name	CAS Number	Concentration (%)	No Significant Risk Level (NSRL)
Acetaldehyde	75-07-0	<0.01	90 µg/day (Inhalation)

Section 16 Other Information

16.1 Disclaimer

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Issue Date: May1, 2015

Revision Date: May 18, 2022