

# WAXES: CARNAUBA

WCA

## CAUTIONARY RESPONSE INFORMATION

Common Synonyms	Solid	Yellow to dark brownish green	Odorless
	Floats on water and solidifies.		
Keep people away. Avoid contact with solid. Call fire department. Notify local health and pollution control agencies.			
Fire	Combustible. Extinguish with foam, water, dry chemical, or carbon dioxide.		
Exposure	LIQUID Will burn skin and eyes. Remove wax. Flush affected areas with plenty of water.		
Water Pollution	Effect of low concentrations on aquatic life is unknown. Fouling to shoreline. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.		

### 1. CORRECTIVE RESPONSE ACTIONS

Stop discharge  
Contain  
Collection Systems: Skim  
Clean shore line  
Salvage waterfowl

### 2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.  
2.2 Formula: Not pertinent  
2.3 IMO/UN Designation: Not listed  
2.4 DOT ID No.: Not listed  
2.5 CAS Registry No.: Currently not available  
2.6 NAERG Guide No.: Not listed  
2.7 Standard Industrial Trade Classification: 33510

### 3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Goggles or face shield; protective gloves and clothing for hot liquid wax.  
3.2 Symptoms Following Exposure: Hot wax can burn skin and eyes.  
3.3 Treatment of Exposure: SKIN OR EYE CONTACT: remove solidified wax from skin, wash with soap and water; if in eyes, or if skin is burned, call a doctor.  
3.4 TLV-TWA: Not listed.  
3.5 TLV-STEL: Not listed.  
3.6 TLV-Ceiling: Not listed.  
3.7 Toxicity by Ingestion: Currently not available  
3.8 Toxicity by Inhalation: Currently not available.  
3.9 Chronic Toxicity: Currently not available  
3.10 Vapor (Gas) Irritant Characteristics: Not volatile  
3.11 Liquid or Solid Characteristics: Hot wax can burn skin and eyes.  
3.12 Odor Threshold: Odorless  
3.13 IDLH Value: Not listed.  
3.14 OSHA PEL-TWA: Not listed.  
3.15 OSHA PEL-STEL: Not listed.  
3.16 OSHA PEL-Ceiling: Not listed.  
3.17 EPA AEGL: Not listed

### 4. FIRE HAZARDS

4.1 Flash Point: 595°F O.C. 540°F C.C.  
4.2 Flammable Limits in Air: Not pertinent  
4.3 Fire Extinguishing Agents: Water, foam, dry chemical, or carbon dioxide  
4.4 Fire Extinguishing Agents Not to Be Used: Water or foam may cause frothing.  
4.5 Special Hazards of Combustion Products: Not pertinent  
4.6 Behavior in Fire: Not pertinent  
4.7 Auto Ignition Temperature: Currently not available  
4.8 Electrical Hazards: Not pertinent  
4.9 Burning Rate: Not pertinent  
4.10 Adiabatic Flame Temperature: Currently not available  
4.11 Stoichiometric Air to Fuel Ratio: Not pertinent.  
4.12 Flame Temperature: Currently not available  
4.13 Combustion Molar Ratio (Reactant to Product): Not pertinent.  
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed

### 5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: No reaction  
5.2 Reactivity with Common Materials: No reaction  
5.3 Stability During Transport: Stable  
5.4 Neutralizing Agents for Acids and Caustics: Not pertinent  
5.5 Polymerization: Not pertinent  
5.6 Inhibitor of Polymerization: Not pertinent

### 6. WATER POLLUTION

6.1 Aquatic Toxicity: Currently not available  
6.2 Waterfowl Toxicity: Currently not available  
6.3 Biological Oxygen Demand (BOD): Currently not available  
6.4 Food Chain Concentration Potential: None  
6.5 GESAMP Hazard Profile:  
Bioaccumulation: -  
Damage to living resources: -  
Human Oral hazard: -  
Human Contact hazard: -  
Reduction of amenities: X

### 7. SHIPPING INFORMATION

7.1 Grades of Purity: Shipped in a variety of grades, depending on source of wax and intended use. All have about the same hazardous properties.  
7.2 Storage Temperature: Elevated  
7.3 Inert Atmosphere: No requirement  
7.4 Venting: Open (flame arrester)  
7.5 IMO Pollution Category: D  
7.6 Ship Type: Data not available  
7.7 Barge Hull Type: Currently not available

### 8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Not listed  
8.2 49 CFR Class: Not pertinent  
8.3 49 CFR Package Group: Not listed.  
8.4 Marine Pollutant: No  
8.5 NFPA Hazard Classification: Not listed  
8.6 EPA Reportable Quantity: Not listed.  
8.7 EPA Pollution Category: Not listed.  
8.8 RCRA Waste Number: Not listed  
8.9 EPA FWPCA List: Not listed

### 9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Physical State at 15° C and 1 atm: Solid  
9.2 Molecular Weight: Not pertinent  
9.3 Boiling Point at 1 atm: Very high  
9.4 Freezing Point: 176–187°F = 80–86°C = 353–359°K  
9.5 Critical Temperature: Not pertinent  
9.6 Critical Pressure: Not pertinent  
9.7 Specific Gravity: 0.998 at 25°C (solid)  
9.8 Liquid Surface Tension: 32 dynes/cm = 0.032 N/m at 100°C  
9.9 Liquid Water Interfacial Tension: Currently not available  
9.10 Vapor (Gas) Specific Gravity: Not pertinent  
9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent  
9.12 Latent Heat of Vaporization: Not pertinent  
9.13 Heat of Combustion: Currently not available  
9.14 Heat of Decomposition: Not pertinent  
9.15 Heat of Solution: Not pertinent  
9.16 Heat of Polymerization: Not pertinent  
9.17 Heat of Fusion: Currently not available  
9.18 Limiting Value: Currently not available  
9.19 Reid Vapor Pressure: Low

### NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
280	48.690	100	0.541	190	1.040	190	4.720
282	48.690	102	0.556	192	1.040	192	4.641
284	48.690	104	0.570	194	1.040	194	4.563
286	48.690	106	0.585	196	1.040	196	4.487
288	48.690	108	0.599	198	1.040	198	4.412
290	48.690	110	0.614	200	1.040	200	4.340
292	48.690	112	0.628	202	1.040	202	4.269
294	48.690	114	0.643	204	1.040	204	4.199
296	48.690	116	0.657	206	1.040	206	4.131
298	48.690	118	0.671	208	1.040	208	4.065
300	48.690	120	0.686	210	1.040	210	4.000
302	48.690	122	0.700	212	1.040	212	3.936
304	48.690	124	0.715	214	1.040	214	3.874
306	48.690	126	0.729	216	1.040	216	3.813
308	48.690	128	0.744	218	1.040	218	3.754
310	48.690	130	0.758	220	1.040	220	3.696
312	48.690	132	0.773	222	1.040	222	3.639
314	48.690	134	0.787	224	1.040	224	3.583
316	48.690	136	0.801				
318	48.690	138	0.816				
320	48.690	140	0.830				
322	48.690	142	0.845				
324	48.690	144	0.859				
326	48.690	146	0.874				
328	48.690	148	0.888				
330	48.690	150	0.903				

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	I N S O L U B L E		C U R R E N T L Y  N O T  A V A I L A B L E		C U R R E N T L Y  N O T  A V A I L A B L E		N O T  P E R T I N E N T