

OILS, EDIBLE: CASTOR

OCA

| CAUTIONARY RESPONSE INFORMATION | | | | 4. FIRE HAZARDS | 7. SHIPPING INFORMATION |
|--|---|--------------------------|-----------|---|---|
| Common Synonyms | Oily liquid Floats on water. | Light yellow to green | Weak odor | <p>4.1 Flash Point: 445°F C.C.</p> <p>4.2 Flammable Limits in Air: Currently not available</p> <p>4.3 Fire Extinguishing Agents: Dry chemical, foam, or carbon dioxide</p> <p>4.4 Fire Extinguishing Agents Not to Be Used: Water or foam may cause frothing.</p> <p>4.5 Special Hazards of Combustion Products: Not pertinent</p> <p>4.6 Behavior in Fire: Not pertinent</p> <p>4.7 Auto Ignition Temperature: 840°F</p> <p>4.8 Electrical Hazards: Not pertinent</p> <p>4.9 Burning Rate: Currently not available</p> <p>4.10 Adiabatic Flame Temperature: Currently not available</p> <p>4.11 Stoichiometric Air to Fuel Ratio: Not pertinent</p> <p>4.12 Flame Temperature: Currently not available</p> <p>4.13 Combustion Molar Ratio (Reactant to Product): Not pertinent.</p> <p>4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed</p> | <p>7.1 Grades of Purity: Commercial; meets Mil. Specs. and ASTM; USP; USP Odorless; Technical. All grades differ only in color and acid values.</p> <p>7.2 Storage Temperature: Ambient</p> <p>7.3 Inert Atmosphere: No requirement</p> <p>7.4 Venting: Open (flame arrester)</p> <p>7.5 IMO Pollution Category: D</p> <p>7.6 Ship Type: Data not available</p> <p>7.7 Barge Hull Type: Currently not available</p> |
| Fire | Combustible. Extinguish with dry chemical, foam or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water. | | | | 8. HAZARD CLASSIFICATIONS |
| Exposure | Not harmful. | | | | <p>8.1 49 CFR Category: Not listed</p> <p>8.2 49 CFR Class: Not pertinent</p> <p>8.3 49 CFR Package Group: Not listed.</p> <p>8.4 Marine Pollutant: No</p> <p>8.5 NFPA Hazard Classification: Not listed</p> <p>8.6 EPA Reportable Quantity: Not listed.</p> <p>8.7 EPA Pollution Category: Not listed.</p> <p>8.8 RCRA Waste Number: Not listed</p> <p>8.9 EPA FWPCA List: Not listed</p> |
| 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. | | | | 9. PHYSICAL & CHEMICAL PROPERTIES |
| 1. CORRECTIVE RESPONSE ACTIONS | Stop discharge Contain Collection Systems: Skim Chemical and Physical Treatment: Absorb Clean shore line Salvage waterfowl | 2. CHEMICAL DESIGNATIONS | | | <p>9.1 Physical State at 15° C and 1 atm: Liquid</p> <p>9.2 Molecular Weight: Not pertinent</p> <p>9.3 Boiling Point at 1 atm: Varies, depending on composition</p> <p>9.4 Freezing Point: 10°F = -12°C = 261°K</p> <p>9.5 Critical Temperature: Not pertinent</p> <p>9.6 Critical Pressure: Not pertinent</p> <p>9.7 Specific Gravity: 0.96 at 25°C (liquid)</p> <p>9.8 Liquid Surface Tension: 39 dynes/cm = 0.039 N/m at 20°C</p> <p>9.9 Liquid Water Interfacial Tension: 19.2 dynes/cm = 0.0192 N/m at 22°C</p> <p>9.10 Vapor (Gas) Specific Gravity: Not pertinent</p> <p>9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent</p> <p>9.12 Latent Heat of Vaporization: Not pertinent</p> <p>9.13 Heat of Combustion: -15,950 Btu/lb = -8,860 cal/g = -371.0 X 10³ J/kg</p> <p>9.14 Heat of Decomposition: Not pertinent</p> <p>9.15 Heat of Solution: Not pertinent</p> <p>9.16 Heat of Polymerization: Not pertinent</p> <p>9.17 Heat of Fusion: Currently not available</p> <p>9.18 Limiting Value: Currently not available</p> <p>9.19 Reid Vapor Pressure: 0.10 psia</p> |
| 3. HEALTH HAZARDS | | | | | NOTES |
| 3.1 Personal Protective Equipment: Goggles or face shield. | | | | | |
| 3.2 Symptoms Following Exposure: If ingested causes severe diarrhea. | | | | | |
| 3.3 Treatment of Exposure: INGESTION: if more than 2 tablespoons, consult physician. EYES: flush with water for at least 15 min. SKIN: wipe off, wash with soap and water. | | | | | |
| 3.4 TLV-TWA: Not listed. | | | | | |
| 3.5 TLV-STEL: Not listed. | | | | | |
| 3.6 TLV-Ceiling: Not listed. | | | | | |
| 3.7 Toxicity by Ingestion: Grade 1; LD ₅₀ = 5 to 15 g/kg (Fatal dose unknown but presumably large). | | | | | |
| 3.8 Toxicity by Inhalation: Currently not available. | | | | | |
| 3.9 Chronic Toxicity: Not pertinent | | | | | |
| 3.10 Vapor (Gas) Irritant Characteristics: None | | | | | |
| 3.11 Liquid or Solid Characteristics: None | | | | | |
| 3.12 Odor Threshold: Currently not available | | | | | |
| 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 A EGL: Not listed | | | | | |

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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 |
| 50 | 60.860 | 35 | 0.478 | 70 | 1.206 | 50 | 3909.000 |
| 52 | 60.790 | 40 | 0.478 | 80 | 1.206 | 55 | 3027.000 |
| 54 | 60.720 | 45 | 0.478 | 90 | 1.206 | 60 | 2356.000 |
| 56 | 60.650 | 50 | 0.478 | 100 | 1.206 | 65 | 1842.000 |
| 58 | 60.580 | 55 | 0.478 | 110 | 1.206 | 70 | 1448.000 |
| 60 | 60.510 | 60 | 0.478 | 120 | 1.206 | 75 | 1142.000 |
| 62 | 60.450 | 65 | 0.478 | 130 | 1.206 | 80 | 905.500 |
| 64 | 60.380 | 70 | 0.478 | 140 | 1.206 | 85 | 720.799 |
| 66 | 60.310 | 75 | 0.478 | 150 | 1.206 | 90 | 576.199 |
| 68 | 60.240 | 80 | 0.478 | 160 | 1.206 | 95 | 462.399 |
| 70 | 60.170 | 85 | 0.478 | 170 | 1.206 | 100 | 372.599 |
| 72 | 60.100 | 90 | 0.478 | 180 | 1.206 | 105 | 301.399 |
| 74 | 60.030 | 95 | 0.478 | 190 | 1.206 | 110 | 244.699 |
| 76 | 59.960 | 100 | 0.478 | 200 | 1.206 | 115 | 199.299 |
| 78 | 59.890 | | | 210 | 1.206 | 120 | 163.000 |
| 80 | 59.820 | | | 220 | 1.206 | 125 | 133.699 |
| 82 | 59.750 | | | 230 | 1.206 | 130 | 110.099 |
| 84 | 59.680 | | | 240 | 1.206 | 135 | 90.940 |
| 86 | 59.610 | | | 250 | 1.206 | | |
| 88 | 59.540 | | | 260 | 1.206 | | |
| 90 | 59.470 | | | | | | |
| 92 | 59.410 | | | | | | |
| 94 | 59.340 | | | | | | |
| 96 | 59.270 | | | | | | |
| 98 | 59.200 | | | | | | |
| 100 | 59.130 | | | | | | |

| 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 | | 35 | 0.013 | | N | | N |
| N | | 40 | 0.016 | | O | | O |
| S | | 45 | 0.018 | | T | | T |
| O | | 50 | 0.022 | | | | |
| L | | 55 | 0.026 | | P | | P |
| U | | 60 | 0.030 | | R | | R |
| B | | 65 | 0.035 | | I | | I |
| L | | 70 | 0.041 | | N | | N |
| E | | 75 | 0.048 | | E | | E |
| | | 80 | 0.056 | | T | | T |
| | | 85 | 0.065 | | | | |
| | | 90 | 0.075 | | | | |
| | | 95 | 0.086 | | | | |
| | | 100 | 0.099 | | | | |
| | | 105 | 0.113 | | | | |
| | | 110 | 0.129 | | | | |
| | | 115 | 0.147 | | | | |
| | | 120 | 0.168 | | | | |