

DOWTHERM

DTH

| CAUTIONARY RESPONSE INFORMATION | | | |
|--|--|---------------------|--|
| Common Synonyms Diphenyl-diphenyl ether mixture Dowtherm A | Liquid | Light to dark brown | Fragrant odor May float or sink in water. Freezing point is 54°F. |
| Call fire department. Avoid contact with liquid. Notify local health and pollution control agencies. Protect water intakes. | | | |
| Fire | Combustible. Wear self-contained breathing apparatus. Extinguish with water, dry chemical, foam or carbon dioxide. | | |
| Exposure | CALL FOR MEDICAL AID. LIQUID Irritating to skin and eyes. Harmful if swallowed. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk, have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS; do nothing except keep victim warm. | | |
| Water Pollution | Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes. | | |

| 1. CORRECTIVE RESPONSE ACTIONS | 2. CHEMICAL DESIGNATIONS | 4. FIRE HAZARDS | 7. SHIPPING INFORMATION |
|--|---|---|--|
| Stop discharge Contain Collection Systems: Skim; Pump; Dredge Clean shore line Salvage waterfowl | 2.1 CG Compatibility Group: Not listed. 2.2 Formula: (C ₆ H ₅ -O-C ₆ H ₅)(C ₆ H ₅ -C ₆ H ₅) 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: 51129 | 4.1 Flash Point: 255°F O.C. 4.2 Flammable Limits in Air: At 500°F: 0.5%-6.2% At 300°F: 0.8%-3.3% 4.3 Fire Extinguishing Agents: Water fog, foam, carbon dioxide, dry chemical 4.4 Fire Extinguishing Agents Not to Be Used: Currently not available 4.5 Special Hazards of Combustion Products: Irritating gases generated when heated 4.6 Behavior in Fire: Not pertinent 4.7 Auto Ignition Temperature: 1150°F 4.8 Electrical Hazards: Not pertinent 4.9 Burning Rate: Currently not available 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 | 7.1 Grades of Purity: 73.5% Diphenyl ether, 26.5% Diphenyl (eutectic) 7.2 Storage Temperature: Ambient 7.3 Inert Atmosphere: No requirement 7.4 Venting: Open (flame arrester) 7.5 IMO Pollution Category: Currently not available 7.6 Ship Type: 1 7.7 Barge Hull Type: Currently not available |
| 3. HEALTH HAZARDS | | | |
| 3.1 Personal Protective Equipment: Safety glasses 3.2 Symptoms Following Exposure: Odor of hot material may cause discomfort. Mildly irritating to eyes and skin. 3.3 Treatment of Exposure: INHALATION: if ill effects are experienced, remove to fresh air and get medical attention. INGESTION: no known antidote; treat the symptoms; induce vomiting if large amounts are swallowed and get medical attention. EYES OR SKIN: flush with plenty of water; get medical attention if ill effects develop. 3.4 TLV-TWA: Not listed. 3.5 TLV-STEL: Not listed. 3.6 TLV-Ceiling: Not listed. 3.7 Toxicity by Ingestion: Grade 2; LD ₅₀ = 0.5 to 5 g/kg 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Currently not available 3.10 Vapor (Gas) Irritant Characteristics: Vapors cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary. 3.11 Liquid or Solid Characteristics: Minimum hazard. If spilled on clothing and allowed to remain, may cause smarting and reddening of the skin. 3.12 Odor Threshold: 0.1-1.0 ppm 3.13 IDLH Value: Not listed. 3.14 OSHA PEL-TWA: 1 ppm 3.15 OSHA PEL-STEL: Not listed. 3.16 OSHA PEL-Ceiling: Not listed. 3.17 EPA AEGL: Not listed | | | |
| 2. CHEMICAL DESIGNATIONS | | | |
| 4. FIRE HAZARDS | | | |
| 7. SHIPPING INFORMATION | | | |
| 8. HAZARD CLASSIFICATIONS | | | |
| 9. PHYSICAL & CHEMICAL PROPERTIES | | | |
| 5. CHEMICAL REACTIVITY | | | |
| 6. WATER POLLUTION | | | |
| 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 |
| 60 | 66.389 | 60 | 0.373 | 60 | 0.979 | 70 | 3.504 |
| 70 | 66.110 | 70 | 0.377 | 80 | 0.970 | 75 | 3.314 |
| 80 | 65.839 | 80 | 0.381 | 100 | 0.961 | 80 | 3.138 |
| 90 | 65.559 | 90 | 0.385 | 120 | 0.952 | 85 | 2.975 |
| 100 | 65.280 | 100 | 0.388 | 140 | 0.943 | 90 | 2.822 |
| 110 | 65.000 | 110 | 0.392 | 160 | 0.934 | 95 | 2.680 |
| 120 | 64.730 | 120 | 0.396 | 180 | 0.925 | 100 | 2.548 |
| 130 | 64.450 | 130 | 0.399 | 200 | 0.916 | 105 | 2.424 |
| 140 | 64.169 | 140 | 0.403 | 220 | 0.907 | 110 | 2.308 |
| 150 | 63.890 | 150 | 0.407 | 240 | 0.898 | 115 | 2.200 |
| 160 | 63.620 | 160 | 0.411 | 260 | 0.890 | 120 | 2.098 |
| 170 | 63.340 | 170 | 0.414 | 280 | 0.881 | 125 | 2.003 |
| 180 | 63.060 | 180 | 0.418 | 300 | 0.872 | 130 | 1.914 |
| 190 | 62.780 | 190 | 0.422 | 320 | 0.863 | 135 | 1.830 |
| 200 | 62.510 | 200 | 0.425 | 340 | 0.854 | 140 | 1.751 |
| 210 | 62.230 | 210 | 0.429 | 360 | 0.845 | 145 | 1.676 |
| | | 220 | 0.433 | 380 | 0.836 | 150 | 1.606 |
| | | 230 | 0.437 | | | 155 | 1.540 |
| | | 240 | 0.440 | | | 160 | 1.478 |
| | | 250 | 0.444 | | | 165 | 1.419 |
| | | 260 | 0.448 | | | 170 | 1.363 |
| | | | | | | 175 | 1.311 |
| | | | | | | 180 | 1.261 |
| | | | | | | 185 | 1.214 |
| | | | | | | 190 | 1.169 |
| | | | | | | 195 | 1.126 |

| 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 |
| 60 | 0.001 | 130 | 0.005 | 130 | 0.00013 | 100 | 0.285 |
| | | 140 | 0.007 | 140 | 0.00018 | 120 | 0.293 |
| | | 150 | 0.010 | 150 | 0.00025 | 140 | 0.300 |
| | | 160 | 0.014 | 160 | 0.00034 | 160 | 0.307 |
| | | 170 | 0.019 | 170 | 0.00047 | 180 | 0.314 |
| | | 180 | 0.026 | 180 | 0.00063 | 200 | 0.322 |
| | | 190 | 0.036 | 190 | 0.00085 | 220 | 0.329 |
| | | 200 | 0.048 | 200 | 0.00112 | 240 | 0.336 |
| | | 210 | 0.064 | 210 | 0.00148 | 260 | 0.343 |
| | | 220 | 0.085 | 220 | 0.00193 | 280 | 0.350 |
| | | 230 | 0.111 | 230 | 0.00249 | 300 | 0.358 |
| | | 240 | 0.145 | 240 | 0.00320 | 320 | 0.365 |
| | | 250 | 0.187 | 250 | 0.00407 | 340 | 0.372 |
| | | 260 | 0.240 | 260 | 0.00515 | 360 | 0.379 |
| | | 270 | 0.306 | 270 | 0.00648 | 380 | 0.387 |
| | | 280 | 0.387 | 280 | 0.00809 | 400 | 0.394 |
| | | 290 | 0.487 | 290 | 0.01005 | 420 | 0.401 |
| | | 300 | 0.609 | 300 | 0.01240 | 440 | 0.408 |
| | | 310 | 0.757 | 310 | 0.01522 | 460 | 0.415 |
| | | 320 | 0.936 | 320 | 0.01857 | 480 | 0.423 |
| | | 330 | 1.152 | 330 | 0.02255 | 500 | 0.430 |
| | | 340 | 1.409 | 340 | 0.02724 | 520 | 0.437 |
| | | 350 | 1.715 | 350 | 0.03276 | 540 | 0.444 |
| | | 360 | 2.078 | 360 | 0.03920 | 560 | 0.452 |
| | | 370 | 2.506 | 370 | 0.04670 | 580 | 0.459 |
| | | 380 | 3.008 | 380 | 0.05540 | 600 | 0.466 |