

DIMETHYL SUCCINATE

DSE

| CAUTIONARY RESPONSE INFORMATION | | | 4. FIRE HAZARDS | 7. SHIPPING INFORMATION |
|--|---|--|--|--|
| Common Synonyms | Liquid | Colorless | <p>4.1 Flash Point: 185°F C.C.</p> <p>4.2 Flammable Limits in Air: LEL 1%; UEL 8.5%</p> <p>4.3 Fire Extinguishing Agents: Carbon dioxide, dry chemical, alcohol foam.</p> <p>4.4 Fire Extinguishing Agents Not to be Used: Currently not available</p> <p>4.5 Special Hazards of Combustion Products: Currently not available</p> <p>4.6 Behavior in Fire: Currently not available</p> <p>4.7 Auto Ignition Temperature: 689°F (365°C)</p> <p>4.8 Electrical Hazards: Currently not available</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: 30.9 (calc.)</p> <p>4.12 Flame Temperature: Currently not available</p> <p>4.13 Combustion Molar Ratio (Reactant to Product): 11.0 (calc.)</p> <p>4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed</p> | <p>7.1 Grades of Purity: 99%</p> <p>7.2 Storage Temperature: Ambient</p> <p>7.3 Inert Atmosphere: Currently not available</p> <p>7.4 Venting: Currently not available</p> <p>7.5 IMO Pollution Category: C</p> <p>7.6 Ship Type: 3</p> <p>7.7 Barge Hull Type: Currently not available</p> |
| Keep people away. Call fire department. Avoid contact with liquid. Notify local health and pollution control agencies. Protect water intakes. | Fire | Combustible Water may be ineffective on fire. Wear self-contained breathing apparatus. Extinguish with dry chemical, alcohol foam, or CO ₂ . | | 8. HAZARD CLASSIFICATIONS |
| Exposure | CALL FOR MEDICAL AID. VAPOR May be irritating. Move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. LIQUID May be irritating. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. | | <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> | 9. PHYSICAL & CHEMICAL PROPERTIES |
| 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. | | <p>9.1 Physical State at 15°C and 1 atm: Solid</p> <p>9.2 Molecular Weight: 146.14</p> <p>9.3 Boiling Point at 1 atm: 392°F = 200°C = 473.2°K</p> <p>9.4 Freezing Point: 64.4-66.2°F = 18-19°C = 291.2-292.2°K</p> <p>9.5 Critical Temperature: Currently not available</p> <p>9.6 Critical Pressure: Currently not available</p> <p>9.7 Specific Gravity: 1.117</p> <p>9.8 Liquid Surface Tension: Currently not available</p> <p>9.9 Liquid Water Interfacial Tension: Currently not available</p> <p>9.10 Vapor (Gas) Specific Gravity: 5.04</p> <p>9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available</p> <p>9.12 Latent Heat of Vaporization: Currently not available</p> <p>9.13 Heat of Combustion: Currently not available</p> <p>9.14 Heat of Decomposition: Currently not available</p> <p>9.15 Heat of Solution: Currently not available</p> <p>9.16 Heat of Polymerization: Currently not available</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: Currently not available</p> | 5. CHEMICAL REACTIVITY |
| 1. CORRECTIVE RESPONSE ACTIONS Stop discharge Collection Systems: Dredge | 2. CHEMICAL DESIGNATIONS 2.1 CG Compatibility Group: 34; Esters 2.2 Formula: CH ₂ O ₂ CCH ₂ CH ₂ CO ₂ CH ₃ 2.3 IMO/UN Designation: Currently not available 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: 106-65-0 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51385 | | 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: Currently not available 6.5 GESAMP Hazard Profile: Bioaccumulation: 0 Damage to living resources: 2 Human Oral hazard: 0 Human Contact hazard: I Reduction of amenities: 0 | NOTES |
| 3.1 Personal Protective Equipment: Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. 3.2 Symptoms Following Exposure: May be harmful by inhalation, ingestion or skin absorption. May cause irritation. 3.3 Treatment of Exposure: INHALATION: Call for medical aid. Remove the victim to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen. SKIN: Wash with soap and copious amounts of water. EYES: Flush with copious amounts of water for at least 15 minutes. 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: 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 skin. 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 AEGL: 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 |
| 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 | | 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 |

| 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 |
| C U R R E N T L Y N O T A V A I L A B L E | 68 | 0.006 | | C U R R E N T L Y N O T A V A I L A B L E | 0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375 400 425 450 475 500 525 550 575 600 | 0 25 50 75 100 125 150 175 200 225 250 275 300 325 350 375 400 425 450 475 500 525 550 575 600 | 0.225 0.233 0.242 0.250 0.258 0.267 0.275 0.283 0.291 0.298 0.306 0.314 0.321 0.328 0.336 0.343 0.350 0.357 0.364 0.370 0.377 0.383 0.389 0.396 0.402 |