2,2-DIMETHYLOCTANOIC ACID

DMO

CAUTIONARY RESPONSE INFORMATION

Common Synonyms			
2,2-Dimethylcaprylic acid	Liquid Floats on water.	Colorless	Burning, rancid odor

Keep people away. Avoid contact with liquid or vapor.
Avoid inhalation.
Wear self-contained breathing apparatus and full protective clothing.
Call fire department.
Notify local health and pollution control agencies.
Protect water intakes.

Fire

Combustible
Wear self-contained breathing apparatus and full protective clothing.
Extinguish with CO_2, dry chemical, foam, or water spray.

Exposure

CALL FOR MEDICAL AID

VAPOR
Harmful if inhaled or skin is exposed.
Irritating to the eyes, nose, and throat.
Move victim to fresh air.
If breathing has stopped, give artificial respiration.
If breathing is difficult, give oxygen.

LIQUID
Harmful if swallowed or absorbed through the skin.
Irritating to the eyes and skin.
Remove contaminated clothing and shoes, flush affected areas with plenty of water.
IF IN EYES: hold eyelids open, flush with plenty of water for at least 15 minutes.
IF SWALLOWED: do nothing except keep victim warm.
DO NOT INDUCE VOMITING

Water Pollution

Effects of low concentrations on aquatic life are not known.
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
Chemical and Physical Treatment:
Neutralize

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: 4; Organic acids
2.2 Formula: $CH_3(CH_2)_5C(CH_3)_2CO_2H$
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: 51377

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Approved respirator, chemical resistant gloves, chemical safety gloves, other protective clothing.
3.2 Symptoms Following Exposure: Irritating to the eyes, nose, throat, upper respiratory tract, and skin. Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.
3.3 Treatment of Exposure: INHALATION: Remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. EYES: Hold eyelids open, flush with running water for at least 15 minutes. SKIN: Remove contaminated clothing and shoes, flush affected areas with plenty of water. INGESTION: Do nothing except keep victim warm. DO NOT INDUCE VOMITING. Call a physician.
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 severe irritation of the eyes and throat and can cause eye and lung injury. They cannot be tolerated even at low concentrations.
3.11 Liquid or Solid Characteristics: Severe skin irritant. Causes second and third degree burns on short contact and is very injurious to the eyes.
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

4. FIRE HAZARDS

4.1 Flash Point: Currently not available
4.2 Flammable Limits in Air: Currently not available
4.3 Fire Extinguishing Agents: CO_2, dry chemical, foam, or water spray.
4.4 Fire Extinguishing Agents Not to Be Used: Currently not available
4.5 Special Hazards of Combustion Products: Currently not available
4.6 Behavior in Fire: Currently not available
4.7 Auto Ignition Temperature: Currently not available
4.8 Electrical Hazards: Currently not available
4.9 Burning Rate: Currently not available
4.10 Adiabatic Flame Temperature: Currently not available
4.11 Stoichometric Air to Fuel Ratio: 66.6 (calc.)
4.12 Flame Temperature: Currently not available
4.13 Combustion Molar Ratio (Reactant to Product): 20.0 (calc.)
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: Caustic soda, soda ash, lime
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: Currently not available
6.5 GESAMP Hazard Profile: Not listed

7. SHIPPING INFORMATION

7.1 Grades of Purity: Currently not available
7.2 Storage Temperature: Currently not available
7.3 Inert Atmosphere: None
7.4 Venting: None
7.5 IMO Pollution Category: C
7.6 Ship Type: 3
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: Liquid
9.2 Molecular Weight: 174.3
9.3 Boiling Point at 1 atm: Currently not available
9.4 Freezing Point: Currently not available
9.5 Critical Temperature: Currently not available
9.6 Critical Pressure: Currently not available
9.7 Specific Gravity: Currently not available
9.8 Liquid Surface Tension: Currently not available
9.9 Liquid Water Interfacial Tension: Currently not available
9.10 Vapor (Gas) Specific Gravity: 6.0
9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available
9.12 Latent Heat of Vaporization: Currently not available
9.13 Heat of Combustion: Currently not available
9.14 Heat of Decomposition: Currently not available
9.15 Heat of Solution: Currently not available
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: Currently not available

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
	CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE

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
	CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE	0	0.320
						25	0.332
						50	0.343
						75	0.354
						100	0.365
						125	0.377
						150	0.388
						175	0.399
						200	0.410
						225	0.422
						250	0.433
						275	0.444
						300	0.455
						325	0.467
						350	0.478
						375	0.489
						400	0.500
						425	0.512
						450	0.523
						475	0.534
						500	0.545
						525	0.556
						550	0.568
						575	0.579
						600	0.590