

# TRIMETHYLACETIC ACID

TAA

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> alpha, alpha-Dimethyl-propionic acid Neopentanoic acid Pivalic acid Propanoic acid, 2,2-di-methyl-	Solid Colored  Floats on and slowly mixes with water.
<p>Keep people away. Avoid contact with solid and dust. Wear self-contained positive pressure breathing apparatus and full protective clothing. Shut off ignition sources and call fire department. Notify local health and pollution control agencies. Protect water intakes.</p>	
<b>Fire</b>	<p>COMBUSTIBLE. Produces vapors irritating to eyes and skin. Extinguish small fires: dry chemical, CO<sub>2</sub>, water spray or foam; large fires: water spray, fog or foam.</p>
<b>Exposure</b>	<p>CALL FOR MEDICAL AID.</p> <p>SOLID Irritating to eyes and skin. Harmful if swallowed. IF IN EYES OR ON SKIN, flush with running water for at least 15 minutes; hold eyelids open if necessary. Wash skin with soap and water. Remove and isolate contaminated clothing and shoes at the site. If SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.</p>
<b>Water Pollution</b>	<p>Dangerous to aquatic life in high concentrations. May be dangerous if it enter water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.</p>

<b>1. CORRECTIVE RESPONSE ACTIONS</b> Dilute and disperse Stop discharge Chemical and Physical Treatment: Neutralize	<b>2. CHEMICAL DESIGNATIONS</b> 2.1 CG Compatibility Group: 4; Organic acids 2.2 Formula: (CH <sub>3</sub> ) <sub>3</sub> CCOOH 2.3 IMO/UN Designation: Not listed 2.4 DOT ID No.: Not listed 2.5 CAS Registry No.: 75-98-9 2.6 NAERG Guide No.: Not listed 2.7 Standard Industrial Trade Classification: 51377
<b>3. HEALTH HAZARDS</b>	
<p>3.1 Personal Protective Equipment: Wear self-contained positive breathing apparatus and full protective clothing.</p> <p>3.2 Symptoms Following Exposure: Because of low volatility, it is relatively harmless when inhaled at normal ambient temperature (around 20°C). It is slightly toxic by ingestion or skin absorption. The vapor is irritating at elevated temperatures. Can cause considerable discomfort by oral routes; may cause reversible or irreversible changes to exposed tissue, not permanent injury or death.</p> <p>3.3 Treatment of Exposure: INHALATION: Remove victim to fresh air, get medical attention if irritation persists. EYES: Hold eyelids open and flush with plenty of water for at least 15 minutes and get medical attention. SKIN: Contaminated skin should be washed with soap and water.</p> <p>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<sub>50</sub> = 900 mg/kg (rat) 3.8 Toxicity by Inhalation: Currently not available. 3.9 Chronic Toxicity: Tumorigenic in animal studies (mouse). 3.10 Vapor (Gas) Irritant Characteristics: At elevated temperatures, vapor is irritating to eyes and skin. 3.11 Liquid or Solid Characteristics: Solid is irritating to eyes and 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</p>	

## 4. FIRE HAZARDS

- 4.1 Flash Point: 147.2°F C.C.  
4.2 Flammable Limits in Air: Currently not available  
4.3 Fire Extinguishing Agents: Small fires: dry chemical, CO<sub>2</sub>, water spray or foam; large fires: water spray, fog or foam.  
4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent  
4.5 Special Hazards of Combustion Products: Contain acrid smoke and fumes.  
4.6 Behavior in Fire: Decomposes to produce acrid smoke and fumes.  
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 Stoichiometric Air to Fuel Ratio: 30.9 (calc.)  
4.12 Flame Temperature: Currently not available  
4.13 Combustion Molar Ratio (Reactant to Product): 10.0 (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: Currently not available  
5.3 Stability During Transport: Stable  
5.4 Neutralizing Agents for Acids and Caustics: Cover contaminated surfaces with soda ash or sodium bicarbonate; add water to form slurry. Remove slurry and rinse area with soda ash solution.  
5.5 Polymerization: Not pertinent  
5.6 Inhibitor of Polymerization: Not pertinent

## 6. WATER POLLUTION

- 6.1 Aquatic Toxicity:  
400-357 mg/l (pH 5)/ 24-96 hr/goldfish/LD<sub>50</sub> 4.5 g/l (pH 7)/ 24 hr/goldfish/LD<sub>50</sub>  
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: 1  
Human Oral hazard: 1  
Human Contact hazard: 1  
Reduction of amenities: X

## 7. SHIPPING INFORMATION

- 7.1 Grades of Purity: 99%  
7.2 Storage Temperature: Currently not available  
7.3 Inert Atmosphere: Currently not available  
7.4 Venting: Currently not available  
7.5 IMO Pollution Category: D  
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: Solid  
9.2 Molecular Weight: 102.13  
9.3 Boiling Point at 1 atm: 325-327°F = 163-164°C = 436-437°K  
9.4 Freezing Point: 91-95°F = 33-35°C = 306-308°K  
9.5 Critical Temperature: Currently not available  
9.6 Critical Pressure: Currently not available  
9.7 Specific Gravity: 0.905 at 50°C  
9.8 Liquid Surface Tension: Not pertinent  
9.9 Liquid Water Interfacial Tension: Not pertinent  
9.10 Vapor (Gas) Specific Gravity: 3.5 (est.)  
9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent  
9.12 Latent Heat of Vaporization: Currently not available  
9.13 Heat of Combustion: Currently not available  
9.14 Heat of Decomposition: Not pertinent  
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
122	56.500		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
77	2.500		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