

2,6-DIMETHYLANILINE

DMM

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Aminodimethylbenzene Aniline, 2,6-dimethyl NCL-C56188 2,6-Xylydine o-Xylydine 2,6-Xylylamine		Liquid Pale Yellow Floats; sparingly soluble in water
Keep people away. Shut off ignition sources and call fire department. Avoid contact with liquid. Notify local health and pollution agencies. Protect water intakes.		
Fire	Combustible. POISONOUS GASES MAY BE PRODUCED IN FIRE. Water may be ineffective on fire. Wear full-face self-contained breathing apparatus and full protective clothing including rubber boots and heavy rubber gloves. Extinguish with dry chemical, alcohol foam or carbon dioxide. Cool exposed containers with water.	
Exposure	CALL FOR MEDICAL AID. VAPOR/MIST Poisonous if inhaled. Irritating to eyes, nose and throat. Move the victim to fresh air. IF IN EYES, hold the eyes open and flush with plenty of water. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. LIQUID Irritating to skin and eyes. If swallowed will cause nausea, dizziness and headaches. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water.	
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.	

1. CORRECTIVE RESPONSE ACTIONS

Stop discharge
 Contain
 Collection Systems: Skim
 Do not burn
 Clean shore line

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** 9; Aromatic amines
 2.2 **Formula:** (CH₃)₂C₆H₄NH₂
 2.3 **IMO/UN Designation:** 6.1/1711
 2.4 **DOT ID No.:** 1711
 2.5 **CAS Registry No.:** 87-62-7
 2.6 **NAERG Guide No.:** 153
 2.7 **Standard Industrial Trade Classification:** 51454

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Wear self-contained breathing apparatus, rubber boots, heavy rubber gloves and protective clothing.
- 3.2 **Symptoms Following Exposure:** May be fatal if inhaled, swallowed or absorbed through skin. Vapor or mist irritating to the eyes, mucous membranes and upper respiratory tract; causes skin irritation. Absorption into body leads to the formation of methemoglobin which, in sufficient concentration, may cause cyanosis. Onset may be delayed 2-4 hours or longer. Exposure can cause nausea, dizziness, headache, damage to the eyes, and blood effects.
- 3.3 **Treatment of Exposure:** INHALATION: Call for medical help. Remove the victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. EYES: Immediately flush with copious amounts of water for 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. SKIN: Immediately flush with copious amounts of water for 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:** Grade 2; LD₅₀ = 707 mg/kg (mouse)
 3.8 **Toxicity by Inhalation:** Currently not available.
 3.9 **Chronic Toxicity:** Possible carcinogen
 3.10 **Vapor (Gas) Irritant Characteristics:** Vapors are moderately irritating such that personnel will not usually tolerate moderate or high concentrations.
 3.11 **Liquid or Solid Characteristics:** Fairly severe skin irritant. May cause pain and second-degree burns after a few minutes' contact.
 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:** 196°F C.C.
 4.2 **Flammable Limits in Air:** Currently not available
 4.3 **Fire Extinguishing Agents:** Water spray, carbon dioxide, dry chemical, alcohol foam.
 4.4 **Fire Extinguishing Agents Not to Be Used:** Water may be ineffective.
 4.5 **Special Hazards of Combustion Products:** Container explosion may occur under fire conditions. Emits toxic fumes under fire conditions.
 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 **Stoichiometric Air to Fuel Ratio:** 51.2 (calc.)
 4.12 **Flame Temperature:** Currently not available
 4.13 **Combustion Molar Ratio (Reactant to Product):** 12.5 (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:** Currently not available
 5.5 **Polymerization:** Currently not available
 5.6 **Inhibitor of Polymerization:** Currently not available

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:** 99%
 7.2 **Storage Temperature:** Ambient
 7.3 **Inert Atmosphere:** Currently not available
 7.4 **Venting:** Currently not available
 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:** Poison
 8.2 **49 CFR Class:** 6.1
 8.3 **49 CFR Package Group:** II
 8.4 **Marine Pollutant:** No
 8.5 **NFPA Hazard Classification:**
- | Category | Classification |
|---------------------------|----------------|
| Health Hazard (Blue)..... | 3 |
| Flammability (Red)..... | 1 |
| Instability (Yellow)..... | 0 |
- 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:** 121.18
 9.3 **Boiling Point at 1 atm:** 417.2°F = 214°C = 487.2°K (at 739 mm Hg = .972 atm)
 9.4 **Freezing Point:** 50-53.6°F = 10-12°C = 283-285°K
 9.5 **Critical Temperature:** Currently not available
 9.6 **Critical Pressure:** Currently not available
 9.7 **Specific Gravity:** 0.984
 9.8 **Liquid Surface Tension:** Currently not available
 9.9 **Liquid Water Interfacial Tension:** Currently not available
 9.10 **Vapor (Gas) Specific Gravity:** 4.18
 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:** Currently not available
 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
	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
	S L I G H T L Y S O L U B L E	68	0.000		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	0.262 0.276 0.289 0.303 0.316 0.329 0.342 0.354 0.367 0.379 0.391 0.403 0.415 0.427 0.438 0.449 0.461 0.472 0.482 0.493 0.503 0.514 0.524 0.534 0.544