

N-PROPYLBENZENE

PBZ

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Benzene, propyl Isocumene 1-Phenylpropane UN 2364 (DOT)		Liquid	Light yellow
<p>Keep people away. Avoid contact with liquid and vapor. EVACUATE AREA. Wear full face self-contained breathing apparatus and protective clothing. Shut off ignition sources. Call fire department. Stay upwind and use water spray to "knock down" vapor. Notify local health and pollution control agencies. Protect water intakes.</p>			
Fire	Combustible. Flashback along vapor trail may occur. Vapor may explode if ignited in an enclosed area. Water may be ineffective on fire. Wear full face self-contained breathing apparatus, and full protective clothing including rubber boots and gloves. Extinguish with dry chemical, alcohol foam, or CO ₂ . Cool exposed containers with water.		
Exposure	CALL FOR MEDICAL AID. VAPOR May be irritating to eyes, nose and throat. If inhaled, will cause dizziness or difficult breathing. Move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. LIQUID May be irritating to skin and eyes. May be 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.		
Water Pollution	Effect of low concentration 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
 Clean shore line
 Salvage waterfowl

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** 32; Aromatic hydrocarbons
 2.2 **Formula:** C₉H₁₀
 2.3 **IMO/UN Designation:** 3.3/2364
 2.4 **DOT ID No.:** 2364
 2.5 **CAS Registry No.:** 103-65-1
 2.6 **NAERG Guide No.:** 127
 2.7 **Standard Industrial Trade Classification:** 51129

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** 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 eye and skin 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:** Grade 1; LD₅₀ = 6.04 g/kg rat
 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

4. FIRE HAZARDS

- 4.1 **Flash Point:** 118°F C.C.
 4.2 **Flammable Limits in Air:** LEL 0.8%; UEL 6%
 4.3 **Fire Extinguishing Agents:** Water spray, carbon dioxide, dry chemical, alcohol foam.
 4.4 **Fire Extinguishing Agents Not to Be Used:** Currently not available
 4.5 **Special Hazards of Combustion Products:** Vapor may travel considerable distance to a source of ignition and flashback.
 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:** 57.1 (calc.)
 4.12 **Flame Temperature:** Currently not available
 4.13 **Combustion Molar Ratio (Reactant to Product):** 15.0 (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:** Not pertinent
 5.5 **Polymerization:** Will not occur
 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:** 98%
 7.2 **Storage Temperature:** Ambient
 7.3 **Inert Atmosphere:** Currently not available
 7.4 **Venting:** Currently not available
 7.5 **IMO Pollution Category:** A
 7.6 **Ship Type:** 3
 7.7 **Barge Hull Type:** Currently not available

8. HAZARD CLASSIFICATIONS

- 8.1 **49 CFR Category:** Flammable Liquid
 8.2 **49 CFR Class:** 3
 8.3 **49 CFR Package Group:** III
 8.4 **Marine Pollutant:** No
 8.5 **NFPA Hazard Classification:**
- | Category | Classification |
|----------------------|----------------|
| Health Hazard (Blue) | 2 |
| Flammability (Red) | 3 |
| 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:** 120.20
 9.3 **Boiling Point at 1 atm:** 318.2°F = 159°C = 432.2°K
 9.4 **Freezing Point:** -146.2°F = -99°C = 174.2°K
 9.5 **Critical Temperature:** Currently not available
 9.6 **Critical Pressure:** Currently not available
 9.7 **Specific Gravity:** 0.862
 9.8 **Liquid Surface Tension:** Currently not available
 9.9 **Liquid Water Interfacial Tension:** Currently not available
 9.10 **Vapor (Gas) Specific Gravity:** 4.14
 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:** 0.1455 psia

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
68	0.006	43	0.019		C	0	0.260
		68	0.039		U	25	0.275
		88	0.097		R	50	0.289
		100	0.141		R	75	0.303
		110	0.193		E	100	0.317
		134	0.387		N	125	0.331
		161	0.774		T	150	0.344
		178	1.160		L	175	0.357
		201	1.934		Y	200	0.370
		236	3.867			225	0.383
		276	7.735		N	250	0.395
		319	14.696		O	275	0.407
					T	300	0.419
						325	0.431
					A	350	0.443
					V	375	0.454
					A	400	0.465
					I	425	0.476
					L	450	0.487
					A	475	0.497
					B	500	0.507
					L	525	0.517
					E	550	0.527
						575	0.537
						600	0.546