

NEOHEXANE

NHX

CAUTIONARY RESPONSE INFORMATION

Common Synonyms 2,2-Dimethylbutane		Liquid	Colorless	Gasoline-like odor
Floats on water. Flammable, irritating vapor is produced.				
<p>Evacuate. Keep people away. Shut off ignition sources. Call fire department. Notify local health and pollution control agencies. Protect water intakes.</p>				
Fire	<p>FLAMMABLE. Containers may explode in fire. Flashback along vapor trail may occur. Vapor may explode if ignited in an enclosed area. Extinguish with dry chemicals, foam or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.</p>			
Exposure	<p>Call for medical aid.</p> <p>VAPOR Irritating to eyes, nose and throat. If inhaled will cause dizziness, coughing, or difficult breathing. Move victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.</p> <p>LIQUID Irritating to skin and eyes. If swallowed will cause nausea, or vomiting. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk. DO NOT INDUCE VOMITING.</p>			
Water Pollution	<p>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 or nearby water intakes.</p>			

1. CORRECTIVE RESPONSE ACTIONS

Dilute and disperse
 Stop discharge
 Contain
 Collection Systems: Skim
 Pump or dredge sediment if contaminated
 Chemical and Physical Treatment: Burn;
 Absorb

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** Not listed.
 2.2 **Formula:** CH₃(CH₂)₂CH₂CH₃
 2.3 **IMO/UN Designation:** 3.1/1208
 2.4 **DOT ID No.:** 1208
 2.5 **CAS Registry No.:** 75-83-2
 2.6 **NAERG Guide No.:** 128
 2.7 **Standard Industrial Trade Classification:** 51114

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Air-supplied apparatus or organic vapor cartridge; goggles or face shield; rubber gloves.
- 3.2 **Symptoms Following Exposure:** Inhalation causes dizziness, nausea, and vomiting; concentrated vapor may cause unconsciousness and collapse. Contact with liquid causes irritation of eyes; repeated contact may produce irritation of skin. Ingestion causes irritation of stomach. Aspiration causes severe lung irritation, rapidly developing pulmonary edema, and central nervous system excitement followed by depression.
- 3.3 **Treatment of Exposure:** INHALATION: remove from exposure; if breathing has stopped, begin artificial respiration; call a physician. EYES: flush with water for 15 min.; call physician if needed. SKIN: flush well with water, then wash with soap and water. INGESTION: do NOT induce vomiting; guard against aspiration into lungs; call a doctor. ASPIRATION: enforce bed rest; give oxygen; get medical attention.
- 3.4 **TLV-TWA:** 500 ppm
 3.5 **TLV-STEL:** 1,000 ppm
 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:** None
 3.10 **Vapor (Gas) Irritant Characteristics:** Currently not available
 3.11 **Liquid or Solid Characteristics:** Currently not available
 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:** -54°F C.C.
 4.2 **Flammable Limits in Air:** 1.2%-7.7%
 4.3 **Fire Extinguishing Agents:** Dry chemical, foam, carbon dioxide
 4.4 **Fire Extinguishing Agents Not to Be Used:** Water may be ineffective.
 4.5 **Special Hazards of Combustion Products:** Not pertinent
 4.6 **Behavior in Fire:** Not pertinent
 4.7 **Auto Ignition Temperature:** 797°F
 4.8 **Electrical Hazards:** Currently not available
 4.9 **Burning Rate:** 9.2 mm/min.
 4.10 **Adiabatic Flame Temperature:** Currently not available
 4.11 **Stoichiometric Air to Fuel Ratio:** 45.2 (calc.)
 4.12 **Flame Temperature:** Currently not available
 4.13 **Combustion Molar Ratio (Reactant to Product):** 13.0 (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:** 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:** None
 6.5 **GESAMP Hazard Profile:** Not listed

7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Research: 99.98%; Pure: 99.5%; Technical: 96.4%
 7.2 **Storage Temperature:** Ambient
 7.3 **Inert Atmosphere:** No requirement
 7.4 **Venting:** Open (flame arrester)
 7.5 **IMO Pollution Category:** Currently not available
 7.6 **Ship Type:** Currently not available
 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:** II
 8.4 **Marine Pollutant:** No
 8.5 **NFPA Hazard Classification:**
- | Category | Classification |
|---------------------------|----------------|
| Health Hazard (Blue)..... | 1 |
| 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:** 86.2
 9.3 **Boiling Point at 1 atm:** 121.5°F = 49.7°C = 322.9°K
 9.4 **Freezing Point:** -147.8°F = -99.9°C = 173.3°K
 9.5 **Critical Temperature:** 420.1°F = 215.6°C = 488.8°K
 9.6 **Critical Pressure:** 447 psia = 30.4 atm = 3.08 MN/m²
 9.7 **Specific Gravity:** 0.649 at 20°C (liquid)
 9.8 **Liquid Surface Tension:** 16.3 dynes/cm = 0.0163 N/m at 20°C
 9.9 **Liquid Water Interfacial Tension:** (est.) 35 dynes/cm = 0.035 N/m at 20°C
 9.10 **Vapor (Gas) Specific Gravity:** 3.0
 9.11 **Ratio of Specific Heats of Vapor (Gas):** 1.064 at 16°C
 9.12 **Latent Heat of Vaporization:** 131 Btu/lb = 72.9 cal/g = 3.05 X 10⁵ J/kg
 9.13 **Heat of Combustion:** -19,310 Btu/lb = -10,730 cal/g = -448.9 X 10⁵ J/kg
 9.14 **Heat of Decomposition:** Not pertinent
 9.15 **Heat of Solution:** Not pertinent
 9.16 **Heat of Polymerization:** Not pertinent
 9.17 **Heat of Fusion:** 1.61 cal/g
 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
34	41.690	34	0.502	72	0.705	34	0.457
36	41.620	36	0.503	74	0.702	36	0.451
38	41.550	38	0.504	76	0.700	38	0.446
40	41.480	40	0.505	78	0.698	40	0.440
42	41.410	42	0.507	80	0.696	42	0.435
44	41.340	44	0.508	82	0.693	44	0.430
46	41.270	46	0.509	84	0.691	46	0.425
48	41.210	48	0.510	86	0.689	48	0.420
50	41.140	50	0.511	88	0.687	50	0.415
52	41.070	52	0.512	90	0.684	52	0.410
54	41.000	54	0.513	92	0.682	54	0.405
56	40.930	56	0.514	94	0.680	56	0.400
58	40.860	58	0.515	96	0.678	58	0.396
60	40.790	60	0.517	98	0.676	60	0.391
62	40.720	62	0.518	100	0.673	62	0.387
64	40.650	64	0.519	102	0.671	64	0.383
66	40.580	66	0.520	104	0.669	66	0.379
68	40.510	68	0.521	106	0.667	68	0.374
70	40.440	70	0.522	108	0.664	70	0.370
72	40.370	72	0.523	110	0.662	72	0.366
74	40.300	74	0.524	112	0.660	74	0.362
76	40.230	76	0.525	114	0.658	76	0.359
78	40.170	78	0.527	116	0.655	78	0.355
80	40.100	80	0.528			80	0.351
82	40.030	82	0.529			82	0.347
84	39.960	84	0.530			84	0.344

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
	I	-20	0.443	-20	0.00809	0	0.346
	N	-10	0.619	-10	0.01105	10	0.352
	S	0	0.850	0	0.01485	20	0.358
	O	10	1.149	10	0.01965	30	0.364
	L	20	1.530	20	0.02561	40	0.370
	U	30	2.009	30	0.03294	50	0.377
	B	40	2.603	40	0.04183	60	0.383
	L	50	3.333	50	0.05252	70	0.389
	E	60	4.221	60	0.06522	80	0.395
		70	5.289	70	0.08018	90	0.401
		80	6.563	80	0.09765	100	0.407
		90	8.069	90	0.11790	110	0.414
		100	9.836	100	0.14110	120	0.420
		110	11.890	110	0.16760	130	0.426
		120	14.270	120	0.19770	140	0.432
		130	17.010	130	0.23160	150	0.438
		140	20.130	140	0.26950	160	0.445
						170	0.451
						180	0.457
						190	0.463
						200	0.469
						210	0.476
						220	0.482
						230	0.488
						240	0.494
						250	0.500