1-HEXANOL

HXN

CAUTIONARY RESPONSE INFORMATION

Common Synonyms
Amylcarbinol
n-Amylcarbinol
n-Hexanol
n-Hexyl alcohol
1-Hydroxyhexane

Clear liquid | Colorless | Sweet odor

Floats on water.

Keep people away.
Call fire department.
Avoid contact with liquid.
Notify local health and pollution control agencies.
Protect water intakes.

Fire

Combustible.
Extinguish with dry chemical, alcohol foam, or carbon dioxide.
Water may be ineffective on fire.

Exposure

CALL FOR MEDICAL AID.

LIQUID
Will burn eyes.
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.
IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk.

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
Chemical and Physical Treatment:
Absorb
Clean shore line
Salvage waterfowl

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: 20; Alcohol, glycol
2.2 Formula: $CH_3(CH_2)_4CH_2OH$
2.3 IMO/UN Designation: Not listed
2.4 DOT ID No.: 2282
2.5 CAS Registry No.: 111-27-3
2.6 NAERG Guide No.: 129
2.7 Standard Industrial Trade Classification: 51219

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Chemical gloves, chemical goggles.
3.2 Symptoms Following Exposure: Liquid causes eye burns and skin irritation. Breathing vapors is not expected to cause systemic illness.
3.3 Treatment of Exposure: In case of contact, immediately flush skin and eyes with plenty of water. Wash eyes at least 15 min. and get medical care.
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_{50} = 0.5 to 5 g/kg (rat)
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: Currently not available
3.10 Vapor (Gas) Irritant Characteristics: Currently not available
3.11 Liquid or Solid Characteristics: Causes smarting of the skin and first-degree burns on short exposure; may cause second-degree burns on long exposure.
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: 149°F O.C. 145°F C.C.
4.2 Flammable Limits in Air: 1.2%-7.7% (calc.)
4.3 Fire Extinguishing Agents: Alcohol foam, dry chemical, carbon dioxide
4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent
4.5 Special Hazards of Combustion Products: Not pertinent
4.6 Behavior in Fire: Not pertinent
4.7 Auto Ignition Temperature: 580°F (est.)
4.8 Electrical Hazards: Not pertinent
4.9 Burning Rate: Currently not available
4.10 Adiabatic Flame Temperature: Currently not available
4.11 Stoichometric Air to Fuel Ratio: 42.8 (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): 57%, 1-10 days
6.4 Food Chain Concentration Potential: None
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: 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: III
8.4 Marine Pollutant: No
8.5 NFPA Hazard Classification:

Category	Classification
Health Hazard (Blue).....	1
Flammability (Red).....	2
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: 102.18
9.3 Boiling Point at 1 atm: 314.8°F = 157.1°C = 430.3°K
9.4 Freezing Point: –48.3°F = –44.6°C = 228.6°K
9.5 Critical Temperature: 638.6°F = 337°C = 610.2°K
9.6 Critical Pressure: 485 psia = 33 atm = 3.34 MN/m^2
9.7 Specific Gravity: 0.850 at 20°C (liquid)
9.8 Liquid Surface Tension: 24.5 dynes/cm = 0.0245 N/m at 20°C
9.9 Liquid Water Interfacial Tension: 6.8 dynes/cm = 0.0068 N/m at 25°C
9.10 Vapor (Gas) Specific Gravity: Not pertinent
9.11 Ratio of Specific Heats of Vapor (Gas): 1.057
9.12 Latent Heat of Vaporization: 209 Btu/lb = 116 cal/g = 4.86 X 10^5 J/kg
9.13 Heat of Combustion: –16,810 Btu/lb = –9340 cal/g = –391.0 X 10^5 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: Currently not available
9.18 Limiting Value: Currently not available
9.19 Reid Vapor Pressure: 0.75 psia

NOTES

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9.20 SATURATED LIQUID DENSITY	
Temperature (degrees F)	Pounds per cubic foot
40	54.160
50	53.750
60	53.330
70	52.910
80	52.500
90	52.080
100	51.670
110	51.250
120	50.830
130	50.420
140	50.000
150	49.580
160	49.170
170	48.750
180	48.340
190	47.920
200	47.500
210	47.090

9.21 LIQUID HEAT CAPACITY	
Temperature (degrees F)	British thermal unit per pound-F
0	0.424
10	0.437
20	0.450
30	0.462
40	0.475
50	0.488
60	0.501
70	0.513
80	0.526
90	0.539
100	0.552
110	0.565
120	0.577
130	0.590
140	0.603
150	0.616
160	0.628
170	0.641
180	0.654
190	0.667
200	0.680
210	0.692
220	0.705
230	0.718
240	0.731

9.22 LIQUID THERMAL CONDUCTIVITY	
Temperature (degrees F)	British thermal unit inch per hour-square foot-F
30	1.059
35	1.056
40	1.054
45	1.051
50	1.048
55	1.045
60	1.042
65	1.039
70	1.037
75	1.034
80	1.031
85	1.028
90	1.025
95	1.023
100	1.020
105	1.017
110	1.014
115	1.011
120	1.009
125	1.006
130	1.003

9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Centipoise
35	0.950
40	0.860
45	0.781
50	0.710
55	0.647
60	0.590
65	0.540
70	0.494
75	0.453
80	0.417
85	0.383
90	0.353
95	0.326
100	0.301
105	0.279
110	0.258
115	0.240
120	0.223
125	0.207
130	0.193
135	0.180
140	0.168
145	0.157
150	0.147
155	0.138

9.24 SOLUBILITY IN WATER	
Temperature (degrees F)	Pounds per 100 pounds of water
34	0.772
36	0.764
38	0.757
40	0.749
42	0.741
44	0.733
46	0.726
48	0.718
50	0.710
52	0.702
54	0.694
56	0.687
58	0.679
60	0.671
62	0.663
64	0.656
66	0.648
68	0.640
70	0.632
72	0.624
74	0.617
76	0.609
78	0.601
80	0.593
82	0.586
84	0.578

9.25 SATURATED VAPOR PRESSURE	
Temperature (degrees F)	Pounds per square inch
70	0.418
80	0.510
90	0.618
100	0.744
110	0.890
120	1.058
130	1.250
140	1.469
150	1.718
160	1.998
170	2.313
180	2.665
190	3.057
200	3.492
210	3.974
220	4.505
230	5.088
240	5.727
250	6.425
260	7.184
270	8.009
280	8.902
290	9.867
300	10.910
310	12.030

9.26 SATURATED VAPOR DENSITY	
Temperature (degrees F)	Pounds per cubic foot
70	0.00751
80	0.00900
90	0.01071
100	0.01266
110	0.01488
120	0.01738
130	0.02019
140	0.02333
150	0.02682
160	0.03069
170	0.03496
180	0.03965
190	0.04479
200	0.05039
210	0.05649
220	0.06309
230	0.07023
240	0.07791
250	0.08617
260	0.09502
270	0.10450
280	0.11460
290	0.12530
300	0.13670
310	0.14870

9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	British thermal unit per pound-F
0	0.323
25	0.337
50	0.350
75	0.363
100	0.376
125	0.389
150	0.402
175	0.415
200	0.427
225	0.440
250	0.452
275	0.464
300	0.476
325	0.488
350	0.499
375	0.511
400	0.523
425	0.534
450	0.545
475	0.556
500	0.567
525	0.578
550	0.589
575	0.599
600	0.610