TRIDECANOL

TDN

CAUTIONARY RESPONSE INFORMATION

Common Synonyms			
Isotridecanol Isotridecyl alcohol Oxotridecyl alcohol 1-Tridecanol	Oily liquid Floats on water.	Colorless	Mild, pleasant odor

Call fire department.
Notify local health and pollution control agencies.

Fire	Combustible. Extinguish with dry chemical or alcohol foam. Water may be ineffective on fire. Cool exposed containers with water.
Exposure	Not harmful.
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
Clean shore line
Salvage waterfowl

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: 20; Alcohol, glycol
2.2 Formula: $C_{12}H_{25}CH_2OH$
2.3 IMO/UN Designation: Not listed
2.4 DOT ID No.: Not listed
2.5 CAS Registry No.: Currently not available
2.6 NAERG Guide No.: Not listed
2.7 Standard Industrial Trade Classification: 51219

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Synthetic rubber gloves; chemical goggles.
3.2 Symptoms Following Exposure: Inhalation hazard slight. Skin contact results in moderate irritation. Liquid contact with eyes causes severe irritation and possible eye damage.
3.3 Treatment of Exposure: EYES: promptly flush with clean water for at least 15 min. and see a physician. SKIN: wash exposed area with soap and water.
3.4 TLV-TWA: Not listed.
3.5 TLV-STEL: Not listed.
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: Currently not available
3.10 Vapor (Gas) Irritant Characteristics: Vapors are nonirritating to the eyes and throat.
3.11 Liquid or Solid Characteristics: No appreciable hazard. Practically harmless to the 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: 250°F O.C.
4.2 Flammable Limits in Air: Currently not available
4.3 Fire Extinguishing Agents: Alcohol foam, dry chemical, water fog
4.4 Fire Extinguishing Agents Not to Be Used: Water or foam may cause frothing.
4.5 Special Hazards of Combustion Products: Not pertinent
4.6 Behavior in Fire: Not pertinent
4.7 Auto Ignition Temperature: Currently not available
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: 92.8 (calc.)
4.12 Flame Temperature: Currently not available
4.13 Combustion Molar Ratio (Reactant to Product): 27.0 (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:
Bioaccumulation: 0
Damage to living resources: 0
Human Oral hazard: 0
Human Contact hazard: 0
Reduction of amenities: X

7. SHIPPING INFORMATION

7.1 Grades of Purity: Mixed isomers; 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: 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:

Category	Classification
Health Hazard (Blue).....	0
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: 200.37
9.3 Boiling Point at 1 atm: 525°F = 274°C = 547°K
9.4 Freezing Point: Not pertinent
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Not pertinent
9.7 Specific Gravity: 0.846 at 20°C (liquid)
9.8 Liquid Surface Tension: (est.) 30 dynes/cm = 0.03 N/m at 20°C
9.9 Liquid Water Interfacial Tension: (est.) 30 dynes/cm = 0.03 N/m at 20°C
9.10 Vapor (Gas) Specific Gravity: Not pertinent
9.11 Ratio of Specific Heats of Vapor (Gas): 1.027
9.12 Latent Heat of Vaporization: 120 Btu/lb = 64 cal/g = 2.7 X 10^5 J/kg
9.13 Heat of Combustion: (est.) –12,200 Btu/lb = –6,790 cal/g = –284 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: Low

NOTES

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9.20 SATURATED LIQUID DENSITY	
Temperature (degrees F)	Pounds per cubic foot
35	53.730
40	53.590
45	53.450
50	53.310
55	53.170
60	53.030
65	52.890
70	52.750
75	52.620
80	52.480
85	52.340
90	52.200
95	52.060

9.21 LIQUID HEAT CAPACITY	
Temperature (degrees F)	British thermal unit per pound-F
85	0.565
90	0.573
95	0.581
100	0.589
105	0.597
110	0.605
115	0.613
120	0.621
125	0.629
130	0.637
135	0.645
140	0.654
145	0.662
150	0.670

9.22 LIQUID THERMAL CONDUCTIVITY	
Temperature (degrees F)	British thermal unit inch per hour-square foot-F
68	1.109
69	1.109
70	1.109
71	1.109
72	1.109
73	1.109
74	1.109
75	1.109
76	1.109
77	1.109
78	1.109
79	1.109
80	1.109
81	1.109
82	1.109
83	1.109
84	1.109
85	1.109

9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Centipoise
68	50.000

9.24 SOLUBILITY IN WATER	
Temperature (degrees F)	Pounds per 100 pounds of water
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9.25 SATURATED VAPOR PRESSURE	
Temperature (degrees F)	Pounds per square inch
260	0.070
280	0.131
300	0.232
320	0.393
340	0.637
360	0.996
380	1.507
400	2.214
420	3.167
440	4.425
460	6.051
480	8.116
500	10.690
520	13.870
540	17.720
560	22.330

9.26 SATURATED VAPOR DENSITY	
Temperature (degrees F)	Pounds per cubic foot
260	0.00182
280	0.00331
300	0.00571
320	0.00941
340	0.01488
360	0.02269
380	0.03350
400	0.04806
420	0.06720
440	0.09180
460	0.12280
480	0.16120
500	0.20800
520	0.26420
540	0.33080
560	0.40880

9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	British thermal unit per pound-F
0	0.333
25	0.347
50	0.361
75	0.376
100	0.390
125	0.403
150	0.417
175	0.431
200	0.444
225	0.457
250	0.470
275	0.483
300	0.496
325	0.508
350	0.521
375	0.533
400	0.545
425	0.557
450	0.568
475	0.580
500	0.591
525	0.602
550	0.614
575	0.624
600	0.635