TRIETHYLBENZENE

TEB

CAUTIONARY RESPONSE INFORMATION

Common Synonyms			
1,3,5-Triethylbenzene sym-Triethylbenzene	Liquid Floats on water.	Colorless	Weak chemical odor

Call fire department.
Avoid contact with liquid.
Notify local health and pollution control agencies.

Fire	Combustible. Extinguish with dry chemical, foam, or carbon dioxide. Water may be ineffective on fire. Cool exposed containers with water.
Exposure	CALL FOR MEDICAL AID. LIQUID Irritating to skin and eyes. 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
Chemical and Physical Treatment:
Absorb
Clean shore line
Salvage waterfowl

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: 32; Aromatic Hydrocarbon
2.2 Formula: $C_6H_3(C_2H_5)_3$-1, 3, 5
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: 51129

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Goggles or face shield; rubber gloves.
3.2 Symptoms Following Exposure: Eye irritation by vapors or liquid. Central nervous system depression. Prolonged skin contact with liquid can cause dermatitis.
3.3 Treatment of Exposure: EYES: flush with water for at least 15 min.; call a doctor. SKIN: wipe off, wash 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 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 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: 181°F O.C.
4.2 Flammable Limits in Air: Currently not available
4.3 Fire Extinguishing Agents: Dry chemical, foam, or 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: 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: 78.5 (calc.)
4.12 Flame Temperature: Currently not available
4.13 Combustion Molar Ratio (Reactant to Product): 21.0 (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: Currently not available
6.5 GESAMP Hazard Profile:
Bioaccumulation: T
Damage to living resources: 4
Human Oral hazard: 0
Human Contact hazard: 0
Reduction of amenities: 0

7. SHIPPING INFORMATION

7.1 Grades of Purity: Currently not available
7.2 Storage Temperature: Ambient
7.3 Inert Atmosphere: No requirement
7.4 Venting: Open (flame arrester)
7.5 IMO Pollution Category: A
7.6 Ship Type: 2
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: Yes
8.5 NFPA Hazard Classification:

Category	Classification
Health Hazard (Blue).....	-
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: 162.27
9.3 Boiling Point at 1 atm: 421°F = 216°C = 489°K
9.4 Freezing Point: Not pertinent
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Not pertinent
9.7 Specific Gravity: 0.861 at 20°C (liquid)
9.8 Liquid Surface Tension: Currently not available
9.9 Liquid Water Interfacial Tension: Currently not available
9.10 Vapor (Gas) Specific Gravity: Not pertinent
9.11 Ratio of Specific Heats of Vapor (Gas): 1.039
9.12 Latent Heat of Vaporization: (est.) 120 Btu/lb = 65 cal/g = 2.7 X 10^7 J/kg
9.13 Heat of Combustion: Currently not available
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: 0.03 psia

NOTES

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9.20 SATURATED LIQUID DENSITY	
Temperature (degrees F)	Pounds per cubic foot
52	54.240
54	54.170
56	54.100
58	54.030
60	53.960
62	53.890
64	53.820
66	53.750
68	53.680
70	53.610
72	53.540
74	53.480
76	53.410
78	53.340
80	53.270
82	53.200
84	53.130
86	53.060
88	52.990
90	52.920
92	52.850
94	52.780
96	52.710
98	52.640
100	52.570
102	52.500

9.21 LIQUID HEAT CAPACITY	
Temperature (degrees F)	British thermal unit per pound-F
42	0.478
44	0.478
46	0.478
48	0.478
50	0.478
52	0.478
54	0.478
56	0.478
58	0.478
60	0.478
62	0.478
64	0.478
66	0.478
68	0.478
70	0.478
72	0.478
74	0.478
76	0.478

9.22 LIQUID THERMAL CONDUCTIVITY	
Temperature (degrees F)	British thermal unit inch per hour-square foot-F
41	1.040
42	1.040
43	1.040
44	1.040
45	1.040
46	1.040
47	1.040
48	1.040
49	1.040
50	1.040
51	1.040
52	1.040
53	1.040
54	1.040
55	1.040
56	1.040
57	1.040
58	1.040
59	1.040
60	1.040
61	1.040
62	1.040
63	1.040
64	1.040
65	1.040
66	1.040

9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Centipoise
41	2.880
42	2.837
43	2.795
44	2.753
45	2.712
46	2.673
47	2.633
48	2.595
49	2.557
50	2.520
51	2.484
52	2.448
53	2.413
54	2.379
55	2.345
56	2.312
57	2.279
58	2.247
59	2.216
60	2.185
61	2.155
62	2.125
63	2.096
64	2.067
65	2.039
66	2.011

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
120	0.023
140	0.044
160	0.081
180	0.142
200	0.240
220	0.390
240	0.617
260	0.947
280	1.418
300	2.073
320	2.967
340	4.164
360	5.739
380	7.779
400	10.380
420	13.660

9.26 SATURATED VAPOR DENSITY	
Temperature (degrees F)	Pounds per cubic foot
120	0.00060
140	0.00112
160	0.00198
180	0.00336
200	0.00549
220	0.00868
240	0.01333
260	0.01989
280	0.02897
300	0.04125
320	0.05753
340	0.07871
360	0.10580
380	0.14000
400	0.18260
420	0.23480

9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	British thermal unit per pound-F
0	0.289
25	0.303
50	0.316
75	0.330
100	0.343
125	0.356
150	0.369
175	0.382
200	0.395
225	0.407
250	0.419
275	0.432
300	0.443
325	0.455
350	0.467
375	0.478
400	0.489
425	0.501
450	0.511
475	0.522
500	0.533
525	0.543
550	0.553
575	0.563
600	0.573