ISODECYL ACRYLATE

IAI

CAUTIONARY RESPONSE INFORMATION

Common Synonyms	Liquid	Colorless	Weak odor
	Floats on water.		

Keep people away.
Call fire department.
Notify local health and pollution control agencies.

Fire

Combustible.
Extinguish with dry chemicals, 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.
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: 14; Acrylate
2.2 Formula: $CH_2=CHCOOC_{10}H_{21}$
2.3 IMO/UN Designation: Not listed
2.4 DOT ID No.: Not listed
2.5 CAS Registry No.: 1330-61-6
2.6 NAERG Guide No.: Not listed
2.7 Standard Industrial Trade Classification: 51379

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Goggles or face shield; rubber gloves.
3.2 Symptoms Following Exposure: Inhalation causes mild irritation of nose and throat. Eyes are mildly irritated by vapor, more severely by liquid. Prolonged contact of liquid with skin may cause irritation.
3.3 Treatment of Exposure: INHALATION: move to fresh air. EYES: flush with water for at least 15 min. after contact with liquid. SKIN: wipe off, wash well 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: Grade 1; LD_{50} = 5 to 15 g/kg
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: 240°F O.C.
4.2 Flammable Limits in Air: Currently not available
4.3 Fire Extinguishing Agents: Foam, dry chemical, 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: May polymerize to gummy solid. Reaction is not violent.
4.7 Auto Ignition Temperature: Currently not available
4.8 Electrical Hazards: Currently not available
4.9 Burning Rate: Not pertinent
4.10 Adiabatic Flame Temperature: Currently not available
4.11 Stoichometric Air to Fuel Ratio: 85.7 (calc.)
4.12 Flame Temperature: Currently not available
4.13 Combustion Molar Ratio (Reactant to Product): 25.0 (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 if inhibited.
5.4 Neutralizing Agents for Acids and Caustics: Not pertinent
5.5 Polymerization: In the absence of inhibitor, polymerization will occur, especially when heated.
5.6 Inhibitor of Polymerization: Monomethyl ether of hydroquinone, 25 ppm

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: 4
Human Oral hazard: 0
Human Contact hazard: 0
Reduction of amenities: X

7. SHIPPING INFORMATION

7.1 Grades of Purity: 97.5+%
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: 3

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: Not listed
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: 212.4
9.3 Boiling Point at 1 atm: Not pertinent (polymerizes)
9.4 Freezing Point: –148°F = –100°C = 173°K
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Not pertinent
9.7 Specific Gravity: 0.885 at 20°C (liquid)
9.8 Liquid Surface Tension: (est.) 30 dynes/cm = 0.030 N/m at 20°C
9.9 Liquid Water Interfacial Tension: (est.) 30 dynes/cm = 0.030 N/m at 20°C
9.10 Vapor (Gas) Specific Gravity: Not pertinent
9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
9.12 Latent Heat of Vaporization: 110 Btu/lb = 61 cal/g = 2.6 X 10^5 J/kg
9.13 Heat of Combustion: (est.) –16,300 Btu/lb = –9,100 cal/g = –380 X 10^5 J/kg
9.14 Heat of Decomposition: Not pertinent
9.15 Heat of Solution: Not pertinent
9.16 Heat of Polymerization: (est.) –119 Btu/lb = –66 cal/g = –2.8 X 10^5 J/kg
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
34	56.420
36	56.350
38	56.280
40	56.210
42	56.150
44	56.080
46	56.010
48	55.940
50	55.870
52	55.800
54	55.730
56	55.660
58	55.590
60	55.520
62	55.450
64	55.380
66	55.310
68	55.240
70	55.170
72	55.100
74	55.040
76	54.970

9.21 LIQUID HEAT CAPACITY	
Temperature (degrees F)	British thermal unit per pound-F
34	0.441
36	0.442
38	0.443
40	0.444
42	0.446
44	0.447
46	0.448
48	0.449
50	0.450
52	0.451
54	0.452
56	0.453
58	0.454
60	0.456
62	0.457
64	0.458
66	0.459
68	0.460
70	0.461
72	0.462
74	0.463
76	0.464
78	0.466
80	0.467
82	0.468
84	0.469

9.22 LIQUID THERMAL CONDUCTIVITY	
Temperature (degrees F)	British thermal unit inch per hour-square foot-F
42	1.048
44	1.048
46	1.048
48	1.048
50	1.048
52	1.048
54	1.048
56	1.048
58	1.048
60	1.048
62	1.048
64	1.048
66	1.048
68	1.048
70	1.048
72	1.048
74	1.048
76	1.048

9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Centipoise
35	4.146
40	3.792
45	3.474
50	3.189
55	2.932
60	2.700
65	2.490
70	2.300
75	2.128
80	1.971
85	1.829
90	1.699
95	1.580
100	1.472

9.24 SOLUBILITY IN WATER	
Temperature (degrees F)	Pounds per 100 pounds of water
68	0.010

9.25 SATURATED VAPOR PRESSURE	
Temperature (degrees F)	Pounds per square inch
304	0.792
306	0.817
308	0.843
310	0.870
312	0.897
314	0.925
316	0.953
318	0.983
320	1.013
322	1.043
324	1.075
326	1.107
328	1.140
330	1.174
332	1.209
334	1.245
336	1.281
338	1.319

9.26 SATURATED VAPOR DENSITY	
Temperature (degrees F)	Pounds per cubic foot
304	0.02053
306	0.02113
308	0.02174
310	0.02236
312	0.02300
314	0.02365
316	0.02432
318	0.02500
320	0.02570
322	0.02641
324	0.02714
326	0.02789
328	0.02865
330	0.02943
332	0.03022
334	0.03103
336	0.03186
338	0.03271

9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	British thermal unit per pound-F
	NOT PERTINENT