DIPROPYLENE GLYCOL DIBENZOATE

DGY

CAUTIONARY RESPONSE INFORMATION

Common Synonyms			
Benzoflex 9-88 Benzoflex 9-88 SG Benzoflex 9-98 Dibenzol dipropylene glycol ester Dipropanediol dibenzoate K-flex DP	Viscous liquid	Straw color	Faint aromatic

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

Fire	Combustible. Extinguish with dry chemical, alcohol foam, CO_2 or water fog. Wear self-contained breathing apparatus and full protective clothing.
Exposure	CALL FOR MEDICAL AID. VAPOR, MIST and LIQUID May irritate eyes, nose and throat. If inhaled, remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. 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 2 glasses of water and induce vomiting.
Water Pollution	Effect of low concentration on aquatic life is not known. 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
Collection Systems: Dredge

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: 34; Esters
2.2 Formula: $[(C_6H_5)CO_2CH)(CH_3)CH_2]_2O$
2.3 IMO/UN Designation: Currently not available
2.4 DOT ID No.: Not listed
2.5 CAS Registry No.: 94-51-9
2.6 NAERG Guide No.: Not listed
2.7 Standard Industrial Trade Classification: 51616

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Self-contained breathing apparatus, rubber boots, rubber gloves, and rubber apron. If spill is small, a full facepiece air purifying cartridge respirator equipped with organic vapor cartridge may be satisfactory.
3.2 Symptoms Following Exposure: May irritate eyes, nose, throat and mucous membrane. May cause coughing and chest discomfort. Prolonged exposure may cause skin irritation.
3.3 Treatment of Exposure: INHALATION: Get medical aid. Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. INGESTION: If victim is conscious, have victim drink 2 glasses of water and induce vomiting by sticking a finger down the throat. Do not give anything to an unconscious or convulsive person. EYES: Flush eyes with lots of running water for 15 minutes, lifting the upper and lower eyelids occasionally. SKIN: Remove contaminated clothing and shoes. Wash with lots of 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 2; LD_{50} = 9.80 g/kg (rat)
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: Defatting of skin
3.10 Vapor (Gas) Irritant Characteristics: Vapors or mists 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 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: >300°F C.C.
4.2 Flammable Limits in Air: Currently not available
4.3 Fire Extinguishing Agents: Water spray, dry chemical, carbon dioxide, alcohol foam.
4.4 Fire Extinguishing Agents Not to Be Used: Currently not available
4.5 Special Hazards of Combustion Products: When heated to decomposition, it emits acrid smoke.
4.6 Behavior in Fire: Currently not available
4.7 Auto Ignition Temperature: Currently not available
4.8 Electrical Hazards: Currently not available
4.9 Burning Rate: Currently not available
4.10 Adiabatic Flame Temperature: Currently not available
4.11 Stoichometric Air to Fuel Ratio: 109.5 (calc.)
4.12 Flame Temperature: Currently not available
4.13 Combustion Molar Ratio (Reactant to Product): 31.0 (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: Will not occur.
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: 0
Damage to living resources: -
Human Oral hazard: 0
Human Contact hazard: 0
Reduction of amenities: 0

7. SHIPPING INFORMATION

7.1 Grades of Purity: >99%
7.2 Storage Temperature: Currently not available
7.3 Inert Atmosphere: Currently not available
7.4 Venting: Currently not available
7.5 IMO Pollution Category: D
7.6 Ship Type: Data not avaialable
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).....	1
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: 342.42
9.3 Boiling Point at 1 atm: 446°F = 230°C = 503.2°K
9.4 Freezing Point: –22°F = –30°C = 243.2°K
9.5 Critical Temperature: Currently not available
9.6 Critical Pressure: Currently not available
9.7 Specific Gravity: 1.13
9.8 Liquid Surface Tension: Currently not available
9.9 Liquid Water Interfacial Tension: Currently not available
9.10 Vapor (Gas) Specific Gravity: 11.8
9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available
9.12 Latent Heat of Vaporization: Currently not available
9.13 Heat of Combustion: Currently not available
9.14 Heat of Decomposition: Currently not available
9.15 Heat of Solution: Currently not available
9.16 Heat of Polymerization: Currently not available
9.17 Heat of Fusion: Currently not available
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
	CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE		CURRENTLY NOT AVAILABLE

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
	INSOLUBLE	68	0.019		CURRENTLY NOT AVAILABLE	0	0.238
						25	0.249
						50	0.261
						75	0.272
						100	0.282
						125	0.293
						150	0.303
						175	0.314
						200	0.324
						225	0.334
						250	0.343
						275	0.353
						300	0.362
						325	0.371
						350	0.380
						375	0.389
						400	0.397
						425	0.406
						450	0.414
						475	0.422
						500	0.430
						525	0.427
						550	0.445
						575	0.452
						600	0.460