

PHENYLDICHLOROARSINE

PDL

CAUTIONARY RESPONSE INFORMATION

| | |
|---|---|
| Common Synonyms Phenylarsenic dichloride | Liquid Colorless to yellow Weak unpleasant odor |
| Sinks in water. | |
| <p>KEEP PEOPLE AWAY. AVOID CONTACT WITH LIQUID. Wear rubber overclothing (including gloves). Notify local health and pollution control agencies. Protect water intakes.</p> | |
| Fire | Fire data not available. POISONOUS GASES ARE PRODUCED WHEN HEATED. |
| Exposure | CALL FOR MEDICAL AID. LIQUID POISONOUS IF SWALLOWED. Will burn 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. DO NOT INDUCE VOMITING. |
| Water Pollution | Effect of low concentrations on aquatic life is unknown. 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: Pump
Chemical and Physical Treatment:
Neutralize
Do not burn

2. CHEMICAL DESIGNATIONS

2.1 **CG Compatibility Group:** Not listed.
2.2 **Formula:** C₆H₅AsCl₂
2.3 **IMO/UN Designation:** 6.1/1556
2.4 **DOT ID No.:** Not listed.
2.5 **CAS Registry No.:** 696-28-6
2.6 **NAERG Guide No.:** 152
2.7 **Standard Industrial Trade Classification:** 51550

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Full protective clothing; gas mask or self-contained breathing apparatus
- 3.2 **Symptoms Following Exposure:** Inhalation causes irritation of respiratory system, pulmonary edema, and systemic effects. Vapor irritates eyes. Liquid causes severe burns of eyes and severe irritation or burns of skin. Ingestion causes severe irritation or burns of mouth and stomach.
- 3.3 **Treatment of Exposure:** Get medical attention at once following all exposures to this compound.
INHALATION: remove victim from exposure; give artificial respiration if breathing has ceased.
EYES: immediately wash with copious amounts of water for at least 15 min. **SKIN:** flush with water and wash well with soap and water; compound can be absorbed through skin and cause toxic systemic effects. **INGESTION:** give large amounts of 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:** Currently not available
3.11 **Liquid or Solid Characteristics:** Currently not available
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:** Currently not available
4.2 **Flammable Limits in Air:** Currently not available
4.3 **Fire Extinguishing Agents:** Water
4.4 **Fire Extinguishing Agents Not to Be Used:** Not pertinent
4.5 **Special Hazards of Combustion Products:** Highly toxic arsenic fumes are formed when hot.
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:** 1.8 mm/min.
4.10 **Adiabatic Flame Temperature:** Currently not available
4.11 **Stoichiometric Air to Fuel Ratio:** 35.7 (calc.)
4.12 **Flame Temperature:** Currently not available
4.13 **Combustion Molar Ratio (Reactant to Product):** 10.0 (calc.)
4.14 **Minimum Oxygen Concentration for Combustion (MOCC):** Not listed

5. CHEMICAL REACTIVITY

- 5.1 **Reactivity with Water:** Very slow reaction, considered non-hazardous. Hydrochloric acid is formed.
5.2 **Reactivity with Common Materials:** Corrodes metals because of acid formed.
5.3 **Stability During Transport:** Stable
5.4 **Neutralizing Agents for Acids and Cautics:** 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:** Not listed

7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Commercial
7.2 **Storage Temperature:** Ambient
7.3 **Inert Atmosphere:** No requirement
7.4 **Venting:** Pressure-vacuum
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:** 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:** 222.9
9.3 **Boiling Point at 1 atm:** 495°F = 257°C = 530°K
9.4 **Freezing Point:** 3.9°F = -15.6°C = 257.6°K
9.5 **Critical Temperature:** Not pertinent
9.6 **Critical Pressure:** Not pertinent
9.7 **Specific Gravity:** 1.657 at 20°C (liquid)
9.8 **Liquid Surface Tension:** 44.64 dynes/cm = 0.04464 N/m at 18°C
9.9 **Liquid Water Interfacial Tension:** Not pertinent
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:** 99 Btu/lb = 55 cal/g = 2.3 X 10³ J/kg
9.13 **Heat of Combustion:** (est.) -6,450 Btu/lb = -3,600 cal/g = -150 X 10³ 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:** Currently not available

NOTES

PHENYLDICHLOROARSINE

PDL

| 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 |
| 34 | 104.200 | 52 | 0.400 | 52 | 1.048 | | N O T P E R T I N E N T |
| 36 | 104.099 | 54 | 0.400 | 54 | 1.048 | | |
| 38 | 104.000 | 56 | 0.400 | 56 | 1.048 | | |
| 40 | 104.000 | 58 | 0.400 | 58 | 1.048 | | |
| 42 | 103.900 | 60 | 0.400 | 60 | 1.048 | | |
| 44 | 103.799 | 62 | 0.400 | 62 | 1.048 | | |
| 46 | 103.799 | 64 | 0.400 | 64 | 1.048 | | |
| 48 | 103.700 | 66 | 0.400 | 66 | 1.048 | | |
| 50 | 103.599 | 68 | 0.400 | 68 | 1.048 | | |
| 52 | 103.599 | 70 | 0.400 | 70 | 1.048 | | |
| 54 | 103.500 | 72 | 0.400 | 72 | 1.048 | | |
| 56 | 103.400 | 74 | 0.400 | 74 | 1.048 | | |
| 58 | 103.299 | 76 | 0.400 | 76 | 1.048 | | |
| 60 | 103.299 | 78 | 0.400 | 78 | 1.048 | | |
| 62 | 103.200 | 80 | 0.400 | 80 | 1.048 | | |
| 64 | 103.099 | 82 | 0.400 | 82 | 1.048 | | |
| 66 | 103.099 | 84 | 0.400 | 84 | 1.048 | | |
| 68 | 103.000 | 86 | 0.400 | 86 | 1.048 | | |
| 70 | 102.900 | | | | | | |
| 72 | 102.900 | | | | | | |
| 74 | 102.799 | | | | | | |
| 76 | 102.700 | | | | | | |
| 78 | 102.599 | | | | | | |
| 80 | 102.599 | | | | | | |
| 82 | 102.500 | | | | | | |
| 84 | 102.400 | | | | | | |

| 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 |
| | I N S O L U B I L I T Y | 60 | 0.001 | 60 | 0.00003 | | N O T P E R T I N E N T |
| | | 70 | 0.001 | 70 | 0.00005 | | |
| | | 80 | 0.002 | 80 | 0.00007 | | |
| | | 90 | 0.003 | 90 | 0.00010 | | |
| | | 100 | 0.004 | 100 | 0.00015 | | |
| | | 110 | 0.006 | 110 | 0.00020 | | |
| | | 120 | 0.008 | 120 | 0.00028 | | |
| | | 130 | 0.011 | 130 | 0.00038 | | |
| | | 140 | 0.015 | 140 | 0.00051 | | |
| | | 150 | 0.020 | 150 | 0.00068 | | |
| | | 160 | 0.027 | 160 | 0.00090 | | |
| | | 170 | 0.036 | 170 | 0.00117 | | |
| | | 180 | 0.047 | 180 | 0.00152 | | |
| | | 190 | 0.061 | 190 | 0.00195 | | |
| | | 200 | 0.079 | 200 | 0.00249 | | |
| | | 210 | 0.102 | 210 | 0.00315 | | |