

METHYL PARATHION

MPT

CAUTIONARY RESPONSE INFORMATION

Common Synonyms Alkron O,O-Dimethyl o-p-nitrophenyl thiophosphate Metron MPT Nitran Parathion-methyl Paridol Wolfatox		Solid crystals White solid or brown liquid Rotten eggs or garlic odor
Solid and liquid sink in water, solution floats on water. Melting (freezing) point is 65°F.		
Evacuate. Keep people away. AVOID CONTACT WITH LIQUID. Wear chemical protective suit with self-contained breathing apparatus. Call fire department. Notify local health and pollution control agencies.		
Fire	Combustible. POISONOUS GASES ARE PRODUCED IN FIRE AND WHEN HEATED. Containers may explode in fire. Wear chemical protective suit with self-contained breathing apparatus. Combat fires from safe distance or protected location. Extinguish with water. Cool exposed containers with water.	
Exposure	CALL FOR MEDICAL AID. LIQUID OR SOLID POISONOUS IF SWALLOWED OR IF SKIN IS EXPOSED. Irritating to 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 and have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.	
Water Pollution	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. Solution is 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
 Collection Systems: Pump; Dredge
 Clean shore line

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.
 2.2 Formula: (CH₃O)₂PSOC(HNO₂)₂p
 2.3 IMO/UN Designation: 6.1/2783
 2.4 DOT ID No.: 2783
 2.5 CAS Registry No.: 298-00-0
 2.6 NAERG Guide No.: 152
 2.7 Standard Industrial Trade Classification: 51631

3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Approved mask or respirator; natural rubber gloves, overshoes; protective clothing; goggles.
- 3.2 **Symptoms Following Exposure:** Exposure to fumes from a fire, or to the liquid, causes headache, blurred vision, constricted pupils of the eyes, weakness, nausea, cramps, diarrhea, and tightness in the chest. Muscle twitch and convulsions may follow. Symptoms may develop over a period of 8 hrs.
- 3.3 **Treatment of Exposure:** Speed is essential. INGESTION: call a doctor. If victim is not breathing, immediately institute artificial respiration by mouth-to-mouth, mouth-to-nose, or mouth-to-oropharyngeal method; when victim is conscious, give milk, water, or salt-water and induce vomiting repeatedly. SKIN OR EYES: flood and wash exposed areas thoroughly with water; remove contaminated clothing under a shower.
- 3.4 TLV-TWA: 0.2 mg/m³
 3.5 TLV-STEL: Not listed.
 3.6 TLV-Ceiling: Not listed.
- 3.7 **Toxicity by Ingestion:** Grade 4; LD₅₀ below 50 mg/kg (rat)
 3.8 **Toxicity by Inhalation:** Currently not available.
 3.9 **Chronic Toxicity:** Currently not available
- 3.10 **Vapor (Gas) Irritant Characteristics:** Not pertinent
 3.11 **Liquid or Solid Characteristics:** Poisonous when absorbed through 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:** 115°F O.C.
 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:** Toxic gases are produced in fires.
 4.6 **Behavior in Fire:** Drums may rupture violently.
 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 **Stoichiometric Air to Fuel Ratio:** 59.5 (calc.)
 4.12 **Flame Temperature:** Currently not available
 4.13 **Combustion Molar Ratio (Reactant to Product):** 15.5 (calc.)
 4.14 **Minimum Oxygen Concentration for Combustion (MOCC):** Not listed

5. CHEMICAL REACTIVITY

- 5.1 **Reactivity with Water:** Half decomposed in 8 days at 40°C
 5.2 **Reactivity with Common Materials:** Is absorbed in wood, etc., which must be replaced to eliminate poison hazard.
 5.3 **Stability During Transport:** Decomposes above 50°C with possible explosive force.
 5.4 **Neutralizing Agents for Acids and Caustics:** Apply caustic or soda ash slurry until yellow stains disappear.
 5.5 **Polymerization:** Not pertinent
 5.6 **Inhibitor of Polymerization:** Not pertinent

6. WATER POLLUTION

- 6.1 **Aquatic Toxicity:**
 1.9 ppm/96 hr/bluegill/TLW/fresh water
 8.3 ppm/96 hr/fathead/TLW/fresh water
 6.2 **Waterfowl Toxicity:** LD₅₀ = 10 mg/kg
 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: 4
 Human Oral hazard: 3
 Human Contact hazard: II
 Reduction of amenities: XXX

7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Pure (solid); technical (liquid); 80% in xylene
 7.2 **Storage Temperature:** Below 50°F
 7.3 **Inert Atmosphere:** No requirement
 7.4 **Venting:** Pressure-vacuum
 7.5 **IMO Pollution Category:** D
 7.6 **Ship Type:** Data not available
 7.7 **Barge Hull Type:** Currently not available

8. HAZARD CLASSIFICATIONS

- 8.1 49 CFR Category: Poison
 8.2 49 CFR Class: 6.1
 8.3 49 CFR Package Group: II
 8.4 Marine Pollutant: Yes
 8.5 NFPA Hazard Classification:
- | Category | Classification |
|---------------------------|----------------|
| Health Hazard (Blue)..... | 4 4 |
| Flammability (Red)..... | 3 1 |
| Instability (Yellow)..... | 2 2 |
- 8.6 EPA Reportable Quantity: 100 pounds
 8.7 EPA Pollution Category: B
 8.8 RCRA Waste Number: P071
 8.9 EPA FWPCA List: Yes

9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 **Physical State at 15° C and 1 atm:** Solid
 9.2 **Molecular Weight:** 263.2
 9.3 **Boiling Point at 1 atm:** Very high
 9.4 **Freezing Point:** 65°F = 18°C = 291°K
 9.5 **Critical Temperature:** Not pertinent
 9.6 **Critical Pressure:** Not pertinent
 9.7 **Specific Gravity:** 1.360 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):** Not pertinent
 9.12 **Latent Heat of Vaporization:** Not pertinent
 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:** 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
68	84.770	85	0.365		N	68	5.770
69	84.770	90	0.365		O	69	5.623
70	84.770	95	0.365		T	70	5.481
71	84.770	100	0.365			71	5.342
72	84.770	105	0.365		P	72	5.207
73	84.770	110	0.365		E	73	5.077
74	84.770	115	0.365		R	74	4.950
75	84.770	120	0.365		T	75	4.826
76	84.770	125	0.365		I	76	4.707
77	84.770	130	0.365		N	77	4.590
78	84.770	135	0.365		E	78	4.477
79	84.770	140	0.365		N	79	4.367
80	84.770	145	0.365		T	80	4.260
81	84.770	150	0.365			81	4.156
82	84.770					82	4.056
83	84.770					83	3.957
84	84.770					84	3.862
85	84.770					85	3.769

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
68	0.002		C U R R E N T L Y N O T A V A I L A B L E		C U R R E N T L Y N O T A V A I L A B L E		N O T P E R T I N E N T