2-(2,4,5-TRICHLOROPHENOXY) PROPANOIC ACID

TPA

CAUTIONARY RESPONSE INFORMATION

Common Synonyms	Solid, powder White
Fenoprop Kurosalg Silvex 2,4,5-TP	Sinks and mixes slowly with water.

Keep people away. Avoid contact with solid and dust.
Notify local health and pollution control agencies.
Protect water intakes.

Fire	Not flammable. Poisonous gases may be produced in fire. Wear goggles, self-contained breathing apparatus and rubber overclothing (including gloves).
Exposure	CALL FOR MEDICAL AID. SOLID OR DUST Harmful if swallowed or inhaled. Irritating to skin and eyes. Move to fresh air. 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 warm.
Water Pollution	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.

1. CORRECTIVE RESPONSE ACTIONS

Dilute and disperse
Stop discharge
Contain
Collection Systems: Pump; Dredge

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: Not listed.
2.2 Formula: $(C_6H_2Cl_3)OCH(CH_3)COOH$
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: 51377

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Self-contained breathing apparatus, rubber gloves, hats, suits and boots, and goggles.
3.2 Symptoms Following Exposure: INHALATION: Irritating to nose and throat. May cause nausea, vomiting, lethargy and incoordination. May cause kidney and liver damage. EYES: Irritation. May cause corneal injury or burn. SKIN: Irritation.
3.3 Treatment of Exposure: Call a doctor. INHALATION: Remove from exposure. EYES: Flush with water for 15 minutes. SKIN: Wash with soap and water. INGESTION: Induce vomiting.
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} = 0.5 to 5 g/kg.
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: A decrease in fetal weight and cleft palates were observed in laboratory mice. Possible liver and kidney damage.
3.10 Vapor (Gas) Irritant Characteristics: Not pertinent
3.11 Liquid or Solid Characteristics: Minimum hazard. If powder remains on skin, 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: Not pertinent
4.2 Flammable Limits in Air: Not flammable
4.3 Fire Extinguishing Agents: Water fog, foam, CO_2 or dry chemical.
4.4 Fire Extinguishing Agents Not to Be Used: Currently not available
4.5 Special Hazards of Combustion Products: Hydrogen chloride may be liberated.
4.6 Behavior in Fire: Currently not available
4.7 Auto Ignition Temperature: Not pertinent
4.8 Electrical Hazards: Not pertinent
4.9 Burning Rate: Not flammable
4.10 Adiabatic Flame Temperature: Currently not available
4.11 Stoichometric Air to Fuel Ratio: Not pertinent.
4.12 Flame Temperature: Currently not available
4.13 Combustion Molar Ratio (Reactant to Product): Not pertinent.
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: Currently not available
5.5 Polymerization: Not pertinent
5.6 Inhibitor of Polymerization: Not pertinent

6. WATER POLLUTION

6.1 Aquatic Toxicity: 0.35 ppm/96-hour/Mosquito fish/TL_m/static
1 to 5 ppm lethal to newly hatched bluegill fry
2.4 ppm/48-hour/bluegill/TL_m.
6.2 Waterfowl Toxicity: 2000 mg/kg LD_{50}.
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: 59 to 65% emulsifiable concentration 10.4% amine salt solution 98%
7.2 Storage Temperature: Ambient
7.3 Inert Atmosphere: Currently not available
7.4 Venting: Currently not available
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: Solid
9.2 Molecular Weight: 269.51.
9.3 Boiling Point at 1 atm: >300°F at 0.5.
9.4 Freezing Point: 358.9°F = 181.6°C = 454.75°K
9.5 Critical Temperature: Not pertinent
9.6 Critical Pressure: Not pertinent
9.7 Specific Gravity: 1.2085 at 20°C.
9.8 Liquid Surface Tension: Not pertinent
9.9 Liquid Water Interfacial Tension: Not pertinent
9.10 Vapor (Gas) Specific Gravity: 9.29
9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
9.12 Latent Heat of Vaporization: Not pertinent
9.13 Heat of Combustion: Not pertinent
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
	NOT PERTINENT		NOT PERTINENT		NOT PERTINENT		NOT PERTINENT

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
	SLIGHTY SOLUBLE		NOT PERTINENT		NOT PERTINENT		CURRENTLY NOT AVAILABLE