

# POTASSIUM BINOXALATE

PBO

CAUTIONARY RESPONSE INFORMATION				4. FIRE HAZARDS	7. SHIPPING INFORMATION
Common Synonyms Potassium acid oxalate Sal acetosella Salt of sorrel	Solid Sinks in water.	White	Odorless	<p><b>4.1 Flash Point:</b> Not flammable</p> <p><b>4.2 Flammable Limits in Air:</b> Not flammable</p> <p><b>4.3 Fire Extinguishing Agents:</b> Not pertinent</p> <p><b>4.4 Fire Extinguishing Agents Not to Be Used:</b> Not pertinent</p> <p><b>4.5 Special Hazards of Combustion Products:</b> Currently not available</p> <p><b>4.6 Behavior in Fire:</b> Currently not available</p> <p><b>4.7 Auto Ignition Temperature:</b> Not pertinent</p> <p><b>4.8 Electrical Hazards:</b> Not pertinent</p> <p><b>4.9 Burning Rate:</b> Not pertinent</p> <p><b>4.10 Adiabatic Flame Temperature:</b> Currently not available</p> <p><b>4.11 Stoichiometric Air to Fuel Ratio:</b> Not pertinent</p> <p><b>4.12 Flame Temperature:</b> Currently not available</p> <p><b>4.13 Combustion Molar Ratio (Reactant to Product):</b> Not pertinent</p> <p><b>4.14 Minimum Oxygen Concentration for Combustion (MOCC):</b> Not listed</p>	<p><b>7.1 Grades of Purity:</b> Technical</p> <p><b>7.2 Storage Temperature:</b> Ambient</p> <p><b>7.3 Inert Atmosphere:</b> No requirement</p> <p><b>7.4 Venting:</b> Open</p> <p><b>7.5 IMO Pollution Category:</b> Currently not available</p> <p><b>7.6 Ship Type:</b> Currently not available</p> <p><b>7.7 Barge Hull Type:</b> Currently not available</p>
<b>Fire</b>	Not flammable.				
<b>Exposure</b>	<p>CALL FOR MEDICAL AID. DUST</p> <p>Irritating to eyes, nose and throat. If inhaled will cause coughing, difficult breathing, or loss of consciousness. If in eyes, hold eyelids open and flush with plenty of water. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.</p> <p><b>SOLID</b></p> <p>Irritating to skin and eyes. If swallowed will cause nausea, vomiting or loss of consciousness. 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. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.</p>				
<b>Water Pollution</b>	<p>Effect of low concentrations on aquatic life if unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.</p>				
<b>1. CORRECTIVE RESPONSE ACTIONS</b> Dilute and disperse Stop discharge Collection Systems: Dredge		<b>2. CHEMICAL DESIGNATIONS</b> 2.1 CG Compatibility Group: Not listed. 2.2 Formula: <chem>KHC2O4</chem> 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: 51385			
<b>3. HEALTH HAZARDS</b> <p><b>3.1 Personal Protective Equipment:</b> Dust mask; goggles or face shield; protective gloves</p> <p><b>3.2 Symptoms Following Exposure:</b> Inhalation of dust causes irritation of nose and throat. Ingestion causes burning pain in throat, esophagus, and stomach; exposed areas of mucous membrane turn white; vomiting, severe purging, weak pulse, and cardiovascular collapse; if death is delayed, neuromuscular symptoms develop. Contact with dust irritates eyes and may cause mild irritation of skin.</p> <p><b>3.3 Treatment of Exposure:</b> INHALATION: move to fresh air; if exposure to dust is severe, get medical attention. INGESTION: give immediately by mouth a dilute solution of any soluble calcium salt (calcium lactate, lime water, chalk solution, or even milk); large amounts of Ca are required; administer gastric lavage with dilute lime water; consult physician; watch for edema of the glottis and delayed constriction of esophagus. EYES: flush with water for at least 15 min. SKIN: wash well with soap and water.</p> <p><b>3.4 TLV-TWA:</b> Not listed.</p> <p><b>3.5 TLV-STEL:</b> Not listed.</p> <p><b>3.6 TLV-Ceiling:</b> Not listed.</p> <p><b>3.7 Toxicity by Ingestion:</b> Grade 3; LD<sub>50</sub> = 50-500 mg/kg</p> <p><b>3.8 Toxicity by Inhalation:</b> Currently not available.</p> <p><b>3.9 Chronic Toxicity:</b> Currently not available</p> <p><b>3.10 Vapor (Gas) Irritant Characteristics:</b> Currently not available</p> <p><b>3.11 Liquid or Solid Characteristics:</b> Currently not available</p> <p><b>3.12 Odor Threshold:</b> Odorless</p> <p><b>3.13 IDLH Value:</b> Not listed.</p> <p><b>3.14 OSHA PEL-TWA:</b> Not listed.</p> <p><b>3.15 OSHA PEL-STEL:</b> Not listed.</p> <p><b>3.16 OSHA PEL-Ceiling:</b> Not listed.</p> <p><b>3.17 EPA A EGL:</b> Not listed</p>				<p><b>5. CHEMICAL REACTIVITY</b></p> <p><b>5.1 Reactivity with Water:</b> Below 50°C dissolves in water and reacts to form the much less soluble potassium tetraxoxalate, which separates out.</p> <p><b>5.2 Reactivity with Common Materials:</b> Currently not available</p> <p><b>5.3 Stability During Transport:</b> Stable</p> <p><b>5.4 Neutralizing Agents for Acids and Caustics:</b> Not pertinent</p> <p><b>5.5 Polymerization:</b> Not pertinent</p> <p><b>5.6 Inhibitor of Polymerization:</b> Not pertinent</p> <p><b>6. WATER POLLUTION</b></p> <p><b>6.1 Aquatic Toxicity:</b> Currently not available</p> <p><b>6.2 Waterfowl Toxicity:</b> Currently not available</p> <p><b>6.3 Biological Oxygen Demand (BOD):</b> Currently not available</p> <p><b>6.4 Food Chain Concentration Potential:</b> None</p> <p><b>6.5 GESAMP Hazard Profile:</b> Not listed</p>	<p><b>7.1 Grades of Purity:</b> Technical</p> <p><b>7.2 Storage Temperature:</b> Ambient</p> <p><b>7.3 Inert Atmosphere:</b> No requirement</p> <p><b>7.4 Venting:</b> Open</p> <p><b>7.5 IMO Pollution Category:</b> Currently not available</p> <p><b>7.6 Ship Type:</b> Currently not available</p> <p><b>7.7 Barge Hull Type:</b> Currently not available</p> <p><b>8. HAZARD CLASSIFICATIONS</b></p> <p><b>8.1 49 CFR Category:</b> Not listed</p> <p><b>8.2 49 CFR Class:</b> Not pertinent</p> <p><b>8.3 49 CFR Package Group:</b> Not listed</p> <p><b>8.4 Marine Pollutant:</b> No</p> <p><b>8.5 NFPA Hazard Classification:</b> Not listed</p> <p><b>8.6 EPA Reportable Quantity:</b> Not listed</p> <p><b>8.7 EPA Pollution Category:</b> Not listed</p> <p><b>8.8 RCRA Waste Number:</b> Not listed</p> <p><b>8.9 EPA FWPCA List:</b> Not listed</p> <p><b>9. PHYSICAL &amp; CHEMICAL PROPERTIES</b></p> <p><b>9.1 Physical State at 15°C and 1 atm:</b> Solid</p> <p><b>9.2 Molecular Weight:</b> 128.11</p> <p><b>9.3 Boiling Point at 1 atm:</b> Not pertinent</p> <p><b>9.4 Freezing Point:</b> Not pertinent</p> <p><b>9.5 Critical Temperature:</b> Not pertinent</p> <p><b>9.6 Critical Pressure:</b> Not pertinent</p> <p><b>9.7 Specific Gravity:</b> 2.0 at 20°C (solid)</p> <p><b>9.8 Liquid Surface Tension:</b> Not pertinent</p> <p><b>9.9 Liquid Water Interfacial Tension:</b> Not pertinent</p> <p><b>9.10 Vapor (Gas) Specific Gravity:</b> Not pertinent</p> <p><b>9.11 Ratio of Specific Heats of Vapor (Gas):</b> Not pertinent</p> <p><b>9.12 Latent Heat of Vaporization:</b> Not pertinent</p> <p><b>9.13 Heat of Combustion:</b> Not pertinent</p> <p><b>9.14 Heat of Decomposition:</b> Not pertinent</p> <p><b>9.15 Heat of Solution:</b> Not pertinent</p> <p><b>9.16 Heat of Polymerization:</b> Not pertinent</p> <p><b>9.17 Heat of Fusion:</b> Currently not available</p> <p><b>9.18 Limiting Value:</b> Currently not available</p> <p><b>9.19 Reid Vapor Pressure:</b> Currently not available</p>
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
34	3.391		NOT		NOT		NOT
36	4.545						
38	5.699						
40	6.853						
42	8.007						
44	9.161		PERTINENT		PERTINENT		PERTINENT
46	10.320						
48	11.470						
50	12.620						
52	13.780		NOT		NOT		NOT
54	14.930						
56	16.090						
58	17.240						
60	18.390						
62	19.550						
64	20.700						
66	21.860						
68	23.010						
70	24.160						
72	25.320						
74	26.470						
76	27.630						
78	28.780						
80	29.930						
82	31.090						
84	32.240						