

# MATERIAL SAFETY DATA SHEET

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No. 95  
 POTASSIUM PERMANGANATE

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SECTION I. MATERIAL IDENTIFICATION				
MATERIAL NAME: <u>POTASSIUM PERMANGANATE</u> DESCRIPTION: A strong oxidizing agent. OTHER DESIGNATIONS: $KMnO_4$ , Chameleon Mineral, Condy's crystals, CAS #007 722 647 MANUFACTURER: Available from several suppliers, including: Ashland Oil Inc. PO Box 2458 Columbus, OH 43216				
SECTION II. INGREDIENTS AND HAZARDS		%	HAZARD DATA	
Potassium Permanganate		>95	No TLV Established Woman, Oral TDLo 2.4 mg/kg/D TFX:G.I. Tract Rat, Oral LD <sub>50</sub> 1090 mg/kg Rabbit, Oral LDLo 700 mg/kg	
SECTION III. PHYSICAL DATA				
Solubility in water @ 68 F, gm/L --- 65		Specific gravity -----	2.703	
		Melting point, deg C, decomp @ --	<240	
		Molecular weight -----	158.04	
Appearance and Odor: Dark purple or bronze-like crystals, odorless.				
SECTION IV. FIRE AND EXPLOSION DATA			LOWER	UPPER
Flash Point and Method	Autoignition Temp.	Flammability Limits In Air		
Extinguishing Media: Water spray or water. Suffocating type extinguishers may not be as effective as water because decomposition of $KMnO_4$ can release oxygen which supports combustion. Can be a fire hazard when brought into contact with organic or readily oxidizable material, either liquid or solid. Explosive in contact with sulfuric acid or hydrogen peroxide. Can increase the flammability of combustible materials. Firefighters should wear self-contained breathing apparatus.				
SECTION V. REACTIVITY DATA				
This is a stable material in closed containers at room temperature under normal storage and handling conditions. It does not undergo hazardous polymerization. A powerful oxidizing agent, it is readily decomposed by many reducing substances, such as ferrous salts, iodides, oxalates, etc., especially in the presence of an acid. Conc. acids will liberate oxygen; with HCl, chlorine is liberated. Incompatible under certain conditions with metallic powders, phosphorous, carbon, sulfur, hydrazine, metal hydrides, peroxides, alcohol, excessive heat etc. Violent reactions can occur with these and other combustible materials.				

SECTION VI. HEALTH HAZARD INFORMATION	TLV No TLV Established
<p>Inhalation of dust may cause irritation to nasal and respiratory passages. Eye contact with dusts may cause irritation, redness, tearing, and blurred vision. Prolonged or repeated contact with the skin can cause irritation, defatting, and dermatitis. Dilute soln are mildly irritating, but conc soln and dry crystals are highly corrosive. Ingestion can cause brown discoloration and burns of the mouth with edema of the glottis, G.I. irritation, nausea, vomiting, and diarrhea.</p> <p><b>FIRST AID:</b></p> <p><u>Eye Contact:</u> Flush with running water for 15 minutes, including under eyelids.</p> <p><u>Skin Contact:</u> Remove contaminated clothing. Wash exposed area with soap and water.</p> <p><u>Inhalation:</u> Remove to fresh air. Restore and/or support breathing as required.</p> <p><u>Ingestion:</u> Dilute with two glasses of water or milk. Induce vomiting or gastric lavage.</p> <p>Seek medical attention for further treatment, observation and support.</p>	

SECTION VII. SPILL, LEAK, AND DISPOSAL PROCEDURES
<p>Notify safety personnel of leaks or spills. Remove sources of heat or ignition. Avoid inhalation of dust or contact with solid or solution. Avoiding dusting, scoop up large spills promptly for recovery or disposal. Cover small spills or residue with a reducer (hypo, a bisulfate, or a ferrous salt but not carbon, sulfur or strong reducing agent) mix well and spray with water. To promote rapid reduction, add 3M-H<sub>2</sub>SO<sub>4</sub> with reducer above. Scoop into a container of water and neutralize with soda ash. Wash residue with soap solution containing some reducer.</p> <p><u>DISPOSAL:</u> Follow Federal, State, and Local regulations. EPA (CWA) Reportable Quantity (RQ) in event of spill is 100 lb. (44FR 8/29/79, pg 50777).</p> <p><u>Aquatic Toxicity:</u> Tlm 96:100-1 ppm.</p>

SECTION VIII. SPECIAL PROTECTION INFORMATION
<p>Provide general and local exhaust ventilation to maintain exposure level at a minimum. A NIOSH/MESA approved self-contained breathing apparatus with a full facepiece operated in pressure-demand mode is advised for uncontrolled dust or mist conditions. Avoid eye contact by use of chemical safety goggles. Wear protective clothing appropriate for the work situation to minimize skin contact. Rubber or polyvinyl chloride gloves recommended with long sleeve shirts and body covering clothing. Eyewash stations and washing facilities should be readily accessible.</p> <p><u>NOTE:</u> KMnO<sub>4</sub> contaminated clothing can be an increased fire hazard.</p>

SECTION IX. SPECIAL PRECAUTIONS AND COMMENTS
<p>Store in closed containers in a cool, dry, well-ventilated area away from sources of heat and ignition. Protect from physical damage and moisture. Separate from organic oxidizable, and reducing materials. Keep away from sulfuric acid and hydrogen peroxide. Fire resistant storage areas with concrete floors are recommended. Minimize skin contact by wearing appropriate protective clothing and practice good personal hygiene. Avoid breathing dust.</p> <p>DOT Classification: OXIDIZER LABEL: OXIDIZER</p> <p>DOT I.D. No. UN 1490</p>

<p>DATA SOURCE(S) CODE: 1,4-11,25,34,37,39</p> <p><small>Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Genium Publishing Corporation extends no warranties, makes no representations and assumes no responsibility, as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.</small></p>	<p>APPROVALS: MIS CRD <i>J. McNeil</i></p> <p>Industrial Hygiene and Safety <i>SW 10-9-81</i></p> <p>MEDICAL REVIEW: 21 October 1981</p>
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