



J.T. Baker Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865

24-Hour Emergency Telephone 908-859-2151  
National Response Center 800-424-8802  
Chemtrec 800-424-9300

National Response In Canada  
CANUTEC 613-996-6666

Outside U.S. and Canada  
Chemtrec 202-483-7616

**MATERIAL SAFETY DATA SHEET**

FICHE  
SIGNALÉTIQUE

HOJAS DE DATOS  
DE SEGURIDAD

**NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.**

P6005 -04  
Effective: 03/09/92

Potassium Permanganate

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J.T.BAKER INC., 222 Red School Lane, Phillipsburg, NJ 08865

SECTION I - PRODUCT IDENTIFICATION

Product Name: Potassium Permanganate  
Common Synonyms: Permanganic Acid, Potassium Salt  
Chemical Family: Manganese Compounds  
Formula:  $KMnO_4$   
Formula Wt.: 158.04  
CAS No.: 7722-64-7  
NIOSH/RTECS No.: SD6475000  
Product Use: Laboratory Reagent  
Product Codes: 3232,3228,3227

PRECAUTIONARY LABELING

BAKER SAF-T-DATA\* System

HEALTH <b>2</b> MODERATE	FLAMMABILITY <b>0</b> NONE	REACTIVITY  <b>3</b> SEVERE	CONTACT <b>2</b> MODERATE
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Laboratory Protective Equipment

 GOGGLES	 LAB COAT	 VENT HOOD	 PROPER GLOVES
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U.S. Precautionary Labeling

DANGER!

CAUSES IRRITATION. HARMFUL IF SWALLOWED OR INHALED. STRONG OXIDIZER. CONTACT WITH COMBUSTIBLE MATERIALS, FLAMMABLE MATERIALS, OR POWDERED METALS CAN CAUSE FIRE OR EXPLOSION.

Keep from contact with clothing and other combustible materials. Do not store near combustible materials. Avoid contact with eyes, skin, clothing. Keep in tightly closed container. Wash thoroughly after handling. In case of fire, soak with water. In case of spill, sweep up and remove. Flush spill area with water.





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SECTION IV - FIRE AND EXPLOSION HAZARD DATA  
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Flash Point (Closed Cup): N/A NFPA 704M Rating: 1-0-0 OXY

Autoignition Temperature: N/A

Flammable Limits: Upper - N/A Lower - N/A

Fire Extinguishing Media  
Use water spray.

Special Fire-Fighting Procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

Unusual Fire & Explosion Hazards

Strong oxidizer. Contact with combustible materials, flammable materials, or powdered metals can cause fire or explosion.

Toxic Gases Produced  
none identified

Explosion Data-Sensitivity to Mechanical Impact  
None identified.

Explosion Data-Sensitivity to Static Discharge  
None identified.

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SECTION V - HEALTH HAZARD DATA  
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Threshold Limit Value (TLV/TWA): 5 mg/m<sup>3</sup>

TLV is for Manganese, Dust and compounds, as Mn.

Short-Term Exposure Limit (STEL): Not Established

Permissible Exposure Limit (PEL): 5 mg/m<sup>3</sup>

PEL (Ceiling) is for Manganese compounds, as Mn.

Toxicity of components



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SECTION U - HEALTH HAZARD DATA (CONTINUED)

Oral Rat LD<sub>50</sub> for Potassium Permanganate 1090 mg/kg  
Subcutaneous Mouse LD<sub>50</sub> for Potassium Permanganate 500 mg/kg  
Carcinogenicity: NTP: No IARC: No Z List: No OSHA Reg: No

Carcinogenicity  
None identified.

Reproductive Effects  
None identified.

Effects of Overexposure

INHALATION: excessive inhalation is irritating, may cause perforated septum, and manganism  
SKIN CONTACT: severe irritation or burns  
EYE CONTACT: severe irritation or burns  
SKIN ABSORPTION: rapid absorption  
INGESTION: nausea, vomiting, gastrointestinal irritation, burns to mouth and throat  
CHRONIC EFFECTS: none identified

Target Organs  
respiratory system, central nervous system, blood, kidneys

Medical Conditions Generally Aggravated by Exposure  
damaged skin

Primary Routes of Entry  
ingestion, inhalation

Emergency and First Aid Procedures

INGESTION: CALL A PHYSICIAN. If swallowed, do NOT induce vomiting. If conscious, give large amounts of water. Follow with diluted vinegar, fruit juice or whites of eggs beaten with water.  
INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.



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SECTION V - HEALTH HAZARD DATA (CONTINUED)  
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SKIN CONTACT: In case of contact, immediately flush skin with plenty of water for at least 15 minutes.

EYE CONTACT: In case of eye contact, immediately flush with plenty of water for at least 15 minutes.

SARA/TITLE III HAZARD CATEGORIES and LISTS

Acute: Yes Chronic: Yes Flammability: Yes Pressure: No Reactivity: No

Extremely Hazardous Substance: No

CERCLA Hazardous Substance: Yes Contains Potassium Permanganate (RQ = 100 LBS)

SARA 313 Toxic Chemicals: No

TSCA Inventory: Yes

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SECTION VI - REACTIVITY DATA  
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Stability: Stable Hazardous Polymerization: Will not occur

Conditions to Avoid: heat

Incompatibles: organic materials, combustible materials, strong reducing agents, strong acids, peroxides, alcohols, chemically active metals

Decomposition Products: none identified

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SECTION VII - SPILL & DISPOSAL PROCEDURES  
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Steps to be Taken in the Event of a Spill or Discharge

Wear self-contained breathing apparatus and full protective clothing. Keep combustibles (wood, paper, oil, etc.) away from spilled material. With clean shovel, carefully place material into clean, dry container and cover; remove from area. Flush spill area with water.

Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.



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SECTION VII - SPILL & DISPOSAL PROCEDURES (CONTINUED)

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EPA Hazardous Waste Number: D001 (Ignitable Waste)

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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

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Ventilation: Use general or local exhaust ventilation to meet TLV requirements.

Respiratory Protection: None required where adequate ventilation conditions exist. If airborne concentration exceeds TLV, a dust/mist respirator is recommended. If concentration exceeds capacity of respirator, a self-contained breathing apparatus is advised.

Eye/Skin Protection: Safety goggles, uniform, butyl rubber gloves are recommended.

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SECTION IX - STORAGE AND HANDLING PRECAUTIONS

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SAF-T-DATA\* Storage Color Code: Yellow (reactive)

Storage Requirements

Keep container tightly closed. Store separately and away from flammable and combustible materials.

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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

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Domestic (D.O.T.)

Proper Shipping Name: Potassium permanganate  
Hazard Class: Oxidizer  
UN/NA: UN1490 Reportable Quantity: 100 LBS.  
Labels: OXIDIZER, CORROSIVE  
Regulatory References: 49CFR 172.101; 173.154; 173.194



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SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION (CONTINUED)  
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International (I.M.O.)

Proper Shipping Name: Potassium permanganate  
Hazard Class: 5.1 I.M.O. Page: 5067  
UN: UN1490 Marine Pollutants: No Packaging Group: II  
Labels: OXIDIZING AGENT, CORROSIVE  
Regulatory References: 49CFR 172.12(b); IMDG Code

AIR (I.C.A.O.)

Proper Shipping Name: Potassium permanganate  
Hazard Class: 5.1 Packaging Group: II  
UN: UN1490  
Labels: OXIDIZING AGENT, CORROSIVE  
Regulatory References: 49CFR 172.101; ICAO=== We believe the transportation data and references contained herein to be factual and the opinion of qualified experts. The data is meant as a guide to the overall classification of the product and is not package size specific, nor should it be taken as a warranty or representation for which the company assumes legal responsibility.=== The information is offered solely for your consideration, investigation, and verification. Any use of the information must be determined by the user to be in accordance with applicable Federal, State, and Local laws and regulations. See shipper requirements 49CFR 172.3 and employee training 49CFR 173.1.

U.S. Customs Harmonization Number: 2841600006  
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N/A = Not Applicable or Not Available  
N/E = Not Established  
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The information in this Material Safety Data Sheet meets the requirements of the United States OCCUPATIONAL SAFETY AND HEALTH ACT and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and the Canadian WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM. This document is intended only as a guide to the appropriate precautionary handling of the material by a person trained in, or supervised by a person trained in, chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material

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 or breathing chemical vapors/fumes.

Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, Baker cannot warn of all of the potential dangers of use or interaction with other chemicals or materials. Baker warrants that the chemical meets the specifications set forth on the label.

BAKER DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR PURPOSE.

The user should recognize that this product can cause severe injury and even death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Baker will periodically revise this Material Safety Data Sheet.

Note: CHEMTREC, CANUTEC, and NATIONAL RESPONSE CENTER emergency telephone numbers are to be used ONLY in the event of CHEMICAL EMERGENCIES involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to Customer Service (1-800-JTBAKER) for assistance.

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 Approved by Quality Assurance Department.