

BACHARACH, INC.
MSDS NO: 4099-1456
MATERIAL SAFETY DATA SHEET

This Material Safety Data Sheet has been prepared to comply with the EC Directive,
Canadian WHMIS and OSHA Hazard Communication Regulations.

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SECTION 1: IDENTIFICATION

PRODUCT NAME: POTASSIUM PERMANGANATE SOLUTION

PRODUCT NUMBER: 4050-0101 MSDS NUMBER: 4099-1456 REVISION NUMBER: 4

MSDS DATE OF PREPARATION/REVISION: 03-13-97

SECTION 2: COMPOSITION

COMPONENT	CAS#	PERCENTAGE	EXPOSURE LIMITS
Potassium Permanganate	7722-64-7	5	5 mg/m3 PEL-Ceiling 0.2 mg/m3 TLV-TWA
Water	7732-18-5	95	None Established

Note: The Permissible Exposure Limits (PEL) reported above are the pre-1989 limits that were reinstated by OSHA June 30, 1993 following a decision by the 11th Circuit Court of Appeals. These PELs are those now being enforced by Federal OSHA. Be aware that more restrictive exposure limits may be enforced by some states, agencies or other authorities. The enforced PEL may not be adequate to ensure worker safety, so Bacharach, Inc. recommends that the lowest recommended exposure limit always be observed as reasonable worker protection.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Dark purple liquid with no odor. May cause severe eye and skin irritation. May cause illness if inhaled or ingested. Oxidizer! May cause fire in contact with combustibles.

N/D=Not Determined

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N/A=Not Applicable

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ACUTE HEALTH HAZARDS:

EYE CONTACT: May cause severe irritation or burns.

SKIN CONTACT: May cause severe irritation or skin burns.

INHALATION: May cause irritation of the nose, throat and upper respiratory tract.

INGESTION: May cause burns to the gastrointestinal tract, nausea, vomiting, diarrhea.

CHRONIC HEALTH EFFECTS: Prolonged overexposure may cause manganism which is a nervous system disorder, symptoms include sluggishness, sleepiness, weakness of the legs. Advanced cases have shown symptoms of fixed facial expression, emotional disturbances, spastic gait, falling. Prolonged skin contact may cause dermatitis.

CARCINOGEN STATUS: This material is not listed as a carcinogen or suspect carcinogen by IARC, NTP or OSHA.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing nervous system disorders may be at increased risk from exposure.

SEE SECTION 11 - TOXICOLOGICAL INFORMATION FOR ADDITIONAL DATA
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SECTION 4: FIRST AID

EYE CONTACT: Flush thoroughly with copious amounts of running water for 15 minutes, lifting the lids occasionally. Get immediate medical attention.

SKIN CONTACT: Wash well with soap and water for 15 minutes. Remove contaminated clothing and launder before re-use. Get medical attention if irritation develops.

INHALATION: Remove victim to fresh air and give artificial respiration if needed. Get immediate medical attention.

INGESTION: Never give anything by mouth to an unconscious or convulsing person. Immediately give the victim 1-2 glasses of water to drink. Call poison control center or hospital emergency department immediately and follow their instructions.
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SECTION 5: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: N/A TEST METHOD: N/A
AUTOIGNITION TEMPERATURE: N/A

FLAMMABLE LIMITS: LEL: N/A UEL: N/A

EXTINGUISHING MEDIA: This material is not combustible. Use any media that is appropriate for the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear a NIOSH approved positive

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N/A=Not Applicable

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pressure self contained breathing apparatus and full protective clothing. Use water to keep exposed containers cool.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Strong Oxidizer! Contact with other materials, especially flammables and combustibles may cause fire or explosion. Greatly accelerates the rate of burning in other materials.

HAZARDOUS COMBUSTION PRODUCTS: Decomposes at elevated temperatures yielding oxygen.
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SECTION 6: ACCIDENTAL RELEASE MEASURES

Wear suitable protective equipment. Keep combustibles/flammables away from spill area. Absorb with sand, earth or other non-combustible absorbent, wash residual traces with water.
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SECTION 7: HANDLING AND STORAGE

WORK PRACTICES: Avoid contact with the eyes, skin & clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep containers tightly closed when not in use.

SPECIAL PRECAUTIONS: Oxidizer! Keep away from flammables and other oxidizable materials. Empty containers retain residues and may be hazardous-follow all precautions when handling.

STORAGE: Store in a well ventilated area, away from flammables and combustibles. Keep container tightly closed. Do not store on wooden floors.
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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Use general or local exhaust ventilation as needed to maintain concentration below the PEL.

RESPIRATORY PROTECTION: If concentration exceeds the exposure limits use an approved dust/mist respirator. At concentrations above 10 times the PEL an approved supplied air or self-contained respirator may be required.

GLOVES: Impervious such as PVC.

EYE PROTECTION: Chemical safety goggles and/or face shield recommended. Do not wear contact lenses.

OTHER PROTECTIVE EQUIPMENT: Protective apron or coveralls. Safety shower and eye wash in the work area.
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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Dark purple liquid, odorless. N/A

pH: Unknown SPECIFIC GRAVITY: >1.0
BOILING POINT: 100 C VAPOR PRESSURE: 23.7 mmHG @ 25C
MELTING POINT: 0 C VAPOR DENSITY: 0.7 (water)
SOLUBILITY IN WATER: Complete PERCENT VOLATILE: 95%
COEFFICIENT WATER/OIL: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Avoid heating to boiling point.

INCOMPATIBILITY: Water reactive materials, oxidizable materials especially in the presence of strong acids, flammable and combustible materials, halogenated compounds, sulfites, phosphites, oxalates.

HAZARDOUS DECOMPOSITION PRODUCTS: Potassium permanganate decomposes with evolution of oxygen at 240C.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: N/A

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA: The LD50 is reported to be 1090 mg/kg oral rat.

IRRITANCY DATA: This material may cause eye, skin and respiratory irritation.

SENSITIZATION: This material has not been reported to cause sensitization in animals or humans.

REPRODUCTIVE TOXICITY: This material has been reported to cause reproductive toxicity in laboratory animals.

TERATOGENICITY: This material not been reported to cause teratogenic effects in laboratory animals or humans.

MUTAGENICITY: This product has been found to be mutagenic in some test systems.

SYNERGISTIC EFFECTS: There are no chemicals known to cause any additive adverse health effects.

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SECTION 12: ECOLOGICAL INFORMATION

The ecological effects of this product have not been evaluated.
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SECTION 13: DISPOSAL

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

RCRA HAZARDOUS WASTE CODES: None
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SECTION 14: TRANSPORTATION DATA

US DOT SHIPPING NAME: POTASSIUM PERMANGANATE SOLUTION, 5.1, UN 1490, PG II
DOT LABELS REQUIRED: OXIDIZER
EMERGENCY RESPONSE GUIDE NUMBER: 140

IATA SHIPPING NAME: POTASSIUM PERMANGANATE SOLUTION, 5.1, UN 1490, PG II
IATA LABELS REQUIRED: OXIDIZER (CARGO AIRCRAFT 5-25 KG)
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SECTION 15: OTHER REGULATORY INFORMATION

SARA 311/312: Hazard Categories for SARA Section 311/312 Reporting:
Acute Health, Chronic Health, Fire Hazard

SARA 313: This product contains the following chemicals subject to Annual Release
Reporting Requirements under SARA Section 313 (40 CFR 372):
Potassium Permanganate 5%

CERCLA SECTION 103 REPORTABLE QUANTITY: 2,000 lbs. (Potassium Permanganate - 100 lbs)

CALIFORNIA PROPOSITION 65: This product contains the following substances known to
the State of California to cause Cancer and/or Reproductive Harm: None

US TOXIC SUBSTANCES CONTROL ACT: All of the components of this product are listed on
the EPA TSCA Inventory.

EUROPEAN INVENTORY OF COMMERCIAL CHEMICAL SUBSTANCES: All of the components of this
product are listed on the EINECS Inventory.

JAPAN MITI: All of the components of this product are existing chemical substances as
defined in the Chemical Substance Control Law.

CANADIAN ENVIRONMENTAL PROTECTION ACT: All of the components of this product are
listed on the Canadian Domestic Substances List.

CANADIAN WHMIS CLASSIFICATION: Class D - Division 2 - Subdivision B (Toxic Material
causing Other Chronic Effects), Class C (Oxidizing Material)

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EUROPEAN COMMUNITY LABELING CLASSIFICATION: Oxidizing

EUROPEAN COMMUNITY RISK AND SAFETY PHRASES: R8, S17, S2
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SECTION 16: OTHER INFORMATION

NFPA HAZARD RATING: HEALTH: 2 FIRE: 1 REACTIVITY: 1

DATE OF LATEST MSDS REVISION: 03-13-97

REVISION SUMMARY: Revised First Aid, Section 4, Transportation (ERG#), Section 14.
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The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of Bacharach, Inc., it is the users obligation to assure safe use of this product.