

**KEMTEC  
EDUCATIONAL  
CORPORATION**

**MATERIAL SAFETY DATA SHEET**  
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MSDS No. PP 480  
Effective Date January 8, 1998

**SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE**

|                   |  |
|-------------------|--|
| Product           | POTASSIUM CHROMATE                               |
| Chemical Synonyms | Dipotassium Chromate; Neutral Potassium Chromate |
| Formula           | K <sub>2</sub> CrO <sub>4</sub>                  |
| Unit Size         | up to 2.5 Kg.                                    |
| C.A.S. No.        | 7789-00-8  |

**CHEMTREC**  
800-424-9300  
Day 716-228-6177

**NFPA HAZARD RATING**  
LEAST SLIGHT MODERATE HIGH EXTREME  
0 1 2 3 4

|            |   |
|------------|---|
| Health     | 4 |
| Fire       | 0 |
| Reactivity | 2 |

**HMIS\***

**SECTION II INGREDIENTS OF MIXTURES**

| Principal Component(s) | %    | TLV Units      |
|------------------------|------|----------------|
| Potassium Chromate     | 100% | See Section V. |

**⚠ DANGER! ⚠ POISON! ⚠ STRONG OXIDIZER! HARMFUL IF INHALED,  
SWALLOWED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION. CANCER HAZARD.  
MAY CAUSE RASH OR ULCERS ON OPEN SKIN OR MUCOUS MEMBRANES.**

**SECTION III PHYSICAL DATA**

|                        |                           |   |                 |
|------------------------|---------------------------|---|-----------------|
| Melting Point (°F)     | 975°C (1787°F)            | Specific Gravity (H <sub>2</sub> O = 1) | 2.732 at 18°C   |
| Bolling Point (°F)     | Not applicable.           | Percent Volatile by Volume (%)          | Not applicable. |
| Vapor Pressure (mm Hg) | Not applicable.           | Evaporation Rate (-1)                   | Not applicable. |
| Vapor Density (Air=1)  | Not applicable.           |   |                 |
| Solubility in Water    | Soluble.                  |   |                 |
| Appearance & Odor      | Yellow crystals; no odor. |   |                 |

**SECTION IV FIRE AND EXPLOSION HAZARD DATA**

|                           |   |                                     |    |       |       |
|---------------------------|---|-------------------------------------|----|-------|-------|
| Flash Point (Method Used) | Non-flammable (NA).                                       | Flammable Limits in Air % by Volume | NA | Lower | Upper |
| Extinguisher Media        | Use any media suitable for extinguishing supporting fire. |                                     |    |       |       |

**SPECIAL FIREFIGHTING PROCEDURES**

If fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

(1993 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.6, GUIDE PAGE NO. 53)

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

Although not flammable, may intensify fire when in contact with combustible materials. Water runoff may contain chromium compounds and should not be allowed to enter sewers or waterways. Use a NIOSH/MSHA-approved, self-contained breathing apparatus if exposure to chromium dust or mist is possible.

D.O.T. TOXIC SOLID, INORGANIC, N.O.S., (POTASSIUM CHROMATE), 6.1, UN 3288

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

**SECTION V HEALTH HAZARD DATA**

**Threshold Limited Value** RECS No. GB2840000 Toxicity data: oil-mus LD50: 180 mg/kg. TWA: 0.5 mg (as Chromium) per m<sup>3</sup>. OSHA (ceiling): 0.1 mg (CrO<sub>3</sub>) per m<sup>3</sup>. (ACGIH 1992-93).

**Effects of Overexposure** **INHALATION:** Chromate dusts or mists can cause ulceration and perforation of nasal septum, as well as irritation and ulceration of the respiratory system. Overexposure to chromium compounds may cause lung cancer-risk. **INGESTION:** Can be harmful or fatal if swallowed. Toxic effects may not appear right away. A systemic poison; chromates are primarily toxic to the kidneys, liver, and gastrointestinal tract. Dusts and solutions can cause irritation. Contact with breaks in the skin can cause "chrome sores".

**Emergency and First Aid Procedures**

**SKIN:** Wash with soap and flush with plenty of water without delay. Remove contaminated clothing and wash before reuse. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention. **INGESTION:** If swallowed, if conscious, immediately have victim drink water and induce vomiting. Repeat until vomit fluid is clear. Never give anything by mouth to an unconscious person. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention for ingestion, inhalation, irritation, chemical or thermal burns or "chrome sores", (skin ulcers). Chromates are skin sensitizers. Skin absorption has been reported. **EYES:** Dusts, mists, or solutions can cause severe irritation and conjunctivitis.

**SECTION VI REACTIVITY DATA**

|           |          |   |                     |                                 |
|-----------|----------|---|---------------------|---------------------------------|
| Stability | Unstable | X | Conditions to Avoid | Excessive temperature and heat. |
|           | Stable   |   |                     |                                 |

**Incompatibility (Materials to Avoid)** Reducing agents. Most organic substances, bromides, iodides, chlorides, hypophosphites, sulfites, sulfides. Combustible materials.

**Hazardous Decomposition Products** Potassium oxide.

|                          |                     |                |                 |
|--------------------------|---------------------|----------------|-----------------|
| Hazardous Polymerization | Conditions to Avoid |                | Not applicable. |
|                          | May Occur           | Will Not Occur |                 |
|                          |                     | X              |                 |

**SECTION VII SPILL OR LEAK PROCEDURES**

**Steps to be taken in case material is released or spilled** Eliminate all ignition sources. Wear proper protective clothing. Sweep up and place in a suitable container. Flush spill area with water. Keep wash water out of sewers. Collect for disposal.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. Dispose of in an approved chemical landfill or contract with an approved and licensed disposal agency.

**SECTION VIII SPECIAL PROTECTION INFORMATION**

|                                       |  |              |                |  |
|---------------------------------------|--|--------------|----------------|--|
| Respiration Protection (Specify Type) | Not required in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator. |              |                |  |
| Ventilation                           | Local Exhaust  | Recommended. | Special        | No.  |
|                                       | Mechanical (General)   | Recommended. | Other          | Adequate to maintain below exposure limit. |
| Protective Gloves                     | Rubber.  |              | Eye Protection | Chemical safety glasses.                   |
| Other Protective Equipment            | Goggles, smock, apron, eye wash station, proper gloves, ventilation hood.  |              |                |  |

**SECTION IX SPECIAL PRECAUTIONS**

**Precautions to be Taken in Handling & Storing** Store in a cool, dry, well-ventilated area, away from reducing agents. Wash thoroughly after handling.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals. **NOTE:** Chromium compounds in the form of chromates and dichromates have been found to be mutagenic in bacterial and mammalian cells, including those of the Chinese hamster. Recent studies indicate a significant risk of lung cancer among long-term employees of the chromate producing industry.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

|                |             |                          |                             |    |
|----------------|-------------|--------------------------|-----------------------------|----|
| Revision No. 4 | Date 1/8/98 | Approved Michael Raszeja | Chemical Safety Coordinator | MR |
|----------------|-------------|--------------------------|-----------------------------|----|

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