# Potassium Dichromate, 0.5N (0.083M)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 04/22/2015  
Revision date: 01/31/2018  
Supersedes: 04/22/2015

## Version: 1.0

### SECTION 1: Identification

#### 1.1. Identification

**Product form:** Mixtures  
**Product name:** Potassium Dichromate, 0.5N (0.083M)  
**Product code:** LC19020

#### 1.2. Recommended use and restrictions on use

**Use of the substance/mixture:** For laboratory and manufacturing use only.  
**Recommended use:** Laboratory chemicals  
**Restrictions on use:** Not for food, drug or household use

#### 1.3. Supplier

LabChem Inc  
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court  
Zelienople, PA 16063 - USA  
T 412-826-5230 - F 724-473-0647  
info@labchem.com - www.labchem.com

#### 1.4. Emergency telephone number

**Emergency number:** CHEMTREC: 1-800-424-9300 or 011- 703-527-3887

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

**GHS-US classification**

- **Acute toxicity (oral)**  
  Category 4  
  H302 Harmful if swallowed

- **Acute toxicity (inhalation:dust,mist)**  
  Category 4  
  H332 Harmful if inhaled

- **Skin corrosion/irritation**  
  Category 2  
  H315 Causes skin irritation

- **Serious eye damage/eye irritation Category 2A**  
  H319 Causes serious eye irritation

- **Respiratory sensitization, Category 1**  
  H334 May cause an allergy or asthma symptoms or breathing difficulties if inhaled

- **Skin sensitization, Category 1**  
  H317 May cause an allergic skin reaction

- **Germ cell mutagenicity Category 1B**  
  H340 May cause genetic defects

- **Carcinogenicity Category 1B**  
  H350 May cause cancer

- **Reproductive toxicity Category 1B**  
  H360 May damage fertility or the unborn child

- **Specific target organ toxicity (repeated exposure) Category 1**  
  H372 Causes damage to organs (blood, kidneys, liver) through prolonged or repeated exposure

- **Hazardous to the aquatic environment - Acute Hazard Category 3**  
  H402 Harmful to aquatic life

- **Hazardous to the aquatic environment - Chronic Hazard Category 3**  
  H412 Harmful to aquatic life with long lasting effects

*Full text of H statements: see section 16*

#### 2.2. GHS Label elements, including precautionary statements

**GHS-US labeling**

- **Hazard pictograms (GHS-US):**
  
  ![GHS07](https://via.placeholder.com/150)  
  ![GHS08](https://via.placeholder.com/150)

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EN (English US)  
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Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H302+H332 - Harmful if swallowed or if inhaled
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled
H340 - May cause genetic defects
H350 - May cause cancer
H360 - May damage fertility or the unborn child
H372 - Causes damage to organs (blood, kidneys, liver) through prolonged or repeated exposure
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe mist.
P264 - Wash exposed skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P284 - Wear respiratory protection.
P303+P361+P335 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P363 - Wash contaminated clothing before reuse.
P333+P335 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P405 - Store locked up.
P501 - Dispose of contents/container to comply with local, state and federal regulations.

2.3. Other hazards which do not result in classification
Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS-No.) 7732-18-5</td>
<td>97.59</td>
<td>Not classified</td>
</tr>
<tr>
<td>Potassium Dichromate</td>
<td>(CAS-No.) 7778-50-9</td>
<td>2.41</td>
<td>Ox. Sol. 2, H272, Acute Tox. 3 (Oral), H301, Acute Tox. 4 (Dermal), H312, Acute Tox. 2 (Inhalation), H330, Skin Corr. 1B, H314, Resp. Sens. 1, H334, Skin Sens. 1, H317, Mut. 1B, H340, Carc. 1B, H350, Repr. 1B, H360, STOT RE 1, H372, Aquatic Acute 1, H400, Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures
First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
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First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

First-aid measures after skin contact: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)
Symptoms/effects: May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs (blood, kidneys, liver) through prolonged or repeated exposure.
Symptoms/effects after inhalation: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Symptoms/effects after skin contact: Causes skin irritation.
Symptoms/effects after eye contact: Causes serious eye irritation.
Symptoms/effects after ingestion: Nausea. Vomiting. Swallowing a small quantity of this material will result in serious health hazard.

4.3. Immediate medical attention and special treatment, if necessary
Obtain medical assistance.

SECTION 5: Fire-fighting measures
5.1. Suitable (and unsuitable) extinguishing media
Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical
No additional information available

5.3. Special protective equipment and precautions for fire-fighters
Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Protective equipment: Safety glasses. Gloves.
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection.
Emergency procedures: Ventilate area.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Do not breathe mist.
Hygiene measures: Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep container closed when not in use.
Incompatible products: Strong reducing agents. combustible materials.
Incompatible materials: Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th></th>
<th>ACGIH ACGIH TWA (mg/m³)</th>
<th>OSHA OSHA PEL (TWA) (mg/m³)</th>
<th>IDLH US IDLH (mg/m³)</th>
<th>NIOSH NIOSH REL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Potassium Dichromate (7778-50-9)</strong></td>
<td>0.05 mg/m³ as Cr</td>
<td>0.005 mg/m³ as Cr(VI)</td>
<td>15 mg/m³ as Cr(VI)</td>
<td>0.001 mg/m³ as Cr</td>
</tr>
<tr>
<td><strong>Water (7732-18-5)</strong></td>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls
Appropriate engineering controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation. Material should be handled in a laboratory hood whenever possible.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Hand protection:
Wear protective gloves.

Eye protection:
Chemical goggles or safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
Gas mask

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>orange</td>
</tr>
<tr>
<td>Odor</td>
<td>None.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
</tbody>
</table>
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Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Non flammable.
Vapor pressure : No data available
Relative vapor density at 20 °C : No data available
Relative density : No data available
Specific gravity / density : 1.01 g/ml
Solubility : Soluble in water.
Log Pow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity, kinematic : 0.99 cSt
Viscosity, dynamic : No data available
Explosion limits : No data available
Explosive properties : No data available
Oxidizing properties : No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials
Strong reducing agents. combustible materials.

10.6. Hazardous decomposition products
Contains hexavalent chromium.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Skin and eye contact
Acute toxicity : Oral: Harmful if swallowed. Inhalation:dust,mist: Harmful if inhaled.

<table>
<thead>
<tr>
<th>Compound</th>
<th>LD50 oral rat</th>
<th>LD50 dermal rabbit</th>
<th>LC50 inhalation rat (mg/l)</th>
<th>ATE US (oral)</th>
<th>ATE US (dermal)</th>
<th>ATE US (vapors)</th>
<th>ATE US (dust, mist)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Dichromate, 0.5N (0.083M)</td>
<td>1037 mg/kg</td>
<td>47718 mg/kg</td>
<td>3.73 mg/l/4h</td>
<td>1037 mg/kg body weight</td>
<td>47718 mg/kg body weight</td>
<td>3.73 mg/l/4h</td>
<td>3.73 mg/l/4h</td>
</tr>
<tr>
<td>Potassium Dichromate (7778-50-9)</td>
<td>25 mg/kg</td>
<td>1150 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th><strong>Potassium Dichromate (7778-50-9)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>0.09 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>25 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>1150 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (gases)</td>
<td>100 ppmV/4h</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
<td>0.09 mg/l/4h</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
<td>0.09 mg/l/4h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Water (7732-18-5)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>≥ 90000 mg/kg</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>90000 mg/kg body weight</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye irritation.
Respiratory or skin sensitization: May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity: May cause genetic defects.
Carcinogenicity: May cause cancer.

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In OSHA Specifically Regulated Carcinogen list: Yes
Reproductive toxicity: May damage fertility or the unborn child.
Specific target organ toxicity – single exposure: Not classified
Specific target organ toxicity – repeated exposure: Causes damage to organs (blood, kidneys, liver) through prolonged or repeated exposure.
Aspiration hazard: Not classified
Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met. Harmful if swallowed. Harmful if inhaled.
Symptoms/effects after inhalation: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Symptoms/effects after skin contact: Causes skin irritation.
Symptoms/effects after eye contact: Causes serious eye irritation.
Symptoms/effects after ingestion: Nausea. Vomiting. Swallowing a small quantity of this material will result in serious health hazard.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water: Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

**Potassium Dichromate, 0.5N (0.083M)**

<table>
<thead>
<tr>
<th><strong>EC50 Daphnia 1</strong></th>
<th>58.1 mg/l 48 h</th>
</tr>
</thead>
</table>

**Potassium Dichromate (7778-50-9)**

<table>
<thead>
<tr>
<th><strong>LC50 fish 1</strong></th>
<th>12.3 mg/l 96 hr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EC50 Daphnia 1</strong></td>
<td>1.4 mg/l 24 hr.</td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

**Potassium Dichromate, 0.5N (0.083M)**

Persistence and degradability: Not readily biodegradable in water. May cause long-term adverse effects in the environment.

**Potassium Dichromate (7778-50-9)**

Persistence and degradability: Not established.

**Water (7732-18-5)**

Persistence and degradability: Not established.

### 12.3. Bioaccumulative potential

**Potassium Dichromate, 0.5N (0.083M)**

Bioaccumulative potential: Not established.
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Bioaccumulative potential
Not established.

Bioaccumulative potential
Not established.

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

<table>
<thead>
<tr>
<th>Potassium Dichromate, 0.5N (0.083M)</th>
<th>Immediate (acute) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA Section 311/312 Hazard Classes</td>
<td>Delayed (chronic) health hazard</td>
</tr>
</tbody>
</table>

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Potassium Dichromate</th>
<th>CAS-No. 7778-50-9</th>
<th>2.41%</th>
</tr>
</thead>
</table>

15.2. International regulations

CANADA

<table>
<thead>
<tr>
<th>Potassium Dichromate (7778-50-9)</th>
<th>Listed on the Canadian DSL (Domestic Substances List)</th>
</tr>
</thead>
</table>

EU-Regulations
No additional information available

National regulations

<table>
<thead>
<tr>
<th>Potassium Dichromate (7778-50-9)</th>
<th>Listed on the Canadian IDL (Ingredient Disclosure List)</th>
</tr>
</thead>
</table>

15.3. US State regulations

This product can expose you to Potassium Dichromate, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.
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Potassium Dichromate (7778-50-9)

<table>
<thead>
<tr>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>U.S. - California - Proposition 65 - Developmental Toxicity</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</th>
<th>No significant risk level (NSRL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 16: Other information**

Revision date : 01/31/2018
Other information : None.

Full text of H-phrases: see section 16:

- **H272** May intensify fire; oxidizer
- **H301** Toxic if swallowed
- **H302** Harmful if swallowed
- **H312** Harmful in contact with skin
- **H314** Causes severe skin burns and eye damage
- **H315** Causes skin irritation
- **H317** May cause an allergic skin reaction
- **H319** Causes serious eye irritation
- **H330** Fatal if inhaled
- **H332** Harmful if inhaled
- **H334** May cause an allergy or asthma symptoms or breathing difficulties if inhaled
- **H340** May cause genetic defects
- **H350** May cause cancer
- **H360** May damage fertility or the unborn child
- **H372** Causes damage to organs through prolonged or repeated exposure
- **H400** Very toxic to aquatic life
- **H402** Harmful to aquatic life
- **H410** Very toxic to aquatic life with long lasting effects
- **H412** Harmful to aquatic life with long lasting effects

**NFPA health hazard** : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

**NFPA fire hazard** : 0 - Materials that will not burn under typical dire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

**NFPA reactivity** : 0 - Material that in themselves are normally stable, even under fire conditions.
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<table>
<thead>
<tr>
<th>Hazard Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health : 2 Moderate Hazard</td>
<td>Temporary or minor injury may occur</td>
</tr>
<tr>
<td>Health * : Chronic (long-term) health effects may result from repeated overexposure</td>
<td></td>
</tr>
<tr>
<td>Flammability : 0 Minimal Hazard</td>
<td>Materials that will not burn</td>
</tr>
<tr>
<td>Physical : 0 Minimal Hazard</td>
<td>Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.</td>
</tr>
</tbody>
</table>

**Personal protection**

- **G**
  - Safety glasses, Gloves, Vapor respirator

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