1. PRODUCT AND COMPANY IDENTIFICATION

Product Name | Potassium dichromate
---|---
Cat No. | AC197760000; AC197760010; AC197760050; AC197765000
Synonyms | Potassium bichromate.; Dipotassium dichromate; Dichromic acid, dipotassium salt
Recommended Use | Laboratory chemicals

Company | Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Entity / Business Name | Emergency Telephone Number
---|---
Acros Organics | For information in the US, call: 001-800-ACROS-01
One Reagent Lane | For information in Europe, call: +32 14 57 52 11
Fair Lawn, NJ 07410 | Emergency Number, Europe: +32 14 57 52 99
Tel: (201) 796-7100 | Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300
CHEMTREC Phone Number, Europe: 001-703-527-3887

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview
Oxidizer: Contact with combustible/organic material may cause fire. Cancer hazard. Toxic. May be fatal if inhaled, absorbed through skin, or swallowed. Causes burns by all exposure routes. May cause harm to the unborn child. May cause heritable genetic damage. May impair fertility. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Appearance | Orange
Physical State | Solid
odor | odorless

Target Organs | Eyes, Skin, Respiratory system, Reproductive System, Liver, Kidney, Blood

Potential Health Effects
Acute Effects
Principle Routes of Exposure

Eyes
May cause irritation. Causes burns.

Skin
May be fatal if absorbed through skin. Causes burns.

Inhalation
May be fatal if inhaled. Causes burns.

Ingestion
May be fatal if swallowed. Causes burns. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects
Cancer hazard. Toxic: danger of serious damage to health by prolonged exposure through inhalation. Repeated or prolonged contact causes sensitization, asthma and eczemas.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Haz/Non-haz</th>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Potassium dichromate</td>
<td>7778-50-9</td>
<td>&gt;95</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

**Skin Contact**
Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

**Inhalation**
Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

**Ingestion**
Do not induce vomiting. Call a physician or Poison Control Center immediately.

**Notes to Physician**
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Flash Point**
No information available.

**Method**
No information available.

**Autoignition Temperature**
No information available.

**Explosion Limits**
Upper
No data available

Lower
No data available

**Suitable Extinguishing Media**
Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

**Unsuitable Extinguishing Media**
No information available.

**Hazardous Combustion Products**
No information available.
6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid dust formation.

Environmental Precautions
Should not be released into the environment.

Methods for Containment and Clean Up
Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep away from clothing and other combustible materials. Avoid dust formation.

7. HANDLING AND STORAGE

Handling
Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Keep away from clothing and other combustible materials. Avoid dust formation. Do not breathe vapors/dust. Do not ingest.

Storage
Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures
Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>TWA: 0.05 mg/m³</td>
<td>(Vacated) Ceiling: 0.1 mg/m³</td>
<td>IDLH: 15 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TWA: 0.001 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Quebec</th>
<th>Mexico OEL (TWA)</th>
<th>Ontario TWAEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>TWA: 0.05 mg/m³</td>
<td>TWA: 0.5 mg/m³</td>
<td>TWA: 0.05 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 0.05 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid
Appearance: Orange
odor: odorless
Odor Threshold: No information available.
pH: 4 (5 % Solution)
Vapor Pressure: No information available.
Vapor Density: No information available.
Viscosity: No information available.
Boiling Point/Range: 500°C / 932°F
Melting Point/Range: 398°C / 748.4°F
Decomposition temperature: > 500°C
Flash Point: No information available.
Evaporation Rate: No information available.
Specific Gravity: 2.676
Solubility: Partly soluble in water
log Pow: No data available
Molecular Weight: 294.19
Molecular Formula: Cr2 K2 O7

10. STABILITY AND REACTIVITY

Stability: Oxidizer: Contact with combustible/organic material may cause fire.

Incompatible Materials

Strong oxidizing agents, Reducing agents, Acids, Strong bases, Acid anhydrides

Hazardous Decomposition Products

None under normal use conditions

Hazardous Polymerization

Hazardous polymerization does not occur.

Hazardous Reactions

None under normal processing.

### 11. TOXICOLOGICAL INFORMATION

#### Acute Toxicity

**Component Information**

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation (Dust)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>25 mg/kg (Rat)</td>
<td>1150 mg/kg (Rabbit)</td>
<td>0.09 mg/L/4h (Rat)</td>
</tr>
</tbody>
</table>

**Irritation**

Causes burns by all exposure routes

**Toxicologically Synergistic Products**

No information available.

#### Chronic Toxicity

**Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>A1</td>
<td>Group 1</td>
<td>Not listed</td>
<td>X</td>
<td>A1</td>
</tr>
</tbody>
</table>

IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans

**Sensitization**

No information available.

**Mutagenic Effects**

May cause heritable genetic damage

**Reproductive Effects**

May impair fertility.

**Developmental Effects**

Component substance is listed on California Proposition 65 as a developmental hazard.

**Teratogenicity**

May cause harm to the unborn child.

**Other Adverse Effects**

See actual entry in RTECS for complete information.

**Endocrine Disruptor Information**

No information available
12. ECOLOGICAL INFORMATION

Ecotoxicity
Do not empty into drains.

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae</th>
<th>Freshwater Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>Not listed</td>
<td>15.41-30.36 mg/L LC50 96 h</td>
<td>Not listed</td>
<td>EC50: 1.4 mg/L 24h</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14-20.9 mg/L LC50 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>113.6-155.7 mg/L LC50 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>139 mg/L LC50 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>320 mg/L LC50 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>65.6-137.6 mg/L LC50 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.3 mg/L LC50 96 h</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>21.209-30.046 mg/L LC50 96 h</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>23-41.2 mg/L LC50 96 h</td>
<td></td>
<td></td>
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<td>24.81-34.55 mg/L LC50 96 h</td>
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<td>26 mg/L LC50 96 h</td>
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<td>139 mg/L LC50 96 h</td>
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<tr>
<td></td>
<td></td>
<td>26 mg/L LC50 96 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability
No information available

Bioaccumulation/ Accumulation
No information available

Mobility
No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT

<table>
<thead>
<tr>
<th>UN-No</th>
<th>UN3087</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>OXIDIZING SOLID, TOXIC, N.O.S.</td>
</tr>
<tr>
<td>Proper technical name</td>
<td>Potassium dichromate</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>5.1</td>
</tr>
<tr>
<td>Subsidiary Hazard Class</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing Group</td>
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TDG

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<tr>
<th>UN-No</th>
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<tbody>
<tr>
<td>Proper Shipping Name</td>
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<td>Hazard Class</td>
<td>5.1</td>
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<tr>
<td>Subsidiary Hazard Class</td>
<td>6.1</td>
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<tr>
<td>Packing Group</td>
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</table>
14. TRANSPORT INFORMATION

IATA

<table>
<thead>
<tr>
<th>UN-No</th>
<th>UN3087</th>
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</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Oxidizing solid, toxic, n.o.s</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>5.1</td>
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<tr>
<td>Subsidiary Hazard Class</td>
<td>6.1</td>
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<tr>
<td>Packing Group</td>
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</table>

IMDG/IMO

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<thead>
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<th>UN-No</th>
<th>UN3087</th>
</tr>
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<tbody>
<tr>
<td>Proper Shipping Name</td>
<td>Oxidizing solid, toxic, n.o.s</td>
</tr>
<tr>
<td>Hazard Class</td>
<td>5.1</td>
</tr>
<tr>
<td>Subsidiary Hazard Class</td>
<td>6.1</td>
</tr>
<tr>
<td>Packing Group</td>
<td>II</td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>CHINA</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>R</td>
<td>X</td>
<td>-</td>
<td>231-908-6</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend:
- X - Listed
- E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
- F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P - Indicates a commenced PMN substance
- R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
- T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
- XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
- Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
- Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA 12(b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>Section 6</td>
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</table>

SARA 313

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Potassium dichromate 7778-50-9 >95 0.1

SARA 311/312 Hazardous Categorization

- Acute Health Hazard: Yes
- Chronic Health Hazard: Yes
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: Yes

Clean Water Act

<table>
<thead>
<tr>
<th>Component</th>
<th>CWA - Hazardous Substances</th>
<th>CWA - Reportable Quantities</th>
<th>CWA - Toxic Pollutants</th>
<th>CWA - Priority Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>X</td>
<td>10 lb</td>
<td>X</td>
<td>-</td>
</tr>
</tbody>
</table>

Clean Air Act

Not applicable

<table>
<thead>
<tr>
<th>Component</th>
<th>HAPS Data</th>
<th>Class 1 Ozone Depletors</th>
<th>Class 2 Ozone Depleters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

OSHA

Not applicable

<table>
<thead>
<tr>
<th>Component</th>
<th>Specifically Regulated Chemicals</th>
<th>Highly Hazardous Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>5 µg/m³ TWA</td>
<td>2.5 µg/m³ Action Level</td>
</tr>
</tbody>
</table>

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

<table>
<thead>
<tr>
<th>Component</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA EHS RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>10 lb</td>
<td>-</td>
</tr>
</tbody>
</table>

California Proposition 65

This product contains the following Proposition 65 chemicals:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>California Prop. 65</th>
<th>Prop 65 NSRL</th>
</tr>
</thead>
</table>
| Potassium dichromate | 7778-50-9 | Carcinogen  
Developmental  
Female Reproductive  
Male Reproductive | -            |

State Right-to-Know

<table>
<thead>
<tr>
<th>Component</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium dichromate</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

U.S. Department of Transportation

Reportable Quantity (RQ): Y  
DOT Marine Pollutant: N  
DOT Severe Marine Pollutant: N
U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade
No information available

Canada
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
C  Oxidizing materials
D1A Very toxic materials
D2A Very toxic materials
D2B Toxic materials
E  Corrosive material

16. OTHER INFORMATION

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date
08-Jul-2009

Print Date
14-Sep-2012

Revision Summary
(M)SDS sections updated 3 11
Disclaimer
The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS