Material Safety Data Sheet
Potassium perchlorate

ACC# 81883

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Potassium perchlorate  
**Catalog Numbers:** AC221360000, AC221360250, AC221365000  
**Synonyms:** None.  
**Company Identification:**  
Acros Organics N.V.  
One Reagent Lane  
Fair Lawn, NJ 07410  
**For information in North America, call:** 800-ACROS-01  
**For emergencies in the US, call CHEMTREC:** 800-424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7778-74-7</td>
<td>Potassium perchlorate</td>
<td>100</td>
<td>231-912-9</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**

Appearance: white solid.  
**Danger!** Strong oxidizer. Contact with other material may cause a fire. Causes respiratory tract irritation. Causes eye and skin irritation. May cause blood abnormalities. May cause kidney damage. Hygroscopic (absorbs moisture from the air).  
**Target Organs:** Blood, kidneys, thyroid.

**Potential Health Effects**  
**Eye:** Causes eye irritation.  
**Skin:** Causes skin irritation.  
**Ingestion:** May cause irritation of the digestive tract. May cause kidney damage. In higher doses as an antithyroid agent, it has been associated with gastric irritation, nausea, vomiting, fever, skin rashes, lymphadenopathy, nephrotic syndrome, and rarely leukopenia, agranulocytosis, pancytopenia, and fatal aplastic anemia.  
**Inhalation:** Causes respiratory tract irritation.  
**Chronic:** Prolonged or repeated skin contact may cause dermatitis. May cause anemia and other blood cell abnormalities.

Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Oxidizer. Greatly increases the burning rate of combustible materials.

Extinguishing Media: Use water spray to cool fire-exposed containers. For large fires, use water spray or fog. For small fires, use dry chemical, carbon dioxide, halon, or water spray.

Flash Point: Not applicable.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 0; Instability: ; Special Hazard: OX

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Do not store near combustible materials. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium perchlorate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Potassium perchlorate: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment
Eyes: 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: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Appearance: white
Odor: Odorless
pH: Not available.
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: 400 deg C (dec)
Decomposition Temperature: > 400 deg C
Solubility: 17 G/L (20°C)
Specific Gravity/Density: 2.52
Molecular Formula: C1K04
Molecular Weight: 138.55

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: High temperatures.
Incompatibilities with Other Materials: Aluminum + aluminum fluoride, aluminum + barium nitrate + potassium nitrate, aluminum powder + titanium dioxide, barium chromate + tungsten and/or titanium, boron + magnesium + silicon rubber, combustible materials, ethanol, ferrocenium diamminetetrakis (thiocyanato-N) chromate(1-), lavtose, metal powders, potassium hexacyancobaltate, reductants, sulfur, titanium hydride.
Hazardous Decomposition Products: Hydrogen chloride, oxides of potassium, oxides of chlorine.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: 
CAS# 7778-74-7: SC9700000
LD50/LC50: 
Not available.

Carcinogenicity:  
CAS# 7778-74-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.  
Teratogenicity: No data available.  
Reproductive Effects: No data available.  
Neurotoxicity: No data available.  
Mutagenicity: No data available.  
Other Studies: No data available.

Section 12 - Ecological Information

Ecotoxicity: No data available. Fish toxicity: LC50 golden orfe 1850/2800 mg/LLC100 golden orfe 3550/4000 mg/L  
Environmental: No information available.  
Physical: No information available.  
Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.  
RCRA P-Series: None listed.  
RCRA U-Series: None listed.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>US DOT</th>
<th>Canada TDG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Name:</td>
<td>POTASSIUM PERCHLORATE, SOLID</td>
<td>POTASSIUM PERCHLORATE</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>5.1</td>
<td>5.1</td>
</tr>
<tr>
<td>UN Number:</td>
<td>UN1489</td>
<td>UN1489</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>II</td>
<td>II</td>
</tr>
</tbody>
</table>

Section 15 - Regulatory Information

US FEDERAL

TSCA  
CAS# 7778-74-7 is listed on the TSCA inventory.

Health & Safety Reporting List  
None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules  
None of the chemicals in this product are under a Chemical Test Rule.

Section 12b  
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs
None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.

SARA Codes
CAS # 7778-74-7: acute, flammable, reactive.

Section 313
No chemicals are reportable under Section 313.

Clean Air Act:
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.

Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.

STATE
CAS# 7778-74-7 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

California Prop 65
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols:
X N O

Risk Phrases:
R 22 Harmful if swallowed.
R 9 Explosive when mixed with combustible material.

Safety Phrases:
S 13 Keep away from food, drink and animal feeding stuffs.
S 22 Do not breathe dust.
S 27 Take off immediately all contaminated clothing.

WGK (Water Danger/Protection)
CAS# 7778-74-7: 1

Canada - DSL/NDSL
CAS# 7778-74-7 is listed on Canada's DSL List.

Canada - WHMIS
This product does not have a WHMIS classification.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 9/02/1997
Revision #4 Date: 7/01/2004

The information above is believed to be accurate and represents the best information currently available to us. However, we make
no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no
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possibility of such damages.