SECTION 1: Identification

1. Product identifier: Potassium Perchlorate
   
   CAS No.: 7778-74-7

   Other means of identification
   Product No.: 1489

   Recommended use and restriction on use
   Recommended use: Not available.
   Restrictions on use: Not known.

   Manufacturer/Importer/Supplier/Distributor information
   
   Distributor
   Company Name: Fireworks Cookbook, LLC
   Address: 1134 GA HWY 30W
             Americus GA 31719
   Telephone: Customer Service: (229)400-9078
   Fax: 229.400.9078
   Contact Person: Environmental Health & Safety
   e-mail: info@fireworkscookbook.com

   Emergency telephone number:
   INFOTRAC 1-800-535-5053

SECTION 2: Hazards identification

2.1. Hazard classification

   Physical hazards
   Oxidizing solids Category 1

   Health hazards
   Acute toxicity (Oral) Category 4

2.2. Label elements

   Hazard pictograms
   
   ! 

   Signal word:
   Danger
Hazard statements:
May cause fire or explosion; strong oxidizer
Harmful if swallowed

Precautionary statements:
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep/Store away from clothing/ other combustible materials
Take any precaution to avoid mixing with combustibles
Wear protective gloves/protective clothing/eye protection/face protection
Wear fire/flame resistant/retardant clothing
Skin
IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes
Ingestion
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Fire
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion
In case of fire: Use CO2, dry chemical, or foam for extinction
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified

SECTION 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Perchlorate</td>
<td>7778-74-7</td>
<td>&gt;95</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

Eye Contact  Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.
Inhalation Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.
Ingestion Never give anything by mouth to an unconscious person. Clean mouth with water. Get medical attention.
SECTION 5: Firefighting measures

General fire hazards: Oxidizing material. In case of fire and/or explosion do not breathe fumes.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical:

Strong oxidizer - contact with other material may cause fire. Explosion risk in case of fire.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:

Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Special protective equipment for fire-fighters:

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Keep unauthorized personnel away. Ventilate closed spaces before entering them. Use personal protective equipment. See Section 8 of the MSDS for Personal Protective Equipment.

Methods and material for containment and cleaning up:

Remove sources of ignition. Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination. Use only non-sparking tools.

Notification Procedures:

Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.

Environmental precautions:

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.
SECTION 7: Handling and storage

Precautions for safe handling:
Do not taste or swallow. Wash hands thoroughly after handling. Avoid contact with eyes. Keep away from food, drink and animal feeding stuffs. Keep away from combustible material. Do not eat, drink or smoke when using the product. Do not smoke, use open fire or other sources of ignition. Use personal protective equipment as required. See Section 8 of the MSDS for Personal Protective Equipment. Observe good industrial hygiene practices. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Take any precaution to avoid mixing with combustibles. Wear fire/flame resistant/retardant clothing.

Conditions for safe storage, including any incompatibilities:
Keep container tightly closed in a cool, well-ventilated place. Keep container dry. Store away from incompatible materials. Eliminate sources of ignition.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits
None of the components have assigned exposure limits.

Appropriate engineering controls
No data available.

Individual protection measures, such as personal protective equipment

General information:
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

Eye/face protection:
Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection
Hand protection:
Chemical resistant gloves

Other:
Wear suitable protective clothing.

Respiratory protection:
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Hygiene measures:
Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Avoid contact with eyes, skin, and clothing.
## SECTION 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance Physical state:</strong></td>
<td>Solid</td>
</tr>
<tr>
<td><strong>Form:</strong></td>
<td>Powder.</td>
</tr>
<tr>
<td><strong>Color:</strong></td>
<td>White</td>
</tr>
<tr>
<td><strong>Odor:</strong></td>
<td>Odorless</td>
</tr>
<tr>
<td><strong>Odor threshold:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>pH:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Melting point/freezing point:</strong></td>
<td>610 °C</td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Flash Point:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Evaporation rate:</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas):</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Upper/lower limit on flammability or explosive limits</strong></td>
<td></td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flammability limit - lower (%)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Explosive limit - upper (%)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapor pressure:</td>
<td>No data available.</td>
</tr>
<tr>
<td>Vapor density:</td>
<td>4.8 AIR=1</td>
</tr>
<tr>
<td>Relative density:</td>
<td>2.52 (20 °C)</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
</tbody>
</table>
**SECTION 10: Stability and reactivity**

**Reactivity:**
No dangerous reaction known under conditions of normal use.

**Chemical stability:**
Material is stable under normal conditions.

**Possibility of hazardous reactions:**
Hazardous polymerization does not occur.

**Conditions to avoid:**
Heat, sparks, flames. Contact with incompatible materials.

**Incompatible materials:**

**Hazardous decomposition products:**
Chlorine. Oxides of potassium.

**SECTION 11: Toxicological information**

**Information on likely routes of exposure**
- **Ingestion:** Harmful if swallowed.
- **Inhalation:** May be harmful if inhaled
- **Skin contact:** May cause irritation
- **Eye contact:** May cause irritation

**Information on toxicological effects**

**Acute toxicity (list all possible routes of exposure)**
- **Oral Product:** No data available.
- **Dermal Product:** No data available.
- **Inhalation Product:** No data available.
- **Repeated dose toxicity Product:** No data available.

**Skin corrosion/irritation Product:** May cause skin irritation.

**Serious eye damage/eye irritation Product:** May irritate eyes.

**Respiratory or skin sensitization Product:** Not a skin sensitizer.

**Carcinogenicity Product:** This substance has no evidence of carcinogenic properties.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

No carcinogenic components identified

Germ cell mutagenicity
In vitro
Product: No mutagenic components identified
In vivo
Product: No mutagenic components identified

Reproductive toxicity
Product: No components toxic to reproduction

Specific target organ toxicity - single exposure
Product: No data available.

Specific target organ toxicity - repeated exposure
Product: No data available.

Aspiration hazard
Product: Not classified

Other effects: None known.

SECTION 12: Ecological information

Ecotoxicity:

Fish Product: No data available.

Aquatic invertebrates
Product: No data available.

Specified substance(s):
POTASSIUM LC 50 (Water flea (Daphnia magna), 24 h): 670 mg/l Mortality
PERCHLORATE

Chronic hazards to the aquatic environment:
Fish Product: No data available.

Aquatic invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available

Persistence and degradability
Biodegradation
Product: There are no data on the degradability of this product.

BOD/COD ratio
Product: No data available.
Bioaccumulative potential

| Bioconcentration factor (BCF) | No data available on bioaccumulation. |

Partition coefficient n-octanol / water (log Kow)

| Product: | No data available. |

Mobility in soil:
The product is water soluble and may spread in water systems.

Other adverse effects:
No negative effects on the aquatic environment are known.

### SECTION 13: Disposal considerations

**Disposal instructions:**
Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Contaminated packaging:**
Since emptied containers retain product residue, follow label warnings even after container is emptied.

### SECTION 14: Transport information

#### DOT

| UN number: | UN 1489 |
| UN proper shipping name: | Potassium Perchlorate |
| Transport hazard class(es) |
| Class(es): | 5.1 |
| Label(s): | 5.1 |
| Packing group: | II |
| Marine Pollutant: | No |

#### IMDG

| UN number: | UN 1489 |
| UN proper shipping name: | POTASSIUM PERCHLORATE |
| Transport hazard class(es) |
| Class(es): | 5.1 |
| Label(s): | 5.1 |
| EmS No.: | F-H, S-Q |
| Packing group: | II |
| Marine Pollutant: | No |

#### IATA

| UN number: | UN 1489 |
| Proper Shipping Name: | Potassium Perchlorate |
| Transport hazard class(es): |
| Class(es): | 5.1 |
| Label(s): | 5.1 |
| Marine Pollutant: | No |
| Packing group: | II |
SECTION 15: Regulatory information

U.S. Federal Regulations
- TSCA 12(b): Not applicable
- SARA 313: Not applicable

SARA 311/312 Hazardous Categorization
- Acute Health Hazard: Yes
- Chronic Health Hazard: No
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: Yes;
- Clean Water Act: Not applicable
- Clean Air Act: Not applicable
- OSHA Occupational Safety and Health Administration: Not applicable
- CERCLA: Not applicable

California Proposition 65: This product does not contain any Proposition 65 chemicals

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 Perchlorate</td>
<td>(yes)</td>
<td>(yes)</td>
<td></td>
<td>(yes)</td>
<td></td>
</tr>
</tbody>
</table>

U.S. Department of Transportation
- Reportable Quantity (RQ): N
- DOT Marine Pollutant: N
- DOT Severe Marine Pollutant: N

U.S. Department of Homeland Security
- This product contains the following DHS chemicals:
  - Component DHS Chemical Facility Anti-Terrorism Standard: Potassium Perchlorate 2000 lb STQ

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 SDS contains all the information required by the CPR

WHMIS Hazard Class
- C Oxidizing materials
- D1B Toxic materials

Inventory Status:
- US TSCA Inventory: On or in compliance with the inventory
SECTION 16: Other information

Prepared By
Info Services
Fireworks Cookbook, LLC
Email: info@fireworkscookbook.com

Creation Date 1-May-2017
Revision Date 1-May-2017
Print Date 5-May-2017

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

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.