

# Fireworks Cookbook, LLC

Creation Date: 1- May-2017

Revision date: 1-May-2017

Revision No: 1.0

## 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

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## 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 CO<sub>2</sub>, dry chemical, or foam for extinction

### Disposal

Dispose of contents/container to an approved waste disposal plant

### Hazards not otherwise classified (HNOC)

None identified

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## SECTION 3. Composition/information on ingredients

Component	CAS-No	Weight %
Potassium Perchlorate	7778-74-7	>95

## SECTION 4: First aid measures

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

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## 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.

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## 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.

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## SECTION 9. Physical and chemical properties

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

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**Solubility in water:** 15 g/l (25 °C)  
**Solubility (other):** No data available.  
**Partition coefficient (n-octanol/water):** No data available.  
**Auto-ignition temperature:** No data available.  
**Decomposition temperature:** No data available.  
**Viscosity:** No data available.  
**Other information Molecular weight:** 138.55 g/mol (ClHO4.K)

## 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:

Reducing agents. Flammable/combustible material. Organic compounds. Aluminum. Magnesium. Fluorine. Sulfur oxides.

### 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.

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## **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

## **US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**

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  
PERCHLORATE** LC 50 (Water flea (Daphnia magna), 24 h): 670 mg/l Mortality

### **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.

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## Bioaccumulative potential

### Bioconcentration factor (BCF)

**Product:** 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



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## 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

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Potassium Perchlorate	(yes)	(yes)	(yes) -	(No)	(yes)

### 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

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## 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.