

# Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 03.04.2015

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## Potassium Persulfate,

### SECTION 1: Identification of the substance/mixture and of the supplier

**Product name:** Potassium Persulfate,

**Manufacturer/Supplier Trade name:**

**Manufacturer/Supplier Article number:** S25498

**Recommended uses of the product and restrictions on use:**

**Manufacturer Details:**

AquaPhoenix Scientific, Inc  
9 Barnhart Drive, Hanover, PA 17331  
(717) 632-1291

**Supplier Details:**

Fisher Science Education  
6771 Silver Crest Road, Nazareth, PA 18064  
(724)517-1954

**Emergency telephone number:**

**Fisher Science Education**  
Emergency Telephone No.: 800-535-5053

### SECTION 2: Hazards identification

**Classification of the substance or mixture:**



**Oxidizing**

Oxidizing solids, category 3



**Irritant**

Acute toxicity (oral, dermal, inhalation), category 4

Skin irritation, category 2

Eye irritation, category 2A

Skin sensitization, category 1

Specific target organ toxicity following single exposure, category 3



**Health hazard**

Respiratory sensitization, category 1

Oxidizing Solids 3.

Ac. Oral Tox. 4.

Skin Irrit. 2.

Eye Irrit. 2A.

Resp. Sens. 1.

Skin Sens. 1.

STOT SE 3.

Aq. AcTox. 3.

**Signal word:** Danger

**Hazard statements:**

May intensify fire; oxidizer.

Harmful if swallowed.

Causes skin irritation.

May cause an allergic skin reaction.

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Causes serious eye irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause respiratory irritation.  
Harmful to aquatic life.

### Precautionary statements:

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.  
Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Wear protective gloves/protective clothing/eye protection/face protection.  
In case of inadequate ventilation wear respiratory protection.  
Keep/Store away from clothing/combustible materials.  
Take any precaution to avoid mixing with combustibles.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wash skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing should not be allowed out of the workplace.  
Avoid release to the environment.  
Take off contaminated clothing and wash before reuse.  
In case of fire: Use agents recommended in section 5 for extinction.  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
Rinse mouth.  
IF ON SKIN: Wash with soap and water.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.  
Continue rinsing.  
If skin irritation or a rash occurs: Get medical advice/attention.  
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
Store in a well ventilated place. Keep container tightly closed.  
Store locked up.  
Dispose of contents and container as instructed in Section 13.

### Other Non-GHS Classification:

#### WHMIS



#### NFPA/HMIS

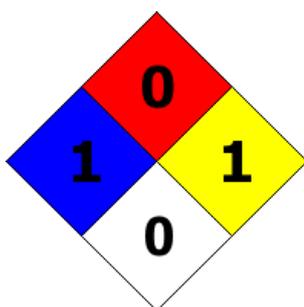
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NFPA SCALE (0-4)

Health	1
Flammability	0
Physical Hazard	1
Personal Protection	X

HMIS RATINGS (0-4)

### SECTION 3: Composition/information on ingredients

#### Ingredients:

CAS 7727-21-1

Potassium Persulfate

<100 %

Percentages are by weight

### SECTION 4: First aid measures

#### Description of first aid measures

##### After inhalation:

Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Loosen clothing and place exposed in a comfortable position. Seek medical assistance if cough or other symptoms appear.

##### After skin contact:

Wash hands and exposed skin with soap and plenty of water. Seek medical attention if irritation persists or if concerned.

##### After eye contact:

Protect unexposed eye. Flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Seek medical attention if irritation persists or concerned.

##### After swallowing:

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately seek medical attention.

#### Most important symptoms and effects, both acute and delayed:

Irritation. Shortness of breath. Headache. Nausea. Dizziness.

#### Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

### SECTION 5: Firefighting measures

#### Extinguishing media

##### Suitable extinguishing agents:

Use water spray to cool unopened containers. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

##### Unsuitable extinguishing agents: None

#### Special hazards arising from the substance or mixture:

Container explosion may occur under fire conditions. Combustible dust formation is a risk. Thermal

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decomposition can lead to release of irritating gases and vapors.

### Advice for firefighters:

#### Protective equipment:

Wear protective eyewear, gloves, and clothing. Refer to Section 8.

#### Additional information (precautions):

Avoid dust formation. Keep away from open flames, hot surfaces and sources of ignition. Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures:

Use spark proof tools. Ensure adequate ventilation. Ensure that air-handling systems are operational.

### Environmental precautions:

Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

### Methods and material for containment and cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet - brushing and place in container for disposal according to local regulations (see section 13). Wear protective eyewear, gloves, and clothing. Refer to Section 8. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal.

Reference to other sections: None

## SECTION 7: Handling and storage

### Precautions for safe handling:

Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances.

### Conditions for safe storage, including any incompatibilities:

Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials.

## SECTION 8: Exposure controls/personal protection



### Control Parameters:

7727-21-1, Potassium Persulfate, TWA 0.100000 mg/m<sup>3</sup> USA. ACGIH.

### Appropriate Engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

### Respiratory protection:

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

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- Protection of skin:** Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.
- Eye protection:** Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.
- General hygienic measures:** Perform routine housekeeping. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Before rewearing wash contaminated clothing.

### SECTION 9: Physical and chemical properties

<b>Appearance (physical state, color):</b>	White solid	<b>Explosion limit lower:</b> <b>Explosion limit upper:</b>	Not Determined Not Determined
<b>Odor:</b>	Odorless	<b>Vapor pressure at 20°C:</b>	Not Determined
<b>Odor threshold:</b>	Not Determined	<b>Vapor density:</b>	9.33 - (Air = 1.0)
<b>pH-value:</b>	2.5 - 4.5 at 27 g/l at 25 °C	<b>Relative density:</b>	2.477 g/cm <sup>3</sup>
<b>Melting/Freezing point:</b>	100 °C	<b>Solubilities:</b>	Soluble in water: 5g/100mL 20 °C.
<b>Boiling point/Boiling range:</b>	Not Determined	<b>Partition coefficient (n-octanol/water):</b>	Not Determined
<b>Flash point (closed cup):</b>	Not Determined	<b>Auto/Self-ignition temperature:</b>	Not Determined
<b>Evaporation rate:</b>	Not Determined	<b>Decomposition temperature:</b>	170 °C
<b>Flammability (solid, gaseous):</b>	Not Determined	<b>Viscosity:</b>	a. Kinematic: Not Determined b. Dynamic: Not Determined
<b>Density at 20°C:</b>	Not Determined		

### SECTION 10: Stability and reactivity

**Reactivity:**

Nonreactive under normal conditions.

**Chemical stability:**

Stable under normal conditions.

**Possible hazardous reactions:**

None under normal processing.

**Conditions to avoid:**

Moisture sensitive. Excessive heat. Incompatible materials.

**Incompatible materials:**

Organic materials, Strong reducing agents, Powdered metals, Strong bases, Alcohols, phosphorous, Anhydrides, Halogens, Acids.

**Hazardous decomposition products:**

Sulphur oxides, Potassium oxides.

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## Potassium Persulfate,

### SECTION 11: Toxicological information

#### Acute Toxicity:

##### Oral:

7727-21-1 LD50 Oral - Rat - 825 mg/kg

7727-21-1 LD50 Dermal - rabbit - > 10,000 mg/kg

**Chronic Toxicity:** No additional information.

**Corrosion Irritation:** No additional information.

**Sensitization:** No additional information.

**Numerical Measures:** No additional information.

**Carcinogenicity:** No additional information.

**Mutagenicity:** No additional information.

**Reproductive Toxicity:** No additional information.

### SECTION 12: Ecological information

#### Ecotoxicity:

7727-21-1: LC50 - Fish - 76.3 mg/l - 96 h

7727-21-1 : EC50 - Daphnia (water flea) - 120 mg/l - 48 h

7727-21-1: EC50 - Bacteria - 83.7 mg/l - 72 h

**Persistence and degradability:** No additional information.

**Bioaccumulative potential:** No additional information.

**Mobility in soil:** No additional information.

**Other adverse effects:** No additional information.

### SECTION 13: Disposal considerations

#### Waste disposal recommendations:

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed together with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). 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. Ensure complete and accurate classification.

### SECTION 14: Transport information

#### US DOT

##### UN Number:

ADR, ADN, DOT, IMDG, IATA

1492

##### Limited Quantity Exception:

None

##### Bulk:

**RQ (if applicable):** None

**Proper shipping Name:** Potassium Persulfate.

##### Non Bulk:

**RQ (if applicable):** None

**Proper shipping Name:** Potassium Persulfate.

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**Hazard Class:** 5  
**Packing Group:** III.  
**Marine Pollutant (if applicable):** No additional information.  
**Comments:** None

**Hazard Class:** 5  
**Packing Group:** III.  
**Marine Pollutant (if applicable):** No additional information.  
**Comments:** None



### SECTION 15: Regulatory information

#### United States (USA)

**SARA Section 311/312 (Specific toxic chemical listings):**

Reactive, Acute

**SARA Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

**RCRA (hazardous waste code):**

None of the ingredients are listed.

**TSCA (Toxic Substances Control Act):**

All ingredients are listed.

**CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

None of the ingredients are listed.

#### Proposition 65 (California):

**Chemicals known to cause cancer:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

**Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

#### Canada

**Canadian Domestic Substances List (DSL):**

All ingredients are listed.

**Canadian NPRI Ingredient Disclosure list (limit 0.1%):**

None of the ingredients are listed.

**Canadian NPRI Ingredient Disclosure list (limit 1%):**

None of the ingredients are listed.

### SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to

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provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

**GHS Full Text Phrases:** None

**Abbreviations and Acronyms:** None

**Effective date:** 03.04.2015

**Last updated:** 06.17.2015