

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 02, 2019

## 1 Identification

- **Product identifier**
- **Trade name: Potassium Nitrate, ACS Grade**
- **Product code:** PN2000
- **CAS Number:**  
7757-79-1
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
AquaPhoenix Scientific, Inc.  
860 Gitts Run Road  
Hanover, PA 17331  
Phone: (717)632-1291  
Toll-Free: (866)632-1291  
info@aquaphoenixsci.com
- **Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924 (North America)  
+1 (813)248-0585 (International)

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Ox. Sol. 2                      H272 May intensify fire; oxidizer.  
Combustible Dust                      May form combustible dust concentrations in air.
- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS03

- **Signal word:** Danger
- **Hazard statements:**  
H272 May intensify fire; oxidizer.  
May form combustible dust concentrations in air.
- **Precautionary statements:**  
P210                      Keep away from heat.  
P220                      Keep/Store away from clothing/combustible materials.  
P221                      Take any precaution to avoid mixing with combustibles.  
P280                      Wear protective gloves/protective clothing/eye protection/face protection.  
P370+P378              In case of fire: Use for extinction: CO2, powder or water spray.  
P501                      Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:**

(Cont'd. on page 2)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 02, 2019

**Trade name: Potassium Nitrate, ACS Grade**

(Cont'd. of page 1)

Read the label and safety data sheet before use. Prevent dust accumulations to minimize explosion hazard. Keep away from all ignition sources including heat, sparks and flame.

- **Other hazards** There are no other hazards not otherwise classified that have been identified.

## 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
7757-79-1 Potassium nitrate

## 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Brush off loose particles from skin.  
Immediately remove any clothing soiled by the product.  
Immediately rinse with water.  
If skin irritation is experienced, consult a doctor.
- **After eye contact:**  
Remove contact lenses if worn.  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**  
Gastric or intestinal disorders when ingested.  
Methaemoglobinaemia
- **Danger:** May be harmful if swallowed.
- **Indication of any immediate medical attention and special treatment needed:**  
If medical advice is needed, have product container or label at hand.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Carbon dioxide  
Fire-extinguishing powder  
Foam  
Sand  
Water
- **For safety reasons unsuitable extinguishing agents:** No relevant information available.
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.  
May intensify fire; oxidizer.
- **Advice for firefighters**
- **Protective equipment:**

(Cont'd. on page 3)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 02, 2019

**Trade name: Potassium Nitrate, ACS Grade**

(Cont'd. of page 2)

Wear self-contained respiratory protective device.  
Wear fully protective suit.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Avoid formation of dust.  
Take any precaution to avoid mixing with combustibles.  
For large spills, wear protective clothing.

- **Environmental precautions**

Damp down dust with water spray.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Methods and material for containment and cleaning up**

Pick up mechanically.  
Place in properly marked container for disposal.

- **Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling**

- **Precautions for safe handling:**

Use only in well ventilated areas.  
Keep from heat and sources of ignition.  
Take any precaution to avoid mixing with combustibles.

- **Information about protection against explosions and fires:** May intensify fire; oxidizer.

- **Conditions for safe storage, including any incompatibilities**

- **Requirements to be met by storerooms and receptacles:** Avoid storage near extreme heat.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.  
Store away from flammable substances.  
Do not store together with textiles.  
Store away from reducing agents.  
Do not store together with acids.  
Do not store together with alkalis (caustic solutions).

- **Further information about storage conditions:** Keep containers tightly sealed.

- **Specific end use(s)** No relevant information available.

## 8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

(Cont'd. on page 4)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 02, 2019

Trade name: Potassium Nitrate, ACS Grade

(Cont'd. of page 3)

- **Exposure controls**
- **Engineering measures** Provide adequate ventilation.
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.
- **Engineering controls:** Provide adequate ventilation.
- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:**



Protective gloves

- **Material of gloves**  
Nitrile rubber, NBR  
Butyl rubber, BR  
Neoprene gloves  
Natural rubber, NR  
Sensibilization by the components in the glove materials is possible.
- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment**  
No relevant information available.
- **Risk management measures** No relevant information available.

## 9 Physical and chemical properties

### • Information on basic physical and chemical properties

- **Appearance:**
  - Form:** Crystalline
  - Color:** White
- **Odor:** Odorless
- **Odor threshold:** Not determined.

- **pH-value:** Not applicable.
- **Melting point/Melting range:** 334 °C (633.2 °F)
- **Boiling point/Boiling range:** 400 °C (752 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Contact with combustible material may cause fire.

- **Auto-ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

(Cont'd. on page 5)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 02, 2019

**Trade name: Potassium Nitrate, ACS Grade**

(Cont'd. of page 4)

· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Oxidizing properties:</b>	Oxidizer
· <b>Vapor pressure:</b>	Not determined.
· <b>Density:</b>	
<b>Relative density:</b>	2.11
<b>Vapor density:</b>	Not applicable.
<b>Evaporation rate:</b>	Not applicable.
· <b>Solubility in / Miscibility with</b>	
<b>Water at 20 °C (68 °F):</b>	320 g/l
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>Other information</b>	No relevant information available.

## 10 Stability and reactivity

- **Reactivity:** Reacts with reducing agents.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.  
Toxic fumes may be released if heated above the decomposition point.
- **Possibility of hazardous reactions**  
Reacts with powdered metals.  
Acts as an oxidizing agent on organic materials such as wood, paper and fats.  
Substance/product can reduce the ignition temperature of flammable substances.  
May form combustible dust concentrations in air.
- **Conditions to avoid**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Keep away from heat and direct sunlight.  
Keep/Store away from clothing/combustible materials.  
Reacts with reducing agents.
- **Incompatible materials** Reducing agents, combustible materials, moisture, contact with metals.
- **Hazardous decomposition products**  
Under fire conditions only:  
Nitrogen oxides (NO<sub>x</sub>)

## 11 Toxicological information

- **Information on toxicological effects**

(Cont'd. on page 6)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 02, 2019

**Trade name: Potassium Nitrate, ACS Grade**

(Cont'd. of page 5)

- **Acute toxicity:** May be harmful if swallowed.

• **LD/LC50 values that are relevant for classification:**

**7757-79-1 Potassium nitrate**

Oral | LD50 | 3,750 mg/kg (rat)

• **Primary irritant effect:**

- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

• **IARC (International Agency for Research on Cancer):**

Substance is not listed.

• **NTP (National Toxicology Program):**

Substance is not listed.

• **OSHA-Ca (Occupational Safety & Health Administration):**

Substance is not listed.

• **Probable route(s) of exposure:**

Ingestion.  
Inhalation.  
Eye contact.  
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** No relevant information available.
- **Repeated dose toxicity:** No relevant information available.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

## 12 Ecological information

• **Toxicity**

- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.

• **Additional ecological information**

• **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **Other adverse effects** No relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**

(Cont'd. on page 7)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 02, 2019




**Trade name: Potassium Nitrate, ACS Grade**

(Cont'd. of page 6)

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- |   |                               |
|---|-------------------------------|
| · <b>UN-Number</b>  | UN1486                        |
| · <b>DOT, ADR/RID/ADN, IMDG, IATA</b>   |                               |
| · <b>UN proper shipping name</b>  | Potassium nitrate             |
| · <b>DOT, IATA</b>  | POTASSIUM NITRATE             |
| · <b>ADR/RID/ADN, IMDG</b>  |                               |
| · <b>Transport hazard class(es)</b>   |                               |
| · <b>DOT</b>  |                               |
|   |                               |
| · <b>Class</b>  | 5.1                           |
| · <b>Label</b>  | 5.1                           |
| · <b>ADR/RID/ADN</b>  |                               |
|  |                               |
| · <b>Class</b>  | 5.1 (O2)                      |
| · <b>Label</b>  | 5.1                           |
| · <b>IMDG, IATA</b>   |                               |
|  |                               |
| · <b>Class</b>  | 5.1                           |
| · <b>Label</b>  | 5.1                           |
| · <b>Packing group</b>  | III                           |
| · <b>DOT, ADR/RID/ADN, IMDG, IATA</b>   |                               |
| · <b>Environmental hazards</b>  |                               |
| · <b>Marine pollutant:</b>  | No                            |
| · <b>Special precautions for user</b>   | Warning: Oxidizing substances |
| · <b>Danger code (Kemler):</b>  | 50                            |
| · <b>EMS Number:</b>  | 5.1-06                        |

(Cont'd. on page 8)

# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 02, 2019

**Trade name:** Potassium Nitrate, ACS Grade

(Cont'd. of page 7)

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:**
  - DOT
  - **Quantity limitations** On passenger aircraft/rail: 5 L  
On cargo aircraft only: 60 L

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

- **Section 302 (extremely hazardous substances):**

Substance is not listed.

- **Section 355 (extremely hazardous substances):**

Substance is not listed.

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

Substance is listed.

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

All ingredients are listed or exempt.

- **Proposition 65 (California)**

- **Chemicals known to cause cancer:**

Substance is not listed.

- **Chemicals known to cause developmental toxicity for females:**

Substance is not listed.

- **Chemicals known to cause developmental toxicity for males:**

Substance is not listed.

- **Chemicals known to cause developmental toxicity:**

Substance is not listed.

- **EPA (Environmental Protection Agency):**

Substance is not listed.

- **IARC (International Agency for Research on Cancer):**

Substance is not listed.

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

All ingredients listed on DSL or NDSL.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any  
(Cont'd. on page 9)



# Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 02, 2019

**Trade name: Potassium Nitrate, ACS Grade**

(Cont'd. of page 8)

specific product features and shall not establish a legally valid contractual relationship.

• **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Ox. Sol. 2: Oxidizing solids – Category 2

• **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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