

# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/22/2015

Reviewed on 02/06/2014

## 1 Identification

- **Product identifier**
- **Trade name:** Potassium Nitrate, Reagent ACS Grade Crystal
- **Article number:** P5252
- **CAS Number:**  
7757-79-1
- **EC number:**  
231-818-8
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
Product safety department  
Technical Coordinator  
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**  
Chemtec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS03 Flame over circle

*Ox. Sol. 2 H272 May intensify fire; oxidizer.*

- **Label elements**
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS03

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

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 3  
Reactivity = 0

*The substance possesses oxidizing properties.*

- **HMIS-ratings (scale 0 - 4)**



Health = 1  
Fire = 3  
Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**  
7757-79-1 Potassium Nitrate
- **Identification number(s)**
- **EC number:** 231-818-8

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

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### 6 Accidental release measures

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

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:** Pick up mechanically.

- **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

- **Precautions for safe handling** Prevent formation of dust.

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Keep respiratory protective device available.

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

- **Storage:**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

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

### 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

· **Components with limit values that require monitoring at the workplace:** Not required.

· **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

- **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

|                         |                 |
|-------------------------|-----------------|
| <b>Form:</b>            | Crystalline     |
| <b>Color:</b>           | White           |
| <b>Odor:</b>            | Odorless        |
| <b>Odour threshold:</b> | Not determined. |

· **pH-value:** Not applicable.

#### · Change in condition

|                                     |                 |
|-------------------------------------|-----------------|
| <b>Melting point/Melting range:</b> | 334 °C (633 °F) |
| <b>Boiling point/Boiling range:</b> | 400 °C (752 °F) |

· **Flash point:** Not applicable.

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

#### · Ignition temperature:

**Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

· **Danger of explosion:** Not determined.

#### · Explosion limits:

|               |                 |
|---------------|-----------------|
| <b>Lower:</b> | Not determined. |
| <b>Upper:</b> | Not determined. |

· **Vapor pressure:** Not applicable.

· **Density at 20 °C (68 °F):** 2.109 g/cm<sup>3</sup> (17.6 lbs/gal)

· **Relative density** Not determined.

· **Vapour density** Not applicable.

· **Evaporation rate** Not applicable.

#### · Solubility in / Miscibility with

**Water at 20 °C (68 °F):** 320 g/l

· **Partition coefficient (n-octanol/water):** Not determined.

#### · Viscosity:

**Dynamic:** Not applicable.

**Kinematic:** Not applicable.

· **Other information** No further relevant information available.

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## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

|      |      |                  |
|------|------|------------------|
| Oral | LD50 | 3750 mg/kg (rat) |
|------|------|------------------|

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **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.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
- Water hazard class 1 (Assessment by list): slightly hazardous for water
- Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
- Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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

## 14 Transport information

· **UN-Number**  
 · **DOT, IMDG, IATA** UN1486

· **UN proper shipping name**  
 · **DOT** Potassium nitrate  
 · **IMDG, IATA** POTASSIUM NITRATE

· **Transport hazard class(es)**  
 · **DOT**



· **Class** 5.1 Oxidizing substances  
 · **Label** 5.1

· **IMDG, IATA**



· **Class** 5.1 Oxidizing substances  
 · **Label** 5.1

· **Packing group**  
 · **DOT, IMDG, IATA** III

· **Environmental hazards:**  
 · **Marine pollutant:** No

· **Special precautions for user** Warning: Oxidizing substances  
 · **Danger code (Kemler):** 50  
 · **EMS Number:** F-A,S-Q

· **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: 25 kg  
 On cargo aircraft only: 100 kg

· **IMDG**  
 · **Limited quantities (LQ)** 5 kg  
 · **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 g  
 Maximum net quantity per outer packaging: 1000 g

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· UN "Model Regulation": UN1486, Potassium nitrate, 5.1, III

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is listed.
- **TSCA (Toxic Substances Control Act):** Substance is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS03

- **Signal word** *Danger*
- **Hazard statements**  
*May intensify fire; oxidizer.*
- **Precautionary statements**  
*Take any precaution to avoid mixing with combustibles.  
Keep away from heat.  
Keep/Store away from clothing/combustible materials.  
Wear protective gloves / eye protection / face protection.  
In case of fire: Use for extinction: CO2, powder or water spray.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing SDS:** Environment protection department.
- **Contact:** Mr. Nelson
- **Date of preparation / last revision**  
*Creation date for SDS 05-27-14 LS  
01/22/2015 / -*
- **Abbreviations and acronyms:**  
*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods*

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*DOT: US Department of Transportation**IATA: International Air Transport Association**ACGIH: American Conference of Governmental Industrial Hygienists**EINECS: European Inventory of Existing Commercial Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**Ox. Sol. 2: Oxidising Solids, Hazard Category 2*

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