SECTION 1: Identification

Product identifier

<table>
<thead>
<tr>
<th>Trade name/designation:</th>
<th>Potassium nitrate, crystallized ACS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product No.:</td>
<td>BDH4598</td>
</tr>
<tr>
<td>Synonyms:</td>
<td>no data available</td>
</tr>
<tr>
<td>CAS No.:</td>
<td>7757-79-1</td>
</tr>
</tbody>
</table>

Other means of identification:

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use: For Further Manufacturing Use Only

Uses advised against: Not for Human or Animal Drug Use

Details of the supplier of the safety data sheet

Supplier

**VWR International LLC**

<table>
<thead>
<tr>
<th>Street</th>
<th>100 Matsonford Road Radnor Corporate Center, Building One, Suite 200 P. O. Box 6660</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postal code/city</td>
<td>Radnor, PA 19087</td>
</tr>
<tr>
<td>Telephone</td>
<td>+1-800-932-5000 toll-free within US/Canada</td>
</tr>
<tr>
<td></td>
<td>+1-610-386-1700</td>
</tr>
<tr>
<td>Telefax</td>
<td>+1-610-728-2103</td>
</tr>
</tbody>
</table>
SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

<table>
<thead>
<tr>
<th>Hazard classes and hazard categories</th>
<th>Hazard statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxidising solid, category 3</td>
<td>H272</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling in accordance with 29 CFR 1910.1200 (OSHA HCS)

Hazard pictograms

Signal word: Warning

<table>
<thead>
<tr>
<th>Hazard statements</th>
<th>Hazard description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H272</td>
<td>May intensify fire; oxidiser.</td>
</tr>
</tbody>
</table>

Precautionary statements

<table>
<thead>
<tr>
<th>Precautionary statements</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P210</td>
<td>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</td>
</tr>
<tr>
<td>P220</td>
<td>Keep/Store away from clothing/combustible materials.</td>
</tr>
<tr>
<td>P280</td>
<td>Wear protective gloves/protective clothing/eye protection/face protection.</td>
</tr>
</tbody>
</table>

Hazards not otherwise classified (HNOC)
none/none
SECTION 3: Composition / information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Potassium nitrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular formula</td>
<td>KNO3</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>101.1 g/mol</td>
</tr>
<tr>
<td>CAS No.</td>
<td>7757-79-1</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 General information

When in doubt or if symptoms are observed, get medical advice. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person or a person with cramps. Change contaminated, saturated clothing. Do not leave affected person unattended.

After inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Give nothing to eat or drink.

4.2 Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

4.4 Self-protection of the first aider

First aider: Pay attention to self-protection!

4.5 Information to physician

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
The product itself does not burn.
May intensify fire; oxidiser.
Co-ordinate fire-fighting measures to the fire surroundings.
Extinguishing media which must not be used for safety reasons
no restriction

5.2 Specific hazards arising from the chemical
In case of fire may be liberated:
Nitrogen oxides (NOx)

5.3 Advice for firefighters
DO NOT fight fire when fire reaches explosives.
Protective equipment and precautions for firefighters:
Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information
Do not allow run-off from fire-fighting to enter drains or water courses.
Do not inhale explosion and combustion gases.
Use water spray/stream to protect personnel and to cool endangered containers.
In case of fire: Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid generation of dust.

6.2 Environmental precautions
Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up
Spilled product must never be returned to the original container for recycling. Clean contaminated objects and areas thoroughly observing environmental regulations. Collect in closed and suitable containers for disposal.

6.4 Additional information
Clear spills immediately.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
All work processes must always be designed so that the following is as low as possible: Inhalation skin contact Eye contact If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Keep away from sources of ignition. - No smoking. Normal measures for fire prevention. May cause decomposition by long-term light influence.

7.2 Conditions for safe storage, including any incompatibilities
storage temperature: Ambient temperature
Keep container tightly closed and in a well-ventilated place. Store product under (gas): Protective gas, dry Do not allow contact with air.

7.3 Specific end use(s)
no data available
SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 Engineering controls

Appropriate engineering controls
Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Personal protection equipment (PPE)
Wear suitable protective clothing. When handling with chemical substances, protective clothing must be worn.

Eye/face protection
Eye glasses with side protection

Skin protection
Wear suitable gloves. When handling with chemical substances, protective gloves must be worn. In the case of wanting to use the gloves again, clean them before taking off and air them well. Check leak tightness/impermeability prior to use.

By short-term hand contact
Suitable material: NBR (Nitrile rubber)
Thickness of the glove material: 0,12 mm
Breakthrough time (maximum wearing time): > 480 min

By long-term hand contact
Suitable material: NBR (Nitrile rubber)
Thickness of the glove material: 0,38 mm
Breakthrough time (maximum wearing time): > 480 min

Respiratory protection
Respiratory protection necessary at: aerosol or mist formation If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

Additional information
Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

Environmental exposure controls
no data available
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a) Appearance
   Physical state: solid
   Color: white

(b) Odour: no data available

(c) Odour threshold: no data available

Safety relevant basic data

(d) pH: 5-8 (50 g/l; H₂O; 20 °C)
(e) Melting point/freezing point: 334 °C
(f) Initial boiling point and boiling range: no data available
(g) Flash point: no data available
(h) Evaporation rate: no data available
(i) Flammability (solid, gas): not applicable
(j) Flammability or explosive limits
   Lower explosion limit: no data available
   Upper explosion limit: no data available
(k) Vapour pressure: no data available
(l) Vapour density: no data available
(m) Relative density: 2.109 g/cm³ (20 °C)
(n) Solubility(ies)
   Water solubility (g/L): 320 g/l (20 °C)
   Soluble (g/L) in Ethanol: no data available
(o) Partition coefficient: n-octanol/water: no data available
(p) Auto-ignition temperature: no data available
(q) Decomposition temperature: 400 °C (1013 hPa)
(r) Viscosity
   Kinematic viscosity: no data available
   Dynamic viscosity: no data available
(s) Explosive properties: not applicable
(t) Oxidising properties: May intensify fire; oxidiser.

9.2 Other information

Bulk density: 2.109 g/cm³ (20 °C)
Refraction index: no data available
Dissociation constant: no data available
Surface tension: no data available
Henry constant: no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available
10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
No data available

10.6 Hazardous decomposition products
No data available

10.7 Additional information
No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects
Acute oral toxicity:
LD50: > 3015 mg/kg - Rat - (IUCLID)

Acute dermal toxicity:
No data available

Acute inhalation toxicity:
No data available

Irritant and corrosive effects
Primary irritation to the skin:
Not applicable

Irritation to eyes:
Not applicable

Irritation to respiratory tract:
Not applicable

Respiratory or skin sensitization
In case of skin contact: not sensitising
After inhalation: not sensitising

STOT-single exposure
Not applicable

STOT-repeated exposure
Not applicable
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th></th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>no data available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Germ cell mutagenicity
No indications of human germ cell mutagenicity exist.

Reproductive toxicity
No indications of human reproductive toxicity exist.

Aspiration hazard
not applicable

Other adverse effects
no data available

Additional information
no data available

SECTION 12: Ecological information

12.1 Ecotoxicity

Fish toxicity:

Daphnia toxicity:
LC50: 490 mg/l (48 h) - Dowden, B.F., and H.J. Bennett 1965. Toxicity of Selected Chemicals to Certain Animals. J.Water Pollut.Control Fed. 37(9):1308-1316

Algae toxicity:
no data available

Bacteria toxicity:
no data available

12.2 Persistence and degradability
no data available

12.3 Bioaccumulative potential
Partition coefficient: n-octanol/water: no data available

12.4 Mobility in soil:
no data available
12.5 Results of PBT/vPvB assessment
no data available

12.6 Other adverse effects
no data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product
Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal. Send to a hazardous waste incinerator facility under observation of official regulations.

Waste code product: 060499

Appropriate disposal / Package
Dispose according to legislation. Handle contaminated packages in the same way as the substance itself.

Additional information
no data available

SECTION 14: Transport information

Land transport (DOT)

UN-No.: 1486
Proper Shipping Name: POTASSIUM NITRATE
Class(es): 5.1
Classification code: O2
Hazard label(s): 5.1
Packing group: III
Environmental hazards: No
Marine pollutant: No
Special precautions for user:

Sea transport (IMDG)

UN-No.: 1486
Proper Shipping Name: POTASSIUM NITRATE
Class(es): 5.1
Classification code: Hazard label(s): 5.1
Packing group: III
Environmental hazards: No
MARINE POLLUTANT: no data available
Special precautions for user:
Segregation group: -
EmS-No. F-A S-Q
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code not relevant
Air transport (ICAO-TI / IATA-DGR)

UN-No.: 1486
Proper Shipping Name: POTASSIUM NITRATE
Class(es): 5.1
Classification code:
Hazard label(s): 5.1
Packing group: III
Special precautions for user:

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA 313 Components
Not listed.

Massachusetts Right To Know Components
Listed

Pennsylvania Right To Know Components
Listed

New Jersey Right To Know Components
Listed

California Prop. 65 Components
Not listed.
SECTION 16: Other information

Abbreviations and acronyms

ACGIH - American Conference of Governmental Industrial Hygiensts
DOT - Department of Transportation
IARC - International Agency for Research on Cancer
IATA-DGR - International Air Transport Association-Dangerous Goods Regulations
ICAO-TI - International Civil Aviation Organization-Technical Instructions
IMDG - International Maritime Code for Dangerous Goods
LTV - Long Term Value
NIOSH - National Institute for Occupational Safety and Health
NTP - National Toxicology Program
OSHA - Occupational Safety & Health Administration
PBT - Persistent, Bioaccumulative and Toxic
PEL - Permissible Exposure Limit
STV - Short Term Value
SVHC - Substances of Very High Concern
TDG - Transport of Dangerous Goods
TLV - Threshold Limit Value
vPvB - very Persistent, very Bioaccumulative

Additional information

Indication of changes: Section 5

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guidance. The information in this document is based on the present state knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and his Affiliates shall not be held liable for any damage resulting from handling.