

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.11.2011

Version number 1

Revision: 22.06.2009

1 Identification of the substance/mixture and of the company/undertaking

- **1.1. Product identifier**
- **Trade name:** Potassium nitrate
- **Article number:** 26883
- **CAS Number:**
7757-79-1
- **EC number:**
231-818-8
- **1.2. Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Laboratory chemicals
- **1.3. Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SERVA Electrophoresis GmbH
Carl-Benz-Str. 7
D-69115 Heidelberg
Tel.: +49 6221 13840-0
FAX: +49 6221 13840-10
msds.info@serva.de
- **Information department:** Product Safety department Tel.: +49 6221 13840-35
- **1.4. Emergency telephone number:** +49 6131 19240 (university hospital Mainz)

SERVA
Electrophoresis

2 Hazards identification

- **2.1. Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS03

Ox. Sol. 3 H272 May intensify fire; oxidiser.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



O; Oxidising

R8: Contact with combustible material may cause fire.

- **Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

- **2.2. Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms** GHS03

- **Signal word** Warning

- **Hazard statements**

H272 May intensify fire; oxidiser.

- **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P220 Keep/Store away from clothing/combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

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.

- **2.3. Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

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· **vPvB:** Not applicable.**3 Composition/information on ingredients**· **3.1. Chemical characterization: Substances**· **CAS No. Description:**

7757-79-1 potassium nitrate

· **Identification number(s):**· **EC number:** 231-818-8· **Description:**· **Empirical formula:** KNO_3 · **MW:** 101,11**4 First aid measures**· **4.1. Description of first aid measures**· **After inhalation** Supply fresh air; consult doctor in case of complaints.· **After skin contact** Immediately rinse with water.· **After eye contact** Rinse opened eye for several minutes under running water.· **After swallowing**

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

· **Information for doctor**· **4.2. Most important symptoms and effects, both acute and delayed**

Gastric or intestinal disorders.

Nausea

Methaemoglobinaemia

Headache

Breathing difficulty

Cramp

· **4.3. Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting measures· **5.1. Extinguishing media**· **Suitable extinguishing agents** Water spray· **5.2. Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Nitrogen oxides (NOx)

· **5.3. Advice for firefighters**· **Protective equipment:** Wear self-contained respiratory protective device.**6 Accidental release measures**· **6.1. Personal precautions, protective equipment and emergency procedures** Wear protective clothing.· **6.2. Environmental precautions:** Do not allow to enter sewers/ surface or ground water.· **6.3. Methods and material for containment and cleaning up:** Pick up mechanically.· **6.4. Reference to other sections**

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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7 Handling and storage

- **Handling**
- **7.1. Precautions for safe handling** Prevent formation of dust.
- **Information about protection against explosions and fires:**
The product is not flammable
Substance/product can reduce the ignition temperature of flammable substances.
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in unopened original receptacles.
- **Information about storage in one common storage facility:** Store away from flammable substances.
- **Further information about storage conditions:**
Store in dry conditions.
Protect from heat and direct sunlight.
- **7.3. 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.
- **8.1. 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.
- **8.2. Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures** Wash hands before breaks and at the end of work.
- **Breathing equipment:**
Short term filter device:
Filter P2.
- **Protection of hands:**
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.
- **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.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Nitrile rubber, NBR
Natural rubber, NR
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

9 Physical and chemical properties

- **9.1. Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
- **Form:** Crystalline
- **Colour:** White

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- | | |
|---|---|
| · Odour: | Odourless |
| · pH-value (50 g/l) at 20°C: | 4.5 - 8.5 |
| · Change in condition
Melting point/Melting range: 334°C
Boiling point/Boiling range: undetermined | |
| · Flash point: | Not applicable |
| · Flammability (solid, gaseous) | Contact with combustible material may cause fire. |
| · Ignition temperature: | |
| Decomposition temperature: | 400°C |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Density at 20°C: | 2.11 g/cm ³ |
| · Bulk density at 20°C: | ca. 800 kg/m ³ |
| · Solubility in / Miscibility with
Water at 20°C: | 320 g/l |
| · 9.2. Other information | There are no more data available. |

10 Stability and reactivity

- **10.1. Reactivity**
- **10.2. Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3. Possibility of hazardous reactions**
Reacts with powdered metals
Reacts with organic substances
- **10.4. Conditions to avoid** No further relevant information available.
- **10.5. Incompatible materials:** No further relevant information available.
- **10.6. Hazardous decomposition products:** Nitrogen oxides

11 Toxicological information

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

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

Oral	LD50	3540 mg/kg (rat)
	LC50/96h	1378 mg/l (Fish)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

12 Ecological information

- **12.1. Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **12.2. Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **12.3. Bioaccumulative potential** No further relevant information available.
- **12.4. Mobility in soil** No further relevant information available.

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- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (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.
- **12.5. Results of PBT and vPvB assessment**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **12.6. Other adverse effects** No further relevant information available.

13 Disposal considerations

- **13.1. Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **14.1. UN-Number**
· **ADR, IMDG, IATA** 1486
- **14.2. UN proper shipping name**
· **ADR** 1486 POTASSIUM NITRATE
· **IMDG** POTASSIUM NITRATE
· **IATA** Potassium nitrate
- **14.3. Transport hazard class(es)**
· **ADR**

· **Class** 5.1 Oxidising substances.
· **Label** 5.1

- **IMDG, IATA**

· **Class** 5.1 Oxidising substances.
· **Label** 5.1
- **14.4. Packing group**
· **ADR, IMDG, IATA** III
- **14.6. Special precautions for user** Warning: Oxidising substances.
· **Danger code (Kemler):** 50
· **EMS Number:** F-A,S-Q
- **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

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· Transport/Additional information:**· ADR****· Tunnel restriction code**

E

· UN "Model Regulation":

UN1486, POTASSIUM NITRATE, 5.1, III

15 Regulatory information

- **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Water hazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.
- **15.2. 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 MSDS:** Product safety department

- **Contact:** +49 6221 13840-35

· Abbreviations and acronyms:

PBT: persistent, bioaccumulative, toxic substance (REACH)

vPvB: very persistent, very bioaccumulative substance (REACH)

REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

CLP: Regulation on classification, labelling and packaging of substances and mixtures

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

- *** Data compared to the previous version altered.**