



SAFETY DATA SHEET

Date of issue: 20/04/05

1. Identification of the substance/preparation and of the company/undertaking

Identification of the product

Catalogue No: 30087

ID No.: 1023300

Product name: **Silver nitrate GPR**

Use of the substance/preparation: Chemical reagent

Manufacturer/supplier identification

Company: VWR International Ltd
Hunter Boulevard, Magna Park, Lutterworth, Leicestershire, England, LE17 4XN
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Emergency telephone No.: + 44 (0) 1202 669700

2. Composition/information on ingredients

Chemical characterization

Inorganic salt

Product name: Silver nitrate

CAS number: 7761-88-8

EC-No.: 231-853-9

EC Index No.: 047-001-00-2

Molecular formula: $\text{AgNO}_3 = 169.87 \text{ g/mol}$

3. Hazards identification

Causes burns. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First aid measures

- Eye contact: Irrigate thoroughly with water for at least 10 minutes. OBTAIN MEDICAL ATTENTION.
- Inhalation: Remove from exposure, rest and keep warm. In severe cases, or if exposure has been great, OBTAIN MEDICAL ATTENTION.
- Skin contact: Drench the skin thoroughly with water. Remove contaminated clothing and wash before re-use. Unless contact has been slight, OBTAIN MEDICAL ATTENTION.
- Ingestion: Wash out mouth thoroughly with water and give plenty of water to drink. OBTAIN MEDICAL ATTENTION.

5. Fire-fighting measures

Special risks:

Not combustible. May ignite combustible material. May evolve toxic fumes in fire.

Suitable extinguishing media:

Water spray

Do not stay in dangerous zone without respiratory protective equipment. Prevent fire fighting water entering watercourses or ground-water.

6. Accidental release measures

Wear appropriate protective clothing. Avoid generation of dusts. Do not allow to enter sewerage system.

Carefully take up dry. Forward for disposal. Clean up affected area.

7. Handling and storage

Handling:

Avoid generation of dusts. Change contaminated clothing. Application of skin- protective barrier cream recommended. Wash hands after working with substance. Do not empty into drains.

Unsuitable working materials: aluminium and steel (has a corrosive effect)

Storage:

Store at room temperature (15 to 25°C recommended). Keep well closed and protected from direct sunlight and moisture. Store away from combustible materials.

8. Exposure controls/personal protection

UK Exposure Limits:

WEL - Silver compounds (as Ag):

Long term: 0.01 mg/m³ (ILV)

Personal protective equipment:

As appropriate to the situation and the quantity handled. Engineering methods to control or prevent exposure are preferred. Methods could include process enclosure or mechanical ventilation.

- Respirator: Dust respirator required when dusts are generated.
- Ventilation: Extraction hood required when dusts are generated.
- Gloves: Rubber or plastic
- Eye Protection: Goggles or face-shield
- Other Precautions: Plastic apron, sleeves, boots - if handling large quantities

Environmental exposure controls:

Do not allow to enter drinking water supplies, waste water, or soil!

9. Physical and chemical properties

General information:

Form:	crystals
Colour:	colourless to white
Odour:	odourless

Health, safety and environmental information:

Melting temperature	212°C
Boiling temperature	444°C (decomposition)
Density(g/ml)	4.33
Bulk density:	~2.3 g/ml
Solubility in water	Very soluble (2,150 g/l, 20°C)
pH value	5.4 - 6.4 (Solution in water, 100g/l, 20°C)
Flash point	Not applicable
Log P(o/w):	0.19 (calculated)
Additional data:	Thermal decomposition: >444°C

10. Stability and reactivity

light-sensitive.

Conditions to be avoided: Strong heating.

Substances to be avoided

nonmetals, organic substances, alkali hydroxides, acetylidene, acetylene, aldehydes, nitriles, ammonia/alcohols, ammonium compounds, combustible substances, hydrazine and derivatives, carbides, organic nitro compounds, magnesium in powder form (with water), alcohols.

Hazardous decomposition products: nitrous gases.

11. Toxicological information

- After inhalation: Irritation of the mucous membranes, coughing, and dyspnoea.
- After skin contact: burns
- After eye contact: Burns., burns of mucous membranes. Risk of blindness!
- After swallowing: burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach.
- After ingestion of large amounts: vomiting, gastric spasms, diarrhoea, death.

Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

Further data

LD50 (oral, rat): 1173 mg/kg

Skin irritation test (rabbit): burns

Eye irritation test (rabbit): burns

Bacterial mutagenicity (Salmonella typhimurium): negative.

We have no evidence of carcinogenic effects. Evidence of reproductive effects.

The following applies to soluble silver compounds: only slightly absorbed via the gastrointestinal tract. Strong irritations after contact with eyes and skin.

12. Ecological information

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Further ecological data:

Revision.

Supersedes edition of: 16/07/99

Reason for alteration: Changes in Section : 11, 12. General update.

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