

Safety data sheet
according to UK REACH

Printing 29.11.2024

version number 31 (replaces version 30)

Revision: 29.11.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking***1.1 Product identifier*****Trade name:** SILVER AAS STANDARD SOLUTION
1000mg/L Ag in 0.5M HNO₃***Article number:** AAAGH***Registration number**

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance or mixture and uses advised against**Product category** For experiments, research, or testing purposes only. Prohibited of use for other purposes.***Application of the substance / the mixture** Laboratory Chemicals***1.3 Details of the supplier of the safety data sheet*****Manufacturer/Supplier:**

Reagecon Diagnostics Ltd.
Shannon Free Zone,
Shannon,
Co. Clare,
Ireland.
Tel +353 61 472622
Fax +353 61 472642

Further information obtainable by contacting:** sds@reagecon.ie1.4 Emergency telephone number:**

National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

For Hazardous Materials [or Dangerous Goods] Incident
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC

For Ireland call +(353)-19014670

For Outside Ireland call +1 703-741-5970 / 1-800-424-9300 CCN849800

SECTION 2: Hazards identification***2.1 Classification of the substance or mixture*****Classification according to Regulation (EC) No 1272/2008**

GHS06 skull and crossbones

Acute Tox. 2 H330 Fatal if inhaled.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

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***Hazard pictograms**



GHS05 GHS06

***Signal word** Danger

***Hazard-determining components of labelling:**

nitric acid

***Hazard statements**

H330 Fatal if inhaled.

H315 Causes skin irritation.

H318 Causes serious eye damage.

***Precautionary statements**

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P320 Specific treatment is urgent (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

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.

*vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

***3.2 Mixtures**

***Description:** Mixture of substances listed below with nonhazardous additions.

***Dangerous components:**

CAS: 7697-37-2 EINECS: 231-714-2	nitric acid Ox. Liq. 2, H272; Acute Tox. 1, H330; Skin Corr. 1A, H314, EUH071 Specific concentration limits: Ox. Liq. 2; H272: C ≥ 99 % Ox. Liq. 3; H272: 70 % ≤ C < 99 %	≥2.5-<5%
CAS: 7761-88-8 EINECS: 231-853-9	silver nitrate Ox. Sol. 2, H272; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≥0.025-<0.25%

SECTION 4: First aid measures

***4.1 Description of first aid measures**

***After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

***After skin contact:**

Rinse with warm water.

Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if any discomfort continues.

***After eye contact:**

Promptly wash eyes with plenty of water for up to 15 minutes. Open eyes wide apart and rinse well to remove any contact lenses. Do not remove contact lenses by hand. Continue to rinse.. If symptoms persist, consult a doctor.

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***After swallowing:**

Do not induce vomiting; call for medical help immediately. Rinse mouth thoroughly with water and give large amounts of water to drink. Never give anything by mouth to an unconscious person.

***4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media**Suitable extinguishing agents:**

Indications shall be given whether any extinguishing media are inappropriate for a particular situation involving the substance or mixture

Use fire extinguishing methods suitable to surrounding conditions.

***5.2 Special hazards arising from the substance or mixture** No further relevant information available.

5.3 Advice for firefighters**Protective equipment:**

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers

SECTION 6: Accidental release measures

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

Wear protective equipment as described in Section 8 below. Keep unprotected persons away.

***6.2 Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

***6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

***6.4 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.

SECTION 7: Handling and storage

***7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

***Information about fire - and explosion protection:** No special measures required.

7.2 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:** Keep receptacle tightly sealed.

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

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SECTION 8: Exposure controls/personal protection

*8.1 Control parameters

*Ingredients with limit values that require monitoring at the workplace:

CAS: 7697-37-2 nitric acid

<i>WEL</i>	Short-term value: 2.6 mg/m ³ , 1 ppm
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*Additional information: The lists valid during the making were used as basis.

*8.2 Exposure controls

*Appropriate engineering controls No further data; see section 7.

*Individual protection measures, such as personal protective equipment

*General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

*Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Where risk assessment shows air-purifying respirators are appropriate use a respirator with multi-purpose combination (US) or type ABEK (EN14387) respirator cartridges as back up to engineering controls. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

*Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Always ensure that gloves are inspected before use.

Selection of protective gloves must include consideration of the penetration times along with rates of diffusion and degradation. The selected glove should comply with the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it.

*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.

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

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***Penetration time of glove material**

In the absence of data above, the exact break through time has to be sourced from the manufacturer of the protective gloves and has to be observed.

***Eye/face protection**

Tightly sealed goggles: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties**General Information**

*Physical state	Liquid
*Colour:	Colourless
*Odour:	Characteristic
*Odour threshold:	Not determined.
*Melting point/freezing point:	0 °C
*Boiling point or initial boiling point and boiling range	83 °C
*Flammability	Not applicable.
*Lower and upper explosion limit	
*Lower:	Not determined.
*Upper:	Not determined.
*Flash point:	Not applicable.
*Decomposition temperature:	Not determined.
*pH	Not determined.
*Viscosity:	
*Kinematic viscosity	Not determined.
*Dynamic:	Not determined.
*Solubility	
*water:	Fully miscible.
*Partition coefficient n-octanol/water (log value)	Not determined.
*Vapour pressure at 20 °C:	23 hPa
*Density and/or relative density	
*Density at 20 °C:	1.5719 g/cm ³
*Relative density	Not determined.
*Vapour density	Not determined.
*Particle characteristics	Not applicable.

***9.2 Other information**

*Appearance:	
*Form:	Liquid
*Important information on protection of health and environment, and on safety.	
*Ignition temperature:	Product is not selfigniting.
*Explosive properties:	Product does not present an explosion hazard.
*Change in condition	
*Evaporation rate	Not determined.

***Information with regard to physical hazard classes**

*Explosives	Void
*Flammable gases	Void
*Aerosols	Void
*Oxidising gases	Void

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*Gases under pressure	Void
*Flammable liquids	Void
*Flammable solids	Void
*Self-reactive substances and mixtures	Void
*Pyrophoric liquids	Void
*Pyrophoric solids	Void
*Self-heating substances and mixtures	Void
*Substances and mixtures, which emit flammable gases in contact with water	Void
*Oxidising liquids	Void
*Oxidising solids	Void
*Organic peroxides	Void
*Corrosive to metals	Void
*Desensitised explosives	Void

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

- *11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- *Acute toxicity Fatal if inhaled.
- *Primary irritant effect:
- *Skin corrosion/irritation Causes skin irritation.
- *Serious eye damage/irritation Causes serious eye damage.
- *11.2 Information on other hazards

*Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- *12.1 Toxicity
- *Aquatic toxicity: No further relevant information available.
- *12.2 Persistence and degradability No further relevant information available.
- *12.3 Bioaccumulative potential No further relevant information available.
- *12.4 Mobility in soil No further relevant information available.
- *12.5 Results of PBT and vPvB assessment
- *PBT: Not applicable.
- *vPvB: Not applicable.
- *12.6 Endocrine disrupting properties
The product does not contain substances with endocrine disrupting properties.
- *12.7 Other adverse effects
- *Additional ecological information:
- *General notes:
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

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Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

***13.1 Waste treatment methods**

***Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

***Uncleaned packaging:**

***Recommendation:** Disposal must be made according to official regulations.

***Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

***14.1 UN number or ID number**

***ADR, IMDG, IATA**

UN1760

***14.2 UN proper shipping name**

***ADR**

1760 CORROSIVE LIQUID, N.O.S. (NITRIC ACID)

1760 CORROSIVE LIQUID, N.O.S. (NITRIC ACID)

***IMDG, IATA**

CORROSIVE LIQUID, N.O.S. (NITRIC ACID)

***14.3 Transport hazard class(es)**

***ADR, IMDG, IATA**



***Class**

8 Corrosive substances.

***Label**

8

***14.4 Packing group**

***ADR, IMDG, IATA**

III

***14.5 Environmental hazards:**

***Marine pollutant:**

No

***14.6 Special precautions for user**

Warning: Corrosive substances.

***Hazard identification number (Kemler code):**

80

***EMS Number:**

F-A,S-B

***Segregation groups**

(SGG1) Acids, (SGG7) heavy metals and their salts
(including their organometallic compounds)

***Stowage Category**

A

***Stowage Code**

SW2 Clear of living quarters.

***14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

***Transport/Additional information:**

***ADR**

***Limited quantities (LQ)**

5L

***Transport category**

3

***Tunnel restriction code**

E

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***UN "Model Regulation":** UN 1760 CORROSIVE LIQUID, N.O.S. (NITRIC ACID), 8, III

SECTION 15: Regulatory information

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

***Poisons Act**

***Regulated explosives precursors**

CAS: 7697-37-2	nitric acid	3%
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***Regulated poisons**

None of the ingredients is listed.

***Reportable explosives precursors**

None of the ingredients is listed.

***Reportable poisons**

None of the ingredients is listed.

***Directive 2012/18/EU**

***Named dangerous substances - ANNEX I** None of the ingredients is listed.

***National regulations:**

***Waterhazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

***15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.

***Relevant Phrases:**

H272 May intensify fire; oxidiser.
H314 Causes severe skin burns and eye damage.
H330 Fatal if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
EUH071 Corrosive to the respiratory tract.

***Department issuing SDS:** Health and Safety

***Contact:** sds@reagecon.ie

***Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
UK REACH (Registration, Evaluation, Authorisation and restriction of Chemicals)
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Ox. Liq. 2: Oxidizing liquids – Category 2
Ox. Sol. 2: Oxidizing solids – Category 2
Acute Tox. 1: Acute toxicity – Category 1
Acute Tox. 2: Acute toxicity – Category 2

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Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

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