

Safety Data Sheet	Issue no.: 8	Issue Date: 19.09.25	Page 1 of 5	SDS 17
NITRIC ACID + 1000ppm GOLD SOLUTION				

Section 1 – Chemical Product and Company Identification

1.1. Product identifier:

Nitric acid + 1000ppm gold solution.

1.2. Relevant identified uses of the substance or mixture and uses advised against:

To be used as a sample preservative for analytical testing.

1.3. Details of the supplier of the safety data sheet:



ALS Laboratories (UK) Limited

Torrington Avenue,
Coventry, CV4 9GU

1.4. Emergency telephone number

T: +44 (0)24 7642 1213

F: +44 (0)24 7685 6575

Section 2 – Hazards Identification

2.1. Classification of the substance or mixture

Skin corrosion (Category 1A), H314

Serious Eye Damage (Category 1) H314

2.2. Label elements

Pictograms



Signal word: Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220 Keep/Store away from clothing/combustible materials.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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

Safety Data Sheet	Issue no.: 8	Issue Date: 19.09.25	Page 2 of 5	SDS 17
NITRIC ACID + 1000ppm GOLD SOLUTION				

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Supplemental Hazard Statements:

EUH071 Corrosive to the respiratory tract.

Reduced labelling for packages where contents do not exceed 125ml is not applicable.

2.3. Other hazards - none

Section 3 – Composition, Information on Ingredients

3.2. Mixtures

Component	Hazards	Concentration
1000ppm Gold solution	H314	19%
Nitric acid 69-70%	H314.	40.5%
Water	None.	40.5%

Section 4 – First Aid Measures

4.1. Description of first aid measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once. Cover burns with loose sterile non-medicated bandages.

Skin: Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes. Cover burns with a dry sterile bandage (secure, not tight).

Ingestion: Get medical aid at once. Give 1 ounce of milk of magnesia. Give conscious victim large quantities of water to dilute acid. Give oxygen if respiration is depressed.

Inhalation: Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air. Maintain airway and blood pressure.

4.2. Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

Treat symptomatically and supportively.

Section 5 – Fire Fighting Measures

5.1. Extinguishing media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

5.2. Special hazards arising from the substance or mixture: Severe explosion hazard by reaction with incompatibles (metallic rs, carbides, hydrogen sulphide, turpentine). In or near fire material emits toxic and reactive nitrogen oxides of gases.

Safety Data Sheet	Issue no.: 8	Issue Date: 19.09.25	Page 3 of 5	SDS 17
NITRIC ACID + 1000ppm GOLD SOLUTION				

5.3. Advice for firefighters: Move container if possible, cool with flooding amounts of water. Avoid breathing corrosive vapours. Negligible fire and explosion hazard for solutions <5%. At higher concentration, increased flammability of combustibles, readily oxidisable materials.

Section 6 – Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures: Protect skin and eyes from spillages.

6.2. Environmental precautions: Prevent spills from entering waterways and sewers.

6.3. Methods and materials for cleaning up: Use a suitable absorbent. Use neutralizing agents if available. Collect into a container, close lid. Dispose as hazardous waste.

6.4. Reference to other sections. See suitable PPE in section 8.

Section 7 – Handling and Storage

7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. Avoid contact with eyes, skin, and clothing. Handle as corrosive liquid, dispense with care; wear protective clothing, gloves, goggles. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8 – Exposure Controls, Personal Protection

8.1. Control parameters: Under EH40 (UK) STEL 1ppm.

8.2. Exposure controls: Eyes: Wear chemical splash goggles and/or face shield. Skin: Wear appropriate acid resistant gloves, apron, and/or clothing. Clothing: Wear appropriate clothing to prevent skin exposure.

Section 9 – Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Clear liquid

Appearance: colourless

Odour: acid odour

pH: acidic

Vapour Pressure: 14 mm Hg @25c

Vapour Density: 0.7 - 2.2

Evaporation Rate:>1 (ether=1)

Viscosity: Not available.

Boiling Point: 181-212 deg F

Freezing/Melting Point:-44 - 32 deg F

Safety Data Sheet	Issue no.: 8	Issue Date: 19.09.25	Page 4 of 5	SDS 17
NITRIC ACID + 1000ppm GOLD SOLUTION				

Solubility: Soluble.

Specific Gravity/Density: 1.0-1.5

9.2. Other information

Section 10 – Stability and Reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal temperatures and pressures up to boiling point. Nitric oxides quietly evolved - sunlight catalyses oxide formation (yellow colour, aging).

10.3. Possibility of hazardous reactions

Hazardous Polymerization: Has not been reported.

10.4. Conditions to avoid

Incompatible materials, easily oxidized materials.

10.5. Incompatible materials

Metals, acetic acid, acetic anhydride, acrylonitrile, alcohols, anhydrides, fluorine, organic acids, perchlorates, aldehydes (e.g. acetaldehyde, acrolein, chloral hydrate, formaldehyde), ketones (e.g. acetone, acetophenone, MEK, MIBK), metals as powders (e.g. hafnium, raney nickel), organics, carbides, acetonitrile, acetone, arsine, phosphides, dioxides, thiocyanates, inorganic acids, chlorine, cyclic compounds, halides.

10.6. Hazardous decomposition products

Nitrogen oxides, nitric acid vapours, catalysed by sunlight.

Section 11 – Toxicological Information

11.1. Information on toxicological effects:

INHALATION

Corrosive. Causes coughing, dyspnoea. May lead to formation of oedemas in the respiratory tract.

INGESTION

Corrosive. Even small amounts may cause serious damage.

SKIN CONTACT

Causes burns.

EYE CONTACT

Strongly corrosive. Causes severe burns and serious eye damage. Immediate first aid is imperative.

Section 12 – Ecological Information

12.1. Toxicity: No data available.

12.2. Persistence and degradability: No data available.

12.3. Bioaccumulative potential: No data available.

Safety Data Sheet	Issue no.: 8	Issue Date: 19.09.25	Page 5 of 5	SDS 17
NITRIC ACID + 1000ppm GOLD SOLUTION				

12.4. Mobility in soil: No data available.

12.5. Results of PBT and vPvB assessment: No data available.

12.6. Other adverse effects: No data available.

Section 13 – Disposal Considerations

13.1. Waste treatment methods

Reuse or reprocess if possible. Do not dump into any sewers, on the ground, or into any body of water. Any disposal practice must be in compliance with regulations (contact environmental agency for specific rules). Waste characterisation and compliance with applicable laws are the responsibility of the waste generator.

Section 14 – Transport Information

14.1. UN number: UN 2031.

14.2. UN proper shipping name: Nitric acid.

14.3. Transport hazard class(es): 8.

14.4. Packing group: II.

14.5. Environmental hazards: No.

14.6. Special precautions for user: As per section 7.

Section 15 – Regulatory Information

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

CDG (Carriage of Dangerous Goods) Regulations

CLP (Chemicals, Labelling and Packaging) Regulations.

CoSHH (Control of Substances Hazardous to Health) regulations

Hazardous Waste Regulations

PPE Regulations

Workplace Exposure Limits EH40

15.2. Chemical safety assessment: For this product a chemical safety assessment was not carried out.

Section 16 – Other Information

16.1 Other information:

Written by Paul Talbot.

16.2 Date of the latest revision of the SDS:

See document header.