



SAFETY DATA SHEET

Date of issue: 18/09/02

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

Identification of the product

Catalogue No: 29335

ID No.: 1016800

Product name: **Nitric acid GPR**

Use of the substance/preparation: General chemical reagent

Manufacturer/supplier identification

Company: VWR International Ltd
Hunter Boulevard, Magna Park, Lutterworth, Leicestershire, England, LE17 4XN
Telephone : + 44 (0) 1455 558600 Telefax : + 44 (0) 1455 558586

Emergency telephone No.: + 44 (0) 1202 669700

2. Composition/information on ingredients

Chemical characterization

Acid

Product name: Nitric acid 20-70%

CAS number: 7697-37-2

EC-No.: 231-714-2

EC Index No.: 007-004-00-1

Molecular formula: $\text{HNO}_3 = 63.01 \text{ g/mol}$

3. Hazards identification

Causes severe burns.

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 obtain medical attention.
- Skin contact: Wash off 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:

May ignite combustible material. May evolve toxic fumes in fire.

Suitable extinguishing media:

Water spray

6. Accidental release measures

Wear appropriate protective clothing. Inform others to keep at a safe distance.

Spread soda ash liberally over the spillage. If local regulations permit, mop up cautiously with plenty of water and run to waste, diluting greatly with running water. Otherwise transfer to container and arrange removal by disposal company. Wash site of spillage thoroughly with water.

For large spillages liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages.

7. Handling and storage

Handling:

Work under fume extractor. Do not inhale substance. Avoid contact with skin and eyes. Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance. Do not empty into drains, dispose of this material and its container in a safe way.

Unsuitable working materials: metals.

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 - Nitric acid:

Long term: 5.2 mg/m³ (2 ppm) Short term: 10 mg/m³ (4 ppm)

Monitoring procedure:

Using a suitable pump, draw a known quantity of workplace air through an absorption tube calibrated for the material concerned.

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: Positive-pressure hood when vapours are generated.
- Ventilation: Fume cupboard
- Gloves: High grade PVC. Gloves subject to permeation or any sign of degradation must be removed and replaced immediately.
- Eye Protection: Goggles or face-shield
- Other Precautions: Plastic apron, sleeves, boots - if handling large quantities

9. Physical and chemical properties

General information:

Form: liquid
Colour: colourless to slightly yellowish
Odour: pungent

Health, safety and environmental information:

Melting temperature -42°C
Boiling temperature ~86°C
Density(g/ml) ~1.4
Vapour pressure 62mmHg, 25°C
Solubility in water Miscible in all proportions
pH value <1
Flash point Not applicable (Not combustible.)

10. Stability and reactivity

discoloration during storage.

Substances to be avoided

organic combustible substances, oxidizable substances, organic solvents, alcohols, ketones, aldehydes, amines, anilines, nitriles, organic nitro compounds, hydrazine and derivatives, acetylidene, metals, metal alloys, metallic oxides, alkali metals, alkaline earth metals, ammonia, bases, acids, hydrides, halogens, halogen compounds, nonmetallic oxides, nonmetallic halides, nonmetallic hydrogen compounds, nonmetals, phosphides, nitrides, lithium silicide, hydrogen peroxide.

The possibility of reaction with other substances cannot be excluded.

Hazardous decomposition products: nitrous gases.

11. Toxicological information

Strongly corrosive substance.

- After skin contact: Burns.
- After eye contact: Burns. Risk of blindness!
- After inhalation of vapours: coughing, dyspnoea. Inhalation may lead to the formation of oedemas in the respiratory tract.
- After ingestion: tissue damage (mouth, oesophagus, gastrointestinal tract), severe pain (risk of perforation!), bloody vomiting, death.

Further data

No data

12. Ecological information

Adverse ecological effects cannot be excluded in the event of improper handling or disposal. Harmful effect due to pH shift.

Further ecological data:

The following applies to nitrates in general: may contribute to the eutrophication of water supplies. Hazard for drinking water.
Fish: LC50 > 500 mg/l.

Remarks:

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

13. Disposal considerations

Chemical residues are generally classified as hazardous or special waste, and as such are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company. Rinse out empty containers thoroughly before returning for recycling.

14. Transport information

UN-No.: 2031

Class: 8

Packaging group: II

Proper shipping name: NITRIC ACID

15. Regulatory information

Labelling according to EC directives

Symbol(s): C Corrosive.

R-phrases: R35

Causes severe burns.

S-phrases: S23A-26-36/37/39-45

Do not breathe fumes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

EC-No.: 231-714-2

Local Regulations

Within the UK, the use of this material must be assessed under the Control of Substances Hazardous to Health (COSHH) regulations.

16. Other information

Revision.

Supersedes issue of 23/01/01

Changes in Section : 8,12

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