

SAFETY DATA SHEET

1. Identification of the substance / preparation and company.

1.1 Product identifier

Product Nr. CL05.1912
Trade name Nitric acid 4 mol/l
REACH Registration Number 01-2119487297-23
CAS-No. 7697-37-2

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

Identified uses: Reagent for analysis
In compliance with the conditions described in the annex to this safety data sheet.

1.3 Information provided by AnalytiChem Belgium NV product service.

Responsible department: AnalytiChem Belgium NV
Industriezone "De Arend" 2
B-8210 Zedelgem
BELGIUM
Tel. +32 50 28 83 20 e-mail: info.be@analytichem.com

1.4 Emergency telephone: 00 (32) 50.28.83.20

2. Hazard identification

2.1 Classification of the substance or the mixture (EG 1272/2008)

Skin corrosion/irritation, Categorie 1A, H314
Substance or mixture corrosive to metals, Categorie 1, H290

For the full text of H-sentences mentioned in this Section, see Section 16

For the full text of R-sentences mentioned in this Section, see Section 16

2.2 GHS-Labeling

GHS-Labeling Labelling (REGULATION (EC) No 1272/2008) (EG 1272/2008)
Hazard pictograms:



Signal word:
Danger :

Hazard statements:

H314 Causes severe skin burns and eye damage.
H290 May be corrosive to metals.
EUH071 Corrosive to the respiratory tract.

Precautionary statements:

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

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 or doctor/physician.

Reduced labelling

Hazard pictograms:



Signal word:

Danger :

Hazard statements:

H314

Causes severe skin burns and eye damage.

Precautionary statements:

P280

Wear protective gloves, protective clothing, eye protection, face protection.

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 or doctor/physician.

3. Composition / Information on ingredients.

3.1 Substance

Not applicable

3.2 Mixture

CAS-No.	7697-37-2
EC-Nr	231-714-2
Index-No	007-004-00-1
Formula	HNO3/H2O

4. First aid measures.

4.1 Description of first aid measures

General advice

First-aid personnel: ensure self-protection!

After inhalation: Remove to fresh air, seek medical advice.

After contact with skin: Wash off with plenty of water. Dab with polyethylene glycol 400. Remove contaminated clothing. Immediately call in physician.

After contact with eyes: Rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call an ophtalmologist.

After ingestion: Never give anything by mouth to an unconscious person. Make victim drink water (two glasses at most), avoid vomiting (risk of perforation!). Immediately call in physician. Do not attempt to neutralize.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Fire fighting measures.

5.1 Extinguishing media

Suitable extinguishing media

In adaption to materials stored in the immediate neighbourhood.

Unsuitable extinguishing media

Cool container with spray water from a safe distance. Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

5.2 Special hazards arising from substance or mixture

Non-combustible. Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

5.4 Further information

No data available

6. Accidental release measures.

6.1 Personal precautions, protective equipment and emergency procedures

Do not inhale vapours/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms. For personal protection see section 8.

6.2 Environmental precautions

Do not allow to enter sewerage system.

6.3 Methods and materials for containment and cleaning up

Absorb on vermiculite, sand or a pillow from Chemical Spill Center.

6.4 Reference to other sections

For disposal see section 13.

7. Handling and storage.

7.1 Precautions for safe handling

Use skin, hand and eye protection
For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities

Corrosives-area. Keep container tightly closed.
Recommended storage temperature see product label.

7.3 Specific end use(s)

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

8. Exposure controls - Personal protection.

8.1 Control parameters

8.2 Exposure controls

Engineering measures

Protective clothing should be selected specifically for the working place, depending on concentration and

quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

See section 7.1

Individual protection measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance. Under no circumstances eat or drink at workplace. Work under hood . Do not inhale substance.

Respiratory protections

Required when vapours/aerosols are generated.

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Eye protection

Required.

Hand protection

Required.

Body protection

Required.

Environmental exposure controls

Do not allow to enter sewerage system.

9. Physical and chemical properties.

9.1 Information on basic physical

Appearance

Form:	Liquid
Colour:	Colourless
Odour:	Odourless

Changes in physical state

Melting Point:	0°C
Boiling point:	100°C
Flash point:	-
Self Ignation temperature:	-
Mol. Weight:	63.01 g/mol
Density:	1,07 g/ml
pH value:	pH < 1
Solubility in water:	soluble
Explosion limits:	

9.2 Other data

No further relevant information available.

10. Stability and reactivity.

10.1 Reactivity

See section 10.3

10.2 Chemical stability

No further relevant information available.

10.3 Possibility of hazardous reactions

Avoid contact with acids, metals, combustible materials, heat and sun light.

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 further relevant information available.

11. Toxicological information.

11.1 Information on toxicological effects

Acute oral toxicity

LD50 orl. rat 430 mg/kg

Acute inhalation toxicity

No further relevant information available.

Acute dermal toxicity

No further relevant information available.

Skin irritation

No further relevant information available.

Eye irritation

No further relevant information available.

Sensitisation

No further relevant information available.

Germ cell mutagenicity

No further relevant information available.

Carcinogenicity

No further relevant information available.

Reproductive toxicity

No further relevant information available.

Teratogenicity

No further relevant information available.

Specific target organ toxicity - single exposure

No further relevant information available.

Specific target organ toxicity - repeated exposure

No further relevant information available.

Aspiration hazard

No further relevant information available.

11.2 Further information

No further relevant information available.

Further data:

Handle in accordance with good industrial hygiene and safety practice..

12. Ecological information.

12.1 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

No further relevant information available.

12.6 Other adverse effects

Do not allow to enter waters, waste water, or soil!

13. Disposal considerations.

Product: Chemicals must be disposed of in compliance with the respective national regulations. Packaging: Chem-lab product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. Transport information.

Land Transport (ADR/RID)

14.1 UN number	UN 2031
14.2 Proper shipping name	Nitric acid other than red fuming, with >20% but <65% nitric acid
14.3 Class	8
14.4 Packing group	II
14.5 Environmentally hazardous	-
14.6 Special precautions for user	yes
Tunnel restriction code	(E)

Inland waterway transport (ADN)

Not relevant

Air Transport (IATA)

14.1 UN number	UN 2031
14.2 Proper shipping name	Nitric acid other than red fuming, with >20% but <65% nitric acid
14.3 Class	8
14.4 Packing group	II
14.5 Environmentally hazardous	-
14.6 Special precautions for user	yes

Sea Transport (IMDG)

14.1 UN number	UN 2031
14.2 Proper shipping name	Nitric acid other than red fuming, with >20% but <65% nitric acid
14.3 Class	8
14.4 Packing group	II
14.5 Environmentally hazardous	-
14.6 Special precautions for user	yes

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

15. Regulatory information.

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

For this product an assessment was not carried out.

15.2 Chemical Safety Assessment

For this product an assessment was not carried out.

16. Other information.

The information and recommendations in this MSDS are to the best of our knowledge, information and belief accurate at the date of publications. Although utmost care has been taken in the composition of this text, the publisher cannot be held responsible for any damage resulting from any possible error in this publications.

Full text of H-Statements referred to under sections 2 and 3.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.