

Safety Data Sheet

#90035011 · Full 16-section SDS

According to Regulation (EC) No 1907/2006

According to Regulation (EC) No 2020/878

PRODUCT	CAS NUMBER	FORMULA	VERSION	REVISION DATE
Nitric Acid 69%	7697-37-2	HNO ₃	10	13 Oct 2026

SECTION 1

Identification

1.1 Product identifier

Product name Nitric Acid 69%

CAS number 7697-37-2

EC / EINECS number 231-714-2

UFI code E8UK-YFWS-5C82-G1F2

Chemical formula HNO₃

Molecular weight 63.013

SMILES [N+](=O)(O)[O-]

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

Research and development, laboratory chemicals, manufacture of substances; not suitable for human consumption or veterinary purposes.

1.3 Details of the supplier of the safety data sheet

Molekula Limited
1 Millennium Way, Newton Aycliffe
Durham, DL5 6JW, United Kingdom
info@molekula.com · +44 (0) 3302 000333

1.4 Emergency telephone number

0344 892 0111 — National Poisons Information Service (NPIS) (United Kingdom — for healthcare professionals (via TOXBASE))

SECTION 2

Hazard identification

2.1 Classification of the substance or mixture

Ox. Liq. 3, H272

Met. Corr. 1, H290

Acute Tox. 3 (inhalation), H331

Skin Corr. 1A, H314

2.2 Label elements



DANGER

CODE	HAZARD STATEMENT
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H272	May intensify fire; oxidizer
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H290	May be corrosive to metals
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H314 (sub cat. 1A)	Causes severe skin burns and eye damage
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H331	Toxic if inhaled
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CODE	PRECAUTIONARY STATEMENT
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P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking
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P220	Keep/Store away from clothing/combustible materials
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P260	Do not breathe dust/fume/gas/mist/vapours/spray
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P280	Wear protective gloves/protective clothing/eye protection/face protection
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P284	Wear respiratory protection
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P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
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2.3 Other hazards

No data available

SECTION 3

Composition / information on ingredients

3.2 Mixtures

Concentration / purity	<i>Not applicable</i>
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Impurities / stabilising additives	<i>Not applicable</i>
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SECTION 4

First-aid measures

4.1 Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing; immediately call a poison center/doctor; give artificial respiration if breathing stops and oxygen if breathing is difficult.
Skin contact	Take off immediately all contaminated clothing, rinse skin with water or shower, and immediately call a poison center/doctor.
Eye contact	Remove contact lenses if present and rinse eyes with water for at least 15 minutes; seek medical attention.
Ingestion	Give water to drink (two glasses at most) and seek medical advice immediately; do not attempt to neutralise.

Get medical attention if any discomfort continues. Show this Safety Data Sheet (SDS) to medical personnel. First aiders/ medical personnel need to protect themselves.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe burns by all exposure routes, serious eye damage, difficulty in breathing, blistering, and severe abdominal pain or internal injury if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically; immediately call a poison center/doctor.

SECTION 5

Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media No specific firefighting procedure given

5.2 Special hazards arising from the substance or mixture

Corrosive

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Nitrous gases (NO_x). May intensify fire; oxidiser. Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Evacuate area, avoid breathing gas/fume/vapours/spray, and cool heat-exposed containers with water spray, removing them if no risk is involved.

SECTION 6

Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dust/fume/gas/mist/vapours/spray, provide adequate ventilation, and avoid contact with skin and eyes; see section 8 for PPE.

6.2 Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3 Methods and material for containment and cleaning up

Collect spillage with shovel, broom or the like and reuse if possible; dispose of large amounts according to agreement with local authorities.

6.4 Reference to other sections

For specific precautions, see Section 8 and Section 13.

SECTION 7

Handling & storage

7.1 Precautions for safe handling

Wear protective clothing, gloves, eye and face protection; avoid contact with skin and eyes; do not breathe vapours; avoid ingestion and inhalation; observe good chemical hygiene.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature Ambient

Conditions for safe storage (incompatibilities) Store at ambient temperature in a dry place in a closed container, protected from light; no metal containers (storage class 5.1 oxidiser, corrosive).

7.3 Specific end use(s)

See Section 1.2.

SECTION 8

Exposure controls / personal protection

8.1 Control parameters

Occupational exposure limits (OEL / WEL) None known through occupational exposure.

DNEC/PNEC data Nitric acid ($C \leq 70\%$) DNEL inhalation, local: workers 2.6 mg/m^3 (long and short term); consumers 1.3 mg/m^3 (long and short term).

8.2 Exposure controls

Eye / face protection	Chemical splash goggles Wear eye/face protection as recommended. All eye/face protection should comply with EN ISO 16321-1:2022.
Skin / hand protection	Wear butyl rubber gloves (0.7 mm thickness, breakthrough time 8 hours) with long sleeves; inspect gloves before use and wash skin thoroughly after handling.
Respiratory protection	Self-contained breathing apparatus Keep self-contained breathing apparatus readily available for emergency use. Provide adequate ventilation. If ventilation is insufficient, suitable respiratory protection must be provided. Respiratory equipment: Reusable Air-Purifying Respirator (APR). Filter type: ABEK. Standard: EN 14387.
Other protection	Use gloves with long sleeves; practise good personal hygiene and wash contaminated skin thoroughly after handling.
Environmental exposure controls	Avoid discharge into drains.

SECTION 9

Physical & chemical properties

9.1 Information on basic physical and chemical properties

Appearance / physical state	Liquid DERIVED FROM: LITERATURE
Colour	Colourless to pale yellow DERIVED FROM: LITERATURE
Odour	Not known DERIVED FROM: LITERATURE
Melting / freezing point	-41 °C DERIVED FROM: LITERATURE
Boiling point	122 °C DERIVED FROM: LITERATURE
Flammability	<i>No data available</i>
Lower and upper explosion limit	<i>No data available</i>
Flash point	<i>Not applicable</i>
Auto-ignition temperature	<i>No data available</i>
Decomposition temperature	<i>No data available</i>
pH	<1 DERIVED FROM: LITERATURE
Acidity	Acid DERIVED FROM: LITERATURE
Kinematic viscosity	<i>No data available</i>
Solubility	Miscible with water DERIVED FROM: LITERATURE

Partition coefficient n-octanol/water (log value)	No data available
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Vapour pressure	9.4 hPa DERIVED FROM: LITERATURE
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Density (g/mL)	1.41 g/mL DERIVED FROM: LITERATURE
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Relative vapour density	No data available
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Particle characteristics	No data available
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9.2 Other information

No data available

SECTION 10

Stability & reactivity

10.1 Reactivity

There are no known reactivity hazards associated with this product.

10.2 Chemical stability

Not applicable

10.3 Possibility of hazardous reactions

Known reaction partners of water.

10.4 Conditions to avoid

Protect from light, including direct sunrays.

10.5 Incompatible materials

Strong oxidising agents; metals.

10.6 Hazardous decomposition products

See section 5.

SECTION 11

Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (LD50 / LC50)	Classification criteria not met; LC50 inhalation (rat, 4 h, OECD 403) > 2.65 mg/L air; intratracheal (hamster) 0.5 mL/kg.
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Skin corrosion / irritation	Based on available data, the classification criteria are not met.
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Eye corrosion / irritation	Based on available data, the classification criteria are not met.
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Respiratory / skin sensitisation	Based on available data, the classification criteria are not met.
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Carcinogenicity	Classification criteria not met; oral NOAEL 2000 mg/kg bw/day (rat, 123 weeks) negative.
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Mutagenicity	Classification criteria not met; Ames test (OECD 471) negative, some oral in vivo results positive.
Reproductive toxicity	Classification criteria not met; oral NOAEL 1500 mg/kg bw/day (rat, OECD 422), no reproductive, developmental or maternal effects observed.
STOT (single / repeated exposure)	STOT single and repeated exposure: classification criteria not met; inhalation LOAEL 15 mg/m ³ (rat, 90 days, nose) adverse effects observed.
Aspiration hazard	Based on available data, the classification criteria are not met.

11.2 Information on other hazards

No data available

SECTION 12

Ecological information

12.1 Toxicity

Fish

LC50 (96 h) >= 1000 mg/L

Crustacea

Daphnia magna EC50 (48 h) = 490 mg/L, EC50 (24 h) = 8609 mg/L

Algae

NOEC = 6.75 mmol/L; activated sludge EC50 (3 h) > 1000 mg/L;

chronic fish NOEC 58-268 mg/L (30-32 days).

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Nitric acid: Not PBT / Not vPvB

12.6 Endocrine disrupting properties

See Section 11.2.

12.7 Other adverse effects

No data available

SECTION 13

Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14

Transport information

14.1 UN number or ID number

UN2031

14.2 UN proper shipping name

NITRIC ACID

14.3 Transport hazard class(es)

8 (5.1)



14.4 Packing group

II

14.5 Environmental hazards

Yes

14.6 Special precautions for user

Special precautions for user Tunnel restriction code: E; Transport category: 2; IMDG EmS: F-A, S-Q.

Transport category 2

Tunnel code (E)

Packing instruction (ADR) P001

Packing instruction (IMDG) P001

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15

Regulatory information

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

Substance-specific regulations (e.g. licences)	Seveso III Directive 2012/18/EU (control of major-accident hazards); Directive 94/33/EC (protection of young people at work).
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REACH code	Y110
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ECHA notification	<i>Not applicable</i>
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15.2 Chemical safety assessment

No

SECTION 16

Other information

Revision notes / other information	This version (v10) was created on 13.10.2026 and replaces v1 (07.07.2026) with H302, H315, H317, H318, H335 and H412
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This Safety Data Sheet was generated automatically from the data Molekula holds against this product, in the 16-section GHS/CLP format. Fields shown as "No data available" carry no recorded value; fields shown as "Not applicable" were assessed as not relevant to this substance. For queries, contact Molekula at info@molekula.com.