Nitric acid 67-69% TGR for trace analysis (ppb)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Date of issue: 11/03/2025 Revision date: 26/11/2024 Version: 2.4

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	:	Mixture
Name	:	Nitric acid
Trade name	:	Nitric acid 67-69% TGR for trace analysis (ppb)
UFI	:	KH50-90G3-H00J-5JF1
EC-No.	:	231-714-2
CAS-No.	:	7697-37-2
Product code	:	NIAC-TGR
Formula	:	HNO3

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

No additional information available

1.3. Details of the supplier of the safety data sheet

labbox labware s.l.
Migjorn, 1
P.O. Box Barcelona (SPAIN)
08338 Premia de Dalt, SPAIN
ES
T +34 937 07 79 70, F +34 937 909 532
info@labbox.com, www.labbox.com

1.4. Emergency telephone number

Emergency number : +34 937 077 970 (For technical information_Office Hours) In case of medical emergency phone 112 or to your local emergency number.

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Oxidising Liquids, Category 3	H272
Corrosive to metals, Category 1	H290
Skin corrosion/irritation, Category 1A	H314

Full text of H and EUH statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS03 GHS05

Signal word (CLP) : Danger

Hazard statements (CLP)	:	H272 - May intensify fire; oxidiser. H290 - May be corrosive to metals. H314 - Causes severe skin burns and eye damage.
Precautionary statements (CLP)	:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P220 - Keep away from clothing and other combustible materials. P234 - Keep only in original packaging. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
EUH-statements	:	EUH071 - Corrosive to the respiratory tract.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
PBT: not relevant – no registration required	Nitric acid

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Component	
Substance(s) not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605	Nitric acid

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Nitric acid	-	60-69	Ox. Liq. 3, H272 Met. Corr. 1, H290 Skin Corr. 1A, H314
WATER	CAS-No.: 7732-18-5 EC-No.: 231-791-2	Balance	Not classified

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits (%)**
Nitric acid	-	(5 ≤ C < 20) Skin Corr. 1B; H314 (20 ≤ C ≤ 65) Met. Corr. 1; H290 (20 ≤ C ≤ 65) Skin Corr. 1A; H314 (65 ≤ C < 100) Ox. Liq. 3; H272 (65 ≤ C < 100) Met. Corr. 1; H290 (65 ≤ C < 100) Skin Corr. 1A; H314

Full text of H and EUH statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Get medical advice/attention.

First-aid measures after skin contact : Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Get immediate medical advice/attention.

First-aid measures after eye contact : Immediately rinse with water for a prolonged period while holding the eyelids wide open. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth out with water. Do not induce vomiting. Get medical advice/attention.

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

No additional information available

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

Never give anything by mouth to an unconscious person.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Foam.

Unsuitable extinguishing media : powder, carbon dioxide.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Emergency procedures : Evacuate area. Ventilate spillage area.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Collect spillage.

6.4. Reference to other sections

See Heading 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wear personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in a well-ventilated place. Keep container tightly closed.

Switzerland

Storage class (LK) : LK 5 - Oxidizing materials

7.3. Specific end use(s)

Laboratory chemicals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

Nitric acid	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Nitric acid
IOEL STEL	2,6 mg/m³
	1 ppm
France - Occupational Exposure Limits	
Local name	Acide nitrique
VLE (OEL Ceiling/STEL)	2,6 mg/m³
	1 ppm
Remark	Valeurs règlementaires indicatives
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Salpetersäure
AGW (OEL TWA)	2,6 mg/m³
	1 ppm
Remark	EU,13,16
Italy - Occupational Exposure Limits	
Local name	Acido nitrico
OEL STEL	2,6 mg/m³
	1 ppm
Portugal - Occupational Exposure Limits	
Local name	Ácido nítrico
OEL TWA	2 ppm
OEL STEL	4 ppm
Spain - Occupational Exposure Limits	
Local name	Ácido nítrico
VLA-EC (OEL STEL)	2,6 mg/m³
	1 ppm

Nitric acid	
Remark	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país).
United Kingdom - Occupational Exposure Limits	
Local name	Nitric acid
WEL STEL	2,6 mg/m³
	1 ppm

DNEL and PNEC

Nitric acid 67-69% TGR for trace analysis (ppb) (7697-37-2)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	2,6 mg/m³
Long-term - local effects, inhalation	1,3 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	1,3 mg/m³
Long-term - local effects, inhalation	0,65 mg/m³

8.2. Exposure controls

Personal protection equipment

Personal protective equipment:
Avoid all unnecessary exposure. EN 374.
Personal protective equipment symbol(s):

Eye and face protection

Eye protection:
Protective goggles (EN 166)

Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves against chemicals (EN 374)

Respiratory protection

Respiratory protection:
Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	light yellow.
Odour	:	Acrid. strong.
Odour threshold	:	0,29 – 0,98 ppm

Melting point	:	-41 °C 70% w/w
Freezing point	:	Not available
Boiling point	:	119,3 70% w/w
Flammability	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	Not available
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	1 (0.1 M solution)
Viscosity, kinematic	:	Not available
Solubility	:	Material highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	0,37 kPa 70% w/w
Vapour pressure at 50 °C	:	Not available
Density	:	Not available
Relative density	:	1,5129 Type: 'relative density' Temp.: 20 °C
Relative vapour density at 20 °C	:	1,4134 70% w/w
Particle characteristics	:	Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Catches fire spontaneously if exposed to air.

10.2. Chemical stability

No additional information available

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

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

10.5. Incompatible materials

Combustible materials. alkali metals. Bases. Metals. Strong reducing agents.

10.6. Hazardous decomposition products

Nitrogen oxides.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Nitric acid	
LC50 inhalation rat (mg/l)	260 mg/m3

Skin corrosion/irritation	:	Causes severe skin burns. pH: 1 (0.1 M solution)

Nitric acid	
pH	1

Serious eye damage/irritation : Assumed to cause serious eye damage
pH: 1 (0.1 M solution)

Nitric acid	
pH	1

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

Nitric acid 67-69% TGR for trace analysis (ppb) (7697-37-2)	
NOAEL (oral, rat, 90 days)	1500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, gas, 90 days)	2,15 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)

Nitric acid	
NOAEL (oral, rat, 90 days)	1500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation, rat, gas, 90 days)	2,15 ppm Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study), Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)

Aspiration hazard : Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Not classified

Nitric acid 67-69% TGR for trace analysis (ppb) (7697-37-2)	
NOEC chronic fish	97,8 mg/l Test organisms (species): other:Amphiprion ocellaris (anemone fish) Duration: '3 mo'

Nitric acid	
LC50 - Fish [1]	72 mg/l
EC50 - Daphnia [1]	180 mg/l
NOEC chronic fish	97,8 mg/l Test organisms (species): other:Amphiprion ocellaris (anemone fish) Duration: '3 mo'

12.2. Persistence and degradability

Nitric acid 67-69% TGR for trace analysis (ppb) (7697-37-2)	
Persistence and degradability	Rapidly degradable

Nitric acid	
Persistence and degradability	Rapidly degradable

WATER (7732-18-5)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
PBT: not relevant – no registration required	Nitric acid

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Must follow special treatment according to local regulation.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : UN 2031
UN-No. (IMDG) : UN 2031
UN-No. (IATA) : UN 2031
UN-No. (ADN) : UN 2031
UN-No. (RID) : UN 2031

14.2. UN proper shipping name

Proper Shipping Name (ADR) : NITRIC ACID
Proper Shipping Name (IMDG) : NITRIC ACID
Proper Shipping Name (IATA) : Nitric acid
Proper Shipping Name (ADN) : NITRIC ACID
Proper Shipping Name (RID) : NITRIC ACID
Transport document description (ADR) (ADR) : UN 2031 NITRIC ACID (), 8 (5.1), II, (E)
Transport document description (IMDG) : UN 2031 NITRIC ACID, 8 (5.1), II
Transport document description (IATA) : UN 2031 Nitric acid, 8 (5.1), II
Transport document description (ADN) : UN 2031 NITRIC ACID, 8 (5.1), II
Transport document description (RID) : UN 2031 NITRIC ACID, 8 (5.1), II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 8 (5.1)

Danger labels (ADR) : 8, 5.1

:

IMDG

Transport hazard class(es) (IMDG) : 8 (5.1)

Danger labels (IMDG) : 8, 5.1

:

IATA

Transport hazard class(es) (IATA) : 8 (5.1)

Danger labels (IATA) : 8, 5.1

:

ADN

Transport hazard class(es) (ADN) : 8 (5.1)

Danger labels (ADN) : 8, 5.1

:

RID

Transport hazard class(es) (RID) : 8 (5.1)

Danger labels (RID) : 8, 5.1

:

14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-Q

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	CO1
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001, IBC02
Special packing provisions (ADR)	:	PP81, B15
Mixed packing provisions (ADR)	:	MP15
Portable tank and bulk container instructions (ADR)	:	T8
Portable tank and bulk container special provisions (ADR)	:	TP2
Tank code (ADR)	:	L4BN
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	2
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV24
Hazard identification number (Kemler No.)	:	85
Orange plates	:	
Tunnel restriction code (ADR)	:	E
EAC code	:	2P
APP code	:	B

Transport by sea

Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
Special packing provisions (IMDG)	:	PP81
IBC packing instructions (IMDG)	:	IBC02
IBC special provisions (IMDG)	:	B15, B20
Tank instructions (IMDG)	:	T8
Tank special provisions (IMDG)	:	TP2
Stowage category (IMDG)	:	D
Segregation (IMDG)	:	SGG1A, SG6, SG16, SG17, SG19, SG36, SG49
Properties and observations (IMDG)	:	Colourless liquid. Oxidant; may cause fire in contact with organic materials such as wood, cotton or straw, evolving highly toxic gases (brown fumes). Highly corrosive to most metals. Causes severe burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA)	:	E0
PCA Limited quantities (IATA)	:	Forbidden
PCA limited quantity max net quantity (IATA)	:	Forbidden
PCA packing instructions (IATA)	:	Forbidden
PCA max net quantity (IATA)	:	Forbidden
CAO packing instructions (IATA)	:	855
CAO max net quantity (IATA)	:	30L
Special provisions (IATA)	:	A1
ERG code (IATA)	:	8L

Inland waterway transport

Classification code (ADN)	:	CO1
Limited quantities (ADN)	:	1 L
Excepted quantities (ADN)	:	E2
Carriage permitted (ADN)	:	T
Equipment required (ADN)	:	PP, EP
Number of blue cones/lights (ADN)	:	0

Rail transport

Classification code (RID)	:	CO1

Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001, IBC02
Special packing provisions (RID)	:	PP81, B15
Mixed packing provisions (RID)	:	MP15
Portable tank and bulk container instructions (RID)	:	T8
Portable tank and bulk container special provisions (RID)	:	TP2
Tank codes for RID tanks (RID)	:	L4BN
Special provisions for RID tanks (RID)	:	TU42
Transport category (RID)	:	2
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW24
Colis express (express parcels) (RID)	:	CE6
Hazard identification number (RID)	:	85

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

National regulations

Germany

VOC ordinance (ChemVOCFarbV) :

Employment restrictions	:	Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
Water hazard class (WGK)	:	WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).
Chemicals Prohibition Ordinance (ChemVerbotsV)	:	This product is subject to ChemVerbotsV Annex 2 Entry 2. The following requirement must be observed: Basic requirements for the implementation of the submission (according to § 8 paragraph 1, 3 and 4).
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	:	None of the components are listed

Denmark

Danish National Regulations	:	Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:	
Met. Corr. 1	Corrosive to metals, Category 1
Ox. Liq. 3	Oxidising Liquids, Category 3
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
EUH071	Corrosive to the respiratory tract.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.