Safety data sheet

according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

Printing date 26.01.2023 *Version number 6.0 (replaces version 5.0)* *Revision: 26.01.2023*

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

· ***1.1 Product identifier***

· ***Trade name:*** Nitric acid, 69%, Ultratrace®, ppb-trace analysis grade

· ***Article number:*** AC1617
· ***Registration number***
A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
· ***1.2 Relevant identified uses of the substance or mixture and uses advised against***
No further relevant information available.
· ***Application of the substance / the preparation:*** Laboratory reagent

· ***1.3 Details of the supplier of the safety data sheet***
· ***Manufacturer/Supplier:***
Scharlab, S.L.
C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa
08181 Sentmenat (Barcelona) SPAIN
Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65
email: scharlab@scharlab.com
Internet Web Site: www.scharlab.com
· ***Regional representation:***
Scharlab, S.L.
C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa
08181 Sentmenat (Barcelona) SPAIN
Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65
email: scharlab@scharlab.com
Internet Web Site: www.scharlab.com

· ***Further information obtainable from:*** technical department
· ***1.4 Emergency telephone number:***
Toxicological Information National Institute of Toxicology and Forensic Sciences: + 34 91 562 04 20. The information will be provided (24h/365 days)
Please contact the regional Scharlab distributor/dealer in your country
During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

SECTION 2: Hazards identification

· ***2.1 Classification of the substance or mixture***
· ***Classification according to Regulation (EC) No 1272/2008***


flame over circle

Ox. Liq. 3 H272 May intensify fire; oxidiser.


skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.


corrosion

Met. Corr.1 H290 May be corrosive to metals.
Skin Corr. 1A H314 Causes severe skin burns and eye damage.

(Contd. on page 2)

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according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

Printing date 26.01.2023 *Version number 6.0 (replaces version 5.0)* *Revision: 26.01.2023*

Trade name: Nitric acid, 69%, Ultratrace®, ppb-trace analysis grade

(Contd. of page 1)

Eye Dam. 1 H318 Causes serious eye damage.

· ***2.2 Label elements***
· ***Labelling according to Regulation (EC) No 1272/2008***
The product is classified and labelled according to the GB CLP regulation.
· ***Hazard pictograms***

GHS03 GHS05 GHS06

· ***Signal word*** Danger

· ***Hazard-determining components of labelling:***
nitric acid
· ***Hazard statements***
H272 May intensify fire; oxidiser.
H290 May be corrosive to metals.
H331 Toxic if inhaled.
H314 Causes severe skin burns and eye damage.
· ***Precautionary statements***

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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/doctor.
P370+P378	In case of fire: Use CO2, powder or water spray to extinguish.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· ***2.3 Other hazards***
· ***Results of PBT and vPvB assessment***
· ***PBT:*** Not applicable.
· ***vPvB:*** Not applicable.

SECTION 3: Composition/information on ingredients

· ***3.2 Mixtures***
· ***Description:*** Aqueous solution

· ***Dangerous components:***

CAS: 7697-37-2 EINECS: 231-714-2 Reg.nr.: 01-2119487297-23-XXXX	nitric acid Ox. Liq. 2, H272; Acute Tox. 3, H331; Met. Corr.1, H290; Skin Corr. 1A, H314, EUH071 Specific concentration limits: Ox. Liq. 2; H272: C ≥ 99% Ox. Liq. 3; H272: 70 % ≤ C < 99 %	≥50-<70%

· ***Additional information:*** For the wording of the listed hazard phrases refer to section 16.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

Printing date 26.01.2023 *Version number 6.0 (replaces version 5.0)* *Revision: 26.01.2023*

Trade name: Nitric acid, 69%, Ultratrace®, ppb-trace analysis grade

(Contd. of page 2)

SECTION 4: First aid measures

· ***4.1 Description of first aid measures***
· ***General information:*** Immediately remove any clothing soiled by the product.
· ***After inhalation:*** In case of unconsciousness place patient stably in side position for transportation.
· ***After skin contact:***
Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.
Immediately wash with water and soap and rinse thoroughly.
· ***After eye contact:***
Seek medical treatment.
Rinse opened eye for several minutes under running water. Then consult a doctor.
· ***After swallowing:***
Rinse mouth and drink water (2 glasses) if the affected is conscious. Seek medical help immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
· ***4.2 Most important symptoms and effects, both acute and delayed***
No further relevant information available.
· ***4.3 Indication of any immediate medical attention and special treatment needed***
It is highly recommended that near jobs there emergency showers and eyewash.
If available, it is recommended after washing with water in skin burn apply a diluted solution of calcium bicarbonate to neutralize the acid.

For any contact, immediately remove contaminated clothing.

SECTION 5: Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents:***
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Do NOT use pressurized water.
· ***For safety reasons unsuitable extinguishing agents:*** Pressurized water jet
· ***5.2 Special hazards arising from the substance or mixture***
Move containers to an area that offers security, provided that this operation can be performed safely.
Promotes the formation of oxygen evolution fires.
There is a possible formation of toxic gases if heated or fire. hazardous decomposition products such as nitrogen oxides (NOx), nitrous gases.
· ***5.3 Advice for firefighters*** Should suppress gases / vapors / mists with water spray
· ***Protective equipment:***
In the work of extinction it is necessary to provide respiratory protection and full chemical protective clothing.
Protection of the skin, keep a safety distance and wear suitable protective clothing.
Stay in danger area only with artificial systems and independent breathing apparatus.
· ***Additional information***
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· ***6.1 Personal precautions, protective equipment and emergency procedures***
Wear protective equipment. Keep unprotected persons away.
· ***6.2 Environmental precautions:***
Dilute with plenty of water.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

Printing date 26.01.2023 *Version number 6.0 (replaces version 5.0)* *Revision: 26.01.2023*

Trade name: Nitric acid, 69%, Ultratrace®, ppb-trace analysis grade

(Contd. of page 3)

Do not allow to enter sewers/ surface or ground water.
· ***6.3 Methods and material for containment and cleaning up:***
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
· ***6.4 Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· ***7.1 Precautions for safe handling***
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· ***Information about fire - and explosion protection:*** No special measures required.

· ***7.2 Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:*** No special requirements.
· ***Information about storage in one common storage facility:*** Not required.
· ***Further information about storage conditions:***
Keep container tightly sealed.
See product's label for recommended storage temperature.
· ***7.3 Specific end use(s)*** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· ***8.1 Control parameters***
· ***Ingredients with limit values that require monitoring at the workplace:***
Methods for measuring the atmosphere of the workplace must meet the requirements of DIN EN 482 and DIN EN 689.

7697-37-2 nitric acid

WEL Short-term value: 2.6 mg/m³, 1 ppm
· ***Additional information:*** The lists valid during the making were used as basis.

· ***8.2 Exposure controls***
· ***Appropriate engineering controls*** No further data; see item 7.
· ***Individual protection measures, such as personal protective equipment***
· ***General protective and hygienic measures:***
Local exhaust recommended to keep dust emissions or vapors below the lowest permissible exposure level. Regular checks of working environment.
Do not inhale gases / fumes / vapors / aerosols
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· ***Respiratory protection:***
Suitable respiratory protective device recommended.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

(Contd. on page 5)

Safety data sheet
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Printing date 26.01.2023 *Version number 6.0 (replaces version 5.0)* *Revision: 26.01.2023*

Trade name: Nitric acid, 69%, Ultratrace®, ppb-trace analysis grade

(Contd. of page 4)

· ***Hand protection***
Acid resistant gloves


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· ***Material of gloves***
Natural rubber, NR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· ***Penetration time of glove material***
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· ***Eye/face protection***
Face shield or chemical goggles, biker type or diver, tight fitting with plastic glasses or a face shield.
It is generally known that contact lenses should not be used when working with chemicals because they can contribute to the severity of possible eye damage.


Tightly sealed goggles

· ***Body protection:***
Acid resistant protective clothing
Use protective suit.
Protective clothing must have passed the relevant tests by the manufacturer. Clothing should be approved as a type 5 and / or 6.

SECTION 9: Physical and chemical properties

· ***9.1 Information on basic physical and chemical properties***
· ***General Information***

· ***Physical state***	Fluid
· ***Colour:***	Colourless
· ***Odour:***	Pungent
· ***Odour threshold:***	Not determined.
· ***Melting point/freezing point:***	Undetermined.
· ***Boiling point or initial boiling point and boiling range***	83 °C
· ***Flammability***	Contact with combustible material may cause fire.
· ***Lower and upper explosion limit***	
· ***Lower:***	Not determined.
· ***Upper:***	Not determined.
· ***Flash point:***	Not applicable.
· ***Decomposition temperature:***	Not determined.
· ***pH***	Not determined.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

Printing date 26.01.2023 *Version number 6.0 (replaces version 5.0)* *Revision: 26.01.2023*

Trade name: Nitric acid, 69%, Ultratrace®, ppb-trace analysis grade

(Contd. of page 5)

· ***Viscosity:***	
· ***Kinematic viscosity***	Not determined.
· ***Dynamic at 20 °C:***	0.746 mPas
· ***Solubility***	
· ***water:***	Fully miscible.
· ***Partition coefficient n-octanol/water (log value)***	Not determined.
· ***Vapour pressure at 20 °C:***	23 hPa
· ***Density and/or relative density***	
· ***Density at 20 °C:***	1.3496 g/cm³
· ***Relative density***	Not determined.
· ***Vapour density***	Not determined.
· ***9.2 Other information***	Oxidizing properties: May cause fire or explosion; Very oxidizing. The substance or mixture is classified as an oxidizer with category 1. Corrosion: May be corrosive to metals.
· ***Appearance:***	
· ***Form:***	Fluid
· ***Important information on protection of health and environment, and on safety.***	
· ***Auto-ignition temperature:***	Product is not selfigniting.
· ***Explosive properties:***	Product does not present an explosion hazard.
· ***Solvent content:***	
· ***Water:***	30.5 %
· ***Change in condition***	
· ***Evaporation rate***	Not determined.
· ***Information with regard to physical hazard classes***	
· ***Explosives***	Void
· ***Flammable gases***	Void
· ***Aerosols***	Void
· ***Oxidising gases***	Void
· ***Gases under pressure***	Void
· ***Flammable liquids***	Void
· ***Flammable solids***	Void
· ***Self-reactive substances and mixtures***	Void
· ***Pyrophoric liquids***	Void
· ***Pyrophoric solids***	Void
· ***Self-heating substances and mixtures***	Void
· ***Substances and mixtures, which emit flammable gases in contact with water***	Void
· ***Oxidising liquids***	May intensify fire; oxidiser.
· ***Oxidising solids***	Void
· ***Organic peroxides***	Void
· ***Corrosive to metals***	May be corrosive to metals.
· ***Desensitised explosives***	Void

SECTION 10: Stability and reactivity

· ***10.1 Reactivity***
Stable under normal conditions. If used according to the regulation no decomposition occurs.
It is a strong oxidant.

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

Printing date 26.01.2023 *Version number 6.0 (replaces version 5.0)* *Revision: 26.01.2023*

Trade name: Nitric acid, 69%, Ultratrace®, ppb-trace analysis grade

(Contd. of page 6)

· ***10.2 Chemical stability***
· ***Thermal decomposition / conditions to be avoided:*** Avoid: Heat, flame, sparks.
· ***10.3 Possibility of hazardous reactions***
Reacts violently with bases and numerous organic materials, alcohols and amines. Reacts with various metals.
Risk of explosion with:

Acetone, acetonitrile, acetylides, Alcohols, anilines, antimony hydride, arsenic hydride, organic flammable, phosphides, benzene / benzene derivatives, Amines, alkenes, Halogenated hydrocarbon, ether, hydrazine and derivatives, Sulphides, Dioxane, Acetic acid, Anhydride (II) nitrate, hydrochloric acid, hydrochloric acid, glycerine, glycerine, gum, oils, chlorates, potassium permanganate, hydrocarbons, copper, lithium silicide, organic solvent, cyanides, powdered metals, methanol, ketones, organic nitro compounds, Reducing agents, sulfur dioxide, cyanuric complexes, Titanium, hydrogen peroxide / hydrogen peroxide, Staphylococcus, sugar, formaldehyde.
Danger of ignition or formation of combustible gases or vapors with:

Amines, Ammonia, Flammable Substances, Aldehydes, Anilines, Hydrogen Iodide, Potassium, Magnesium, Sodium, Hydrides, Iodides, Phosphorus, Pyridine, Hydrogen Sulfide, Terpentine Oils and / or their Substitutes.
Exothermic reaction with:

Nitriles, Formic Acid, Antimony, Arsenic, Selenium, Boron, Lithium, Non-metal halides, Strong solutions of alkali hydroxides, Halogen halides, Nitrides, Sodium hypochlorite, Iron oxide.
· ***10.4 Conditions to avoid*** Heat, open flames and sparks
· ***10.5 Incompatible materials:*** Cellulose and metals.
· ***10.6 Hazardous decomposition products:***
The action of heat can give off toxic vapors (oxides of nitrogen NOx). Nitrous gases and hydrogen may form on contact with metals.

SECTION 11: Toxicological information

· ***11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008***
· ***Acute toxicity*** Toxic if inhaled.
· ***Skin corrosion/irritation*** Causes severe skin burns and eye damage.
· ***Serious eye damage/irritation*** Causes serious eye damage.
· ***11.2 Information on other hazards***
· ***Endocrine disrupting properties***
None of the ingredients is listed.

SECTION 12: Ecological information

· ***12.1 Toxicity***
· ***Aquatic 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***
· ***PBT:*** Not applicable.
· ***vPvB:*** Not applicable.
· ***12.6 Endocrine disrupting properties***
The product does not contain substances with endocrine disrupting properties.

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

Printing date 26.01.2023 *Version number 6.0 (replaces version 5.0)* *Revision: 26.01.2023*

Trade name: Nitric acid, 69%, Ultratrace®, ppb-trace analysis grade

(Contd. of page 7)

· ***12.7 Other adverse effects***
· ***Additional ecological information:***
· ***General notes:***
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

· ***13.1 Waste treatment methods***
· ***Recommendation***
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· ***Uncleaned packaging:***
· ***Recommendation:*** Disposal must be made according to official regulations.
· ***Recommended cleansing agents:*** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· ***14.1 UN number or ID number***
· ***ADR, IMDG, IATA*** UN2031
· ***14.2 UN proper shipping name***
· ***ADR*** 2031 NITRIC ACID
· ***IMDG, IATA*** NITRIC ACID
· ***14.3 Transport hazard class(es)***

· ***ADR***

· ***Class*** 8 Corrosive substances.
· ***Label*** 8+5.1

· ***IMDG***

· ***Class*** 8 Corrosive substances.
· ***Label*** 8/5.1

· ***IATA***

· ***Class*** 8 Corrosive substances.
· ***Label*** 8 (5.1)
· ***14.4 Packing group***
· ***ADR, IMDG, IATA*** II

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

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Trade name: Nitric acid, 69%, Ultratrace®, ppb-trace analysis grade

(Contd. of page 8)

· ***14.5 Environmental hazards:***
· ***Marine pollutant:*** No
· ***14.6 Special precautions for user*** Warning: Corrosive substances.
· ***Hazard identification number (Kemler code):*** 80
· ***EMS Number:*** F-A,S-B
· ***Segregation groups*** (SGG1) Acids
· ***Stowage Category*** D
· ***Segregation Code*** SG6 Segregation as for class 5.1
SG16 Stow "separated from" class 4.1
SG17 Stow "separated from" class 5.1
SG19 Stow "separated from" class 7
· ***14.7 Maritime transport in bulk according to IMO instruments*** Not applicable.
· ***Transport/Additional information:***

· ***ADR***
· ***Limited quantities (LQ)*** 1L
· ***Transport category*** 2
· ***Tunnel restriction code*** E
· ***UN "Model Regulation":*** UN 2031 NITRIC ACID, 8 (5.1), II

SECTION 15: Regulatory information

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

· ***Directive 2012/18/EU***
· ***Named dangerous substances - ANNEX I*** None of the ingredients is listed.
· ***Seveso category***
H2 ACUTE TOXIC
P8 OXIDISING LIQUIDS AND SOLIDS
· ***Qualifying quantity (tonnes) for the application of lower-tier requirements*** 50 t
· ***Qualifying quantity (tonnes) for the application of upper-tier requirements*** 200 t
· ***15.2 Chemical safety assessment:*** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· ***Relevant phrases***
H272 May intensify fire; oxidiser.
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H331 Toxic if inhaled.
EUH071 Corrosive to the respiratory tract.

· ***Department issuing SDS:*** product safety department
· ***Contact:*** msds@scharlab.com
· ***Abbreviations and acronyms:***
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

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Trade name: Nitric acid, 69%, Ultratrace®, ppb-trace analysis grade

(Contd. of page 9)

GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Ox. Liq. 2: Oxidizing liquids – Category 2
Ox. Liq. 3: Oxidizing liquids – Category 3
Met. Corr.1: Corrosive to metals – Category 1
Acute Tox. 3: Acute toxicity – Category 3
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1