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

1.1. Product identifier

Acid nitricum ≥65%

Item No. 20437700

Substance / product identification

REACH Registry No. 01-2119487297-23-XXXX

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

Use of the substance/preparation

Laboratory chemicals, Chemical for synthesis, Precursor for explosive substances according to VSG (SR 941.42). The provisions of Art. 14 and 15 VSG must be observed when dispensing/supplying.

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG
Industriestrasse 35
9100 Herisau

Telephone no.	0041 (0)71 353 58 58
E-mail address of person responsible for this SDS	sdb@haenseler.ch

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Ox. Liq. 3	H272
Met. Corr. 1	H290
Acute Tox. 3	H331
Skin Corr. 1A	H314
Eye Dam. 1	H318

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008
For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Danger

Hazard statements

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

Precautionary statements

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.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains nitric acid ...% [C <= 70 %]

Reduced labeling (<= 125 ml)

Hazard pictograms

Signal word

Danger

Hazard statements

H331	Toxic if inhaled.
H314	Causes severe skin burns and eye damage.

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P501.3	Disposal in compliance with local and national regulations.

2.3. Other hazards

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients

Hazardous ingredients

nitric acid ...% [C <= 70 %]

CAS No.	7697-37-2				
EINECS no.	231-714-2				
Registration no.	01-2119487297-23-XXXX				
Concentration	>=	65	<	75	%

Classification (Regulation (EC) No. 1272/2008)

Ox. Liq. 3	H272
Met. Corr. 1	H290
Acute Tox. 3	H331
Skin Corr. 1A	H314

Concentration limits (Regulation (EC) No. 1272/2008)

Ox. Liq. 3	H272	>= 65 %
Skin Corr. 1A	H314	>= 20 %
Skin Corr. 1B	H314	>= 5 < 20 %

ATE	oral	1’500	mg/kg
cATpE	inhalative, Dust/Mist	0.5	mg/l
ATE	inhalative, Vapors	2.65	mg/l

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note B

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Adhere to personal protective measures when giving first aid. In any case show the physician the Safety Data Sheet.

After inhalation

Ensure supply of fresh air. Summon a doctor immediately. In case of respiratory arrest induce breathing with a respiratory device. Seek medical advice. If necessary, give oxygen

After skin contact

Remove contaminated, soaked clothing immediately and dispose of safely. In case of contact with skin wash off with water. Summon a doctor immediately.

After eye contact

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Remove contact lenses. Summon a doctor immediately. Eye doctor.

After ingestion

If swallowed: Have the person drink water immediately (up to 2 glasses). Never give anything by mouth to an unconscious person. Summon a doctor immediately. Do not induce vomiting. No trials on neutralisation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguishing measures to suit surroundings

Non suitable extinguishing media

No extinguishing agent restrictions

5.2. Special hazards arising from the substance or mixture

Nitrogen oxides (NOx); The product is not combustible. The product supports fire. If a fire breaks out nearby evolution of dangerous gases possible.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus. Use personal protective clothing.

Other information

Suppress gases/vapours/mists with water spray jet. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not inhale vapours. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Do not empty into drains.

6.3. Methods and material for containment and cleaning up

Seal the sewer. Contain, dam off and pump out. . Take up with absorbent material (eg sand, kieselguhr). Take up mechanically and collect in suitable container for disposal. Clean up affected area.

6.4. Reference to other sections

Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Work only in fume cupboards. Inhalation of vapours or spray/mists. Avoid formation of aerosols. Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

Keep away from ignition sources, fire and open light.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Do not use metal containers and metal pinings. Keep tightly closed in a dry and cool place. Keep under lock and key.

Hints on storage assembly

Do not store with combustible materials.

Storage classes

Storage class according to TRGS 510	5.1A	Highly oxidising hazardous substances
Storage category (Switzerland)	5	Oxidizing substances, organic peroxides

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

nitric acid ...% [C <= 70 %]

Type	MAK			
Short term exposure limit	5	mg/m³	2	ppm(V)
Remarks: OSHA, NIOSH				

8.2. Exposure controls

Respiratory protection

Breathing apparatus in the event of vapours. Multi-purpose filter ABEK; EN 143

Hand protection

The glove material must be sufficient impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location.

Use	Permanent hand contact		
Appropriate Material	Fluoro carbon rubber - FKM		
Material thickness	>	0.7	mm
Breakthrough time		480	min
Use	Short-term hand contact		
Appropriate Material	nitrile rubber - NBR		
Material thickness		0.11	mm
Breakthrough time		30	min

Hand protection must comply with EN 374.

Eye protection

Tightly fitting safety glasses; Eye protection must comply with EN 166.

Body protection

Acid-resistant protective clothing

Environmental exposure controls

Do not allow to enter drains or water courses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state liquid

Colour colourless

Boiling point or initial boiling point and boiling range

Value	122		°C
Pressure	1013	hPa	

Flash point

Value	°C	
Remarks	Not applicable	

pH value

Value	<	1

Vapour pressure

Value	49		hPa
Temperature	50	°C	

Density and/or relative density

Value	1.37	to	1.41	g/cm³
Temperature	20	°C		

SECTION 10: Stability and reactivity

10.1. Reactivity

None known

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

No decomposition if stored and applied as directed.

10.5. Incompatible materials

Metals, acetic acid anhydride, Organic materials, Reactions with alcohols.

10.6. Hazardous decomposition products

In the event of fire the following can be released: nitrous oxides (NOx)

SECTION 11: Toxicological information

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

Acute oral toxicity

ATE	2'145.92 27	mg/kg
Method	calculated value according to GHS (e.g see UN GHS)	
Remarks	Based on available data, the classification criteria are not met.	

Acute oral toxicity (Components)

nitric acid ...% [C <= 70 %]

Species	rat	
NOAEL	1500	mg/g
Duration of exposure	1 d	
Method	OECD 422	

Acute dermal toxicity

Remarks	Based on available data, the classification criteria are not met.

Acute inhalational toxicity

ATE	3.7911	mg/l
Administration/Form	Vapors	
Method	calculated value according to GHS (e.g see UN GHS)	
ATE	0.7153	mg/l
Administration/Form	Dust/Mist	
Method	calculated value according to GHS (e.g see UN GHS)	
Remarks	The classification criteria are met.	

Acute inhalative toxicity (Components)

nitric acid ...% [C <= 70 %]

ATE	2.65	mg/l
Administration/Form	Vapors	

Skin corrosion/irritation

evaluation	corrosive
Remarks	The classification criteria are met.

Skin corrosion/irritation (Components)

nitric acid ...% [C <= 70 %]

evaluation	corrosive

Serious eye damage/irritation

evaluation	corrosive
Remarks	The classification criteria are met.

Serious eye damage/irritation (Components)

nitric acid ...% [C <= 70 %]

evaluation	corrosive

Sensitization

Remarks: Based on available data, the classification criteria are not met.

Mutagenicity

Remarks: Based on available data, the classification criteria are not met.

Mutagenicity (Components)

nitric acid ...% [C <= 70 %]

evaluation: No mutagenicity according to various in vitro tests.
Method: OECD 471

nitric acid ...% [C <= 70 %]

Route of exposure: oral
Species: mouse
evaluation: No experimental indications on genotoxicity in vivo found.

nitric acid ...% [C <= 70 %]

Method: OECD 473

Reproductive toxicity

Remarks: Based on available data, the classification criteria are not met.

Reproduction toxicity (Components)

nitric acid ...% [C <= 70 %]

Route of exposure: oral
Species: rat
Dose: >= 1500 mg/kg/d
evaluation: Based on available data, the classification criteria are not met.
Method: OECD 422

Carcinogenicity

Remarks: Based on available data, the classification criteria are not met.

Carcinogenicity (Components)

nitric acid ...% [C <= 70 %]

Remarks: No data available

Specific Target Organ Toxicity (STOT)

Single exposure

Remarks: Based on available data, the classification criteria are not met.

Repeated exposure

Remarks: Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties with respect to humans

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

SECTION 12: Ecological information

12.1. Toxicity

Fish toxicity (Components)

nitric acid ...% [C <= 70 %]

Species: rainbow trout (Oncorhynchus mykiss)
LC50: 12.5 mg/l

Duration of exposure	96	h

Daphnia toxicity (Components)

nitric acid ...% [C <= 70 %]

Species	Ceriodaphnia dubia	
EC50	4.6	mg/l
Duration of exposure	48 h	
Method	US-EPA	

Bacteria toxicity (Components)

nitric acid ...% [C <= 70 %]

EC0	794	mg/l

12.2. Persistence and degradability

Biodegradability (Components)

nitric acid ...% [C <= 70 %]

Remarks	Inorganic product, cannot be eliminated from the water by biological purification processes.

12.3. Bioaccumulative potential

Octanol/water partition coefficient (log Pow) (Components)

nitric acid ...% [C <= 70 %]

log Pow	-0.21

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

The product contains no PBT substances
The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the envrionment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Disposal in compliance with local and national regulations.

Disposal recommendations for packaging

Dispose of as unused product.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number or ID number	2031	2031	2031
14.2. UN proper shipping name	NITRIC ACID, Solution	NITRIC ACID, Solution	NITRIC ACID, Solution
14.3. Transport hazard class(es)	8	8	8
Subsidiary risk	5.1	5.1	5.1
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 l	1 l	
Transport category	2		
14.5. Environmental hazards	-		
Tunnel restriction code	E		

SECTION 15: Regulatory information

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

Water Hazard Class (Germany)

Water Hazard Class (Germany)	WGK 1
Remarks	Derivation of WGK according to Annex 1 No. 5.2 AwSV

Other information

The product does not contain substances according to Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH) with a content of >= 0.1% w/w.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification (Regulation (EC) No. 1272/2008)

Ox. Liq. 3	H272	On basis of test data
Met. Corr. 1	H290	On basis of test data
Acute Tox. 3	H331	Calculation method
Skin Corr. 1A	H314	Calculation method
Eye Dam. 1	H318	Calculation method

Hazard statements listed in Chapter 2/3

H272	May intensify fire; oxidizer.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.

CLP categories listed in Chapter 2/3

Acute Tox. 3	Acute toxicity, Category 3
Eye Dam. 1	Serious eye damage, Category 1
Met. Corr. 1	Substance or mixture corrosive to metals, Category 1
Ox. Liq. 3	Oxidising liquid, Category 3
Skin Corr. 1A	Skin corrosion, Category 1A

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.