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

1.1. Product identifier

Acid nitricum 10%

Item No. 20437100

Substance / product identification

UFI H6HT-TVCX-PV1A-RTFQ

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)

Met. Corr. 1	H290
Acute Tox. 4	H332
Skin Corr. 1	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

H290	May be corrosive to metals.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
EUH071	Corrosive to the respiratory tract.

Precautionary statements

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

H332	Harmful 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	>=	10	<	13 %

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

Further ingredients

Water

CAS No. 7732-18-5

EINECS no. 231-791-2

Concentration >= 50 %

Advice: [4]

Note

[4] Voluntary information

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from danger area, lay him down. Adhere to personal protective measures when giving first aid. Seek medical advice immediately. Remove contaminated, soaked clothing immediately and dispose of safely.

After inhalation

Remove the casualty into fresh air and keep him calm. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Summon a doctor immediately.

After skin contact

Wash off immediately with soap and water and rinse well. Summon a doctor immediately. Causes severe burns.

After eye contact

Shield unaffected eye. Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice. Summon a doctor immediately.

After ingestion

Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Summon a doctor immediately.

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

Irritating to respiratory system. Irritation of mucosa, Chemical burn, Vomiting

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

Hints for the physician / treatment

Symptomatic treatment (decontamination, vital functions).

Hints for the physician / hazards

Frequent and persistent contact with the skin can cause dermatitis. Risk of stomach perforation

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water mist, Alcohol-resistant foam, Dry chemical extinguisher, Carbon dioxide

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Use self-contained breathing apparatus. Wear full protective suit.

Other information

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away unprotected persons. Wear protective equipment. Ensure supply of fresh air. Avoid contact with eyes and skin. Do not inhale vapours. Respiratory protection

6.2. Environmental precautions

Suppress gases/vapours/mists with water spray jet. Do not discharge into the drains/surface waters/groundwater. Advise water authority if spillage has entered water course or drainage system.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder). When picked up, treat material as prescribed under Section 13 "Disposal". Ensure adequate ventilation. Pick up rest with weakly alkaline solution.

6.4. Reference to other sections

Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed. Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid formation of aerosols. Wear protective equipment. Wear respiratory protection when spraying.

Advice on protection against fire and explosion

The product is not combustible. Oxidizing. Explosive in mixture with organic substances.

7.2. Conditions for safe storage, including any incompatibilities

Recommended storage temperature

Value	<	25	°C

Requirements for storage rooms and vessels

Keep only in original packaging. Provide acid-resistant floor. Use stainless steel containers. Use PVC containers. Use glass containers. Do not use containers, lines etc. made of copper or copper alloys. Do not use zinc containers. Unsuitable materials: Polyethylene, rubber.

Hints on storage assembly

Do not store with combustible materials. Do not store together with textiles.

Storage classes

Storage class according to TRGS 510	8B	Non-combustible corrosive hazardous substances
Storage category (Switzerland)	8	Caustic and corrosive substances

Further information on storage conditions

Keep in a cool place. Keep containers tightly closed in a dry and well-ventilated place.

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

General protective and hygiene measures

Hold eye wash fountain available. Keep away from food-stuffs, beverages and feed-stocks. Remove contaminated, soaked clothing immediately and dispose of safely. Wash hands before breaks and after work. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Observe the usual precautions for handling chemicals.

Respiratory protection

Short term: filter apparatus, combination filter B-P2; Gas filter E. At intensive and longer exposition use self-contained breathing apparatus. EN 14387

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.

Appropriate Material	Fluoro carbon rubber - FKM		
Material thickness		0.4	mm
Breakthrough time	>	480	min
Appropriate Material	Natural Latex		
Material thickness		0.5	mm
Breakthrough time	>	480	min
Appropriate Material	Polychloroprene		
Material thickness		0.5	mm
Breakthrough time	>	480	min
Appropriate Material	Butyl rubber - Butyl		
Material thickness		0.5	mm
Breakthrough time	>	480	min
Appropriate Material	PVC		
Material thickness		0.5	mm
Breakthrough time	>	480	min

Hand protection must comply with EN 374.

Eye protection

Safety glasses with side protection shield; Eye protection must comply with EN 166.

Body protection

Clothing as usual in the chemical industry.

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		
Odour	acrid		
Flash point			
Remarks	Not applicable		
pH value			
Value	<	2	
Temperature		20	°C

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

Keep away from free radical initiators, peroxides, strong alkalis or reactive metals.

10.4. Conditions to avoid

Keep away from sources of heat and ignition. Flames. Sparks. Protect from light.

10.5. Incompatible materials

Avoid contact with: Bases, Reactions with combustible substances. Build-up strong heat when diluted or dissolved in water. Partly very violent reactions with bases and numerous organic classes of substances such as alcohols and amines. Forms nitrous gases and hydrogen on action upon metals.

10.6. Hazardous decomposition products

Hydrogen, Nitrous gases, Corrosive gases/vapours

SECTION 11: Toxicological information

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

Acute oral toxicity

ATE	>	10’000	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		24.6497	mg/l
Administration/Form	Vapors		

Method	calculated value according to GHS (e.g see UN GHS)	
ATE	4.6509	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, (nitric acid ...% [C <= 70 %])	NITRIC ACID, (nitric acid ...% [C <= 70 %])	NITRIC ACID, (nitric acid ...% [C <= 70 %])
14.3. Transport hazard class(es)	8	8	8
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.

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)

Met. Corr. 1	H290	On basis of test data
Acute Tox. 4	H332	Calculation method
Skin Corr. 1	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.
H332	Harmful if inhaled.

CLP categories listed in Chapter 2/3

Acute Tox. 3	Acute toxicity, Category 3
Acute Tox. 4	Acute toxicity, Category 4
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. 1	Skin corrosion, Category 1
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.