

Cloeren Technology Ätzmittel CT alkoholische Salpetersäure 5%

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Revision date: 11/23/2022 Version: 3.0

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

1.1. Product identifier

Product form	: Mixture
Trade name	: Ätzmittel CT alkoholische Salpetersäure 5%
Product code	: AetzM004/AetzM005/AetzM009

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

1.2.1. Relevant identified uses

Main use category Use of the substance/mixture : Professional use : Sample preparation for metallography

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cloeren Technology GmbH In Petersholz 44 DE-41844 Wegberg Germany T 02432/8902510 - F 02432/8902519 info@cloeren.de - www.cloeren.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Germany	Giftinformationszentrum-Nord der Länder Bremen, Hamburg, Niedersachsen und Schleswig-Holstein (GIZ-Nord) Universitätsmedizin Göttingen - Georg- August-Universität	Robert-Koch Straße 40 37075 Göttingen	+49 (0) 551 19240	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture		
Classification according to Regulation (EC) No. 1272/2008 [CL	2]	
Flammable liquids, Category 3	H226	
Skin corrosion/irritation, Category 1, Sub-Category 1A	H314	
Serious eye damage/eye irritation, Category 1	H318	

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Causes severe skin burns and eye damage. Causes serious eye damage.

2.2. Label elements

Labelling according to Regulation (EC) No. 12	72/2008 [CLP]	
Hazard pictograms (CLP)		$\mathbf{\wedge}$
		L.
		\sim
	GHS02	GHS05

Signal word (CLP) Hazard statements (CLP) : Danger

: H226 - Flammable liquid and vapour.

H314 - Causes severe skin burns and eye damage.

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Precautionary statements (CLP)	 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof ventilating, electrical, lighting equipment. 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. P405 - Store locked up. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
2.3. Other hazards	

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

Other information

: Hazardous components for labeling: 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	
nitric acid (7697-37-2)	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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments

: Mixture of the substances listed below with harmless additives

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethanol	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5 REACH-no: 2119457610-43	> 30	Flam. Liq. 2, H225 Eye Irrit. 2, H319
nitric acid	CAS-No.: 7697-37-2 EC-No.: 231-714-2 EC Index-No.: 007-004-00-1	≤5	Ox. Liq. 2, H272 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 general First-aid measures after inhalation First-aid measures after skin contact	 Call a physician immediately. Remove person to fresh air and keep comfortable for breathing. Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.

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First-aid measures after eye contact First-aid measures after ingestion	 Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. Rinse mouth. Do not induce vomiting. Call a physician immediately.
4.2. Most important symptoms and effect	ts, both acute and delayed
Symptoms/effects after skin contact Symptoms/effects after eye contact Symptoms/effects after ingestion	: Burns. : Serious damage to eyes. : Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
5.2. Special hazards arising from the subst	tance or mixture
Fire hazard Hazardous decomposition products in case of fire	: Flammable liquid and vapour. : Toxic fumes may be released.
5.3. Advice for firefighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures		
6.1. Personal precautions, protective equ	upment and emergency procedures	
6.1.1. For non-emergency personnel		
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.	
6.1.2. For emergency responders		
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".	
6.2. Environmental precautions		
Avoid release to the environment.		
6.3. Methods and material for containme	nt and cleaning up	
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.	
Other information	: Dispose of materials or solid residues at an authorized site.	
6.4. Reference to other sections		
For further information refer to section 13.		

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SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling Hygiene measures	 Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, includi	
Technical measures Storage conditions Storage area	 Ground/bond container and receiving equipment. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. storage class 8 A Combustible corrosive substances.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Ethanol (64-17-5)		
Germany - Occupational Exposure Limits (TRGS 900)		
Local name	Ethanol	
AGW (OEL TWA) [1]	380 mg/m³	
AGW (OEL TWA) [2]	200 ppm	
Peak exposure limitation factor	2(II)	
Remark	DFG;Y	
Regulatory reference	TRGS900	
nitric acid (7697-37-2)		
Germany - Occupational Exposure Limits (TRGS 900)		
Local name	Salpetersäure	
AGW (OEL TWA) [1]	2.6 mg/m ³	
AGW (OEL TWA) [2]	1 ppm	
Remark	EU;13;16	
Regulatory reference	TRGS900	

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection: Safety glasses

8.2.2.2. Skin protection

Skin and body protection: Wear suitable protective clothing

Hand protection:

The glove material must be impermeable and resistant to the product / the substance / the be preparation. Selection of the glove material taking into account the penetration times, permeation rates and the Degradation. Recommendation: uvex u-chem 3000 (DIN EN 374) Material: nitrile rubber Material thickness: 0.5 mm Value for the permeation:> 120 min (level 4) Recommendation: uvex u-fit strong N2000 (DIN EN 374) Material: nitrile rubber Material: nitrile rubber Material: nitrile rubber Material thickness: 0.2 mm Value for the permeation:> 30 min (level 2)

8.2.2.3. Respiratory protection

Respiratory protection: Ensure adequate ventilation or use a fume cupboard. No respiratory protection is required with normal use.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties	
9.1. Information on basic physica	l and chemical properties
Physical state	: Liquid
Colour	: Colourless.
Odour	: alcohol.
Odour threshold	: Not available
Melting point	: -114.5 °C Ethanol
Freezing point	: Not available
Boiling point	: > 78 °C Ethanol
Flammability	: Not applicable
Explosive properties	: Not self-igniting.
Explosive limits	: Not available

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Lower explosion limit	: 3.5 vol % Ethanol
Upper explosion limit	: 15 vol % Ethanol
Flash point	: > 12 °C Ethanol
Auto-ignition temperature	: 425 °C Ethanol
Decomposition temperature	: Not available
рН	: 2.2
Viscosity, kinematic	: Not available
Solubility	: Miscible with water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 0.823 g/cm ³
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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 Ethanol (64-17-5) LD50 oral rat LD50 oral 15010 mg/kg bodyweight LD50 oral 8300 mg/kg bodyweight

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nitric acid (7697-37-2)	
LC50 Inhalation - Rat (Vapours)	4.08 mg/l/4h
Skin corrosion/irritation :	Causes severe skin burns and eye damage. pH: 2.2
Ethanol (64-17-5)	
рН	≈7
nitric acid (7697-37-2)	
рН	<1
Serious eye damage/irritation :	Causes serious eye damage. pH: 2.2
Ethanol (64-17-5)	
рН	≈ 7
nitric acid (7697-37-2)	
pН	<1
Germ cell mutagenicity : Carcinogenicity : Reproductive toxicity : STOT-single exposure : STOT-repeated exposure : Ethanol (64-17-5) NOAEL (subchronic, oral, animal/male, 90 days)	Not classified Not classified Not classified Not classified Not classified Not classified Not classified Vot classified Vot classified Not classified
NOAEL (subchronic, oral, animal/female, 90 days)	> 9400 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
nitric acid (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)
Aspiration hazard :	Not classified
Ethanol (64-17-5)	
Viscosity, kinematic	1.506 mm ² /s
nitric acid (7697-37-2)	
Viscosity, kinematic	1.393 mm²/s
11.2. Information on other hazards	

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general Hazardous to the aquatic environment, short-term (acute) : Before neutralisation, the product may represent a danger to aquatic organisms.

: Not classified

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Hazardous to the aquatic environment, long-term : Not classified (chronic) Not rapidly degradable		
Ethanol (64-17-5)		
LC50 - Fish [1]	14.2 g/l Test organisms (species): Pimephales promelas	
NOEC (chronic)	9.6 mg/l Test organisms (species): Daphnia magna Duration: '9 d'	
nitric acid (7697-37-2)		
LC50 - Fish [1]	12.5 mg/l	
EC50 - Crustacea [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		
No additional information available		
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		
No additional information available		
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	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID				
ADR	IMDG	ΙΑΤΑ	ADN	RID
14.1. UN number or ID n	umber			
UN 2920	UN 2920	UN 2920	UN 2920	UN 2920
14.2. UN proper shipping name				
CORROSIVE LIQUID, FLAMMABLE, N.O.S.	CORROSIVE LIQUID, FLAMMABLE, N.O.S.	Corrosive liquid, flammable, n.o.s.	CORROSIVE LIQUID, FLAMMABLE, N.O.S.	CORROSIVE LIQUID, FLAMMABLE, N.O.S.
Transport document description				
UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (), 8 (3), II, (D/E)	UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S., 8 (3), II	UN 2920 Corrosive liquid, flammable, n.o.s., 8 (3), II	UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S., 8 (3), II	UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S., 8 (3), II

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ADR	IMDG	ΙΑΤΑ	ADN	RID
14.3. Transport hazard class(es)				
8 (3)	8 (3)	8 (3)	8 (3)	8 (3)
14.4. Packing group				
II	II	II	II	II
14.5. Environmental haz	ards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information	on available			
14.6. Special precaution	s for user			
Overland transport : CF1 Special provisions (ADR) : 274 Limited quantities (ADR) : 11 Excepted quantities (ADR) : E2 Packing instructions (ADR) : P001, IBC02 Mixed packing provisions (ADR) : MP15 Portable tank and bulk container instructions (ADR) : T11 Portable tank and bulk container special provisions : TP2, TP27 (ADR) : L4BN Vehicle for tank carriage : FL Transport category (ADR) : 2 Special provisions for carriage - Operation (ADR) : S2 Hazard identification number (Kemler No.) : 83 Orange plates : 83				
Tunnel restriction code (ADR): D/ETransport by sea:Special provisions (IMDG): 274Limited quantities (IMDG): 1 LExcepted quantities (IMDG): E2Packing instructions (IMDG): P001IBC packing instructions (IMDG): IBC02Tank instructions (IMDG): T11Tank special provisions (IMDG): TP2, TP27EmS-No. (Fire): F-EEmS-No. (Spillage): S-CStowage category (IMDG): SW1, SW2Properties and observations (IMDG): CAir transportAir transportPCA Excepted quantities (IATA): E2PCA Limited quantities (IATA): Y840PCA limited quantities (IATA): 0.5L				

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PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
ERG code (IATA)	: 8F
Inland waterway transport	
Classification code (ADN)	: CF1
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 1L
Excepted quantities (ADN)	: E2
Equipment required (ADN)	: PP, EP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1
Rail transport	
Classification code (RID)	: CF1
Special provisions (RID)	: 274
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T11
Portable tank and bulk container special provisions	: TP2, TP27
(RID)	
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: 83

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

15.1.1. 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 (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

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.

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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.

15.1.2. National regulations

Germany

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 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).
Storage class (LGK, TRGS 510)	: LGK 8A - Combustible corrosive substances.
Hazardous Incident Ordinance (12. BImSchV)	: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and act	ronyms:
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
РВТ	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

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Abbreviations and acronyms:	
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H272	May intensify fire; oxidiser.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
Ox. Liq. 2	Oxidising Liquids, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A

The classification complies with

: ATP 12

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.