

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Essigsäure 97,5 % ± 0,4 % (m/m)**

Revision: 17.03.2025

Product code: 34997

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Essigsäure 97,5 % ± 0,4 % (m/m)

UFI: 2NW3-E3K1-F00F-XC62

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

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

**1.3. Details of the supplier of the safety data sheet**

Company name:	AnalytiChem GmbH
	ACD
Street:	Stempelstraße 6
Place:	D-47167 Duisburg
Telephone:	0203/5194-0
E-mail:	info@analytichem.de
Contact person:	Abteilung Produktsicherheit
E-mail:	produktsicherheit@analytichem.de
Internet:	www.analytichem.de
Responsible Department:	Abteilung Produktsicherheit

Telefax: 0203/5194-290

Telephone: 0203/5194-107/117

**1.4. Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTRAC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**Further Information**

This product is a mixture. REACH Registration Number see section 3.

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Flam. Liq. 3; H226

Skin Corr. 1A; H314

Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

acetic acid

**Signal word:** Danger**Pictograms:**

according to Regulation (EC) No 1907/2006

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**Hazard statements**

H226 Flammable liquid and vapour.  
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.  
P260 Do not breathe mist/vapours/spray.  
P280 Wear protective gloves/protective clothing and eye protection/face protection.  
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.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
64-19-7	acetic acid			95 - < 100 %
	200-580-7	607-002-00-6	01-2119475328-30	
	Flam. Liq. 3, Skin Corr. 1A, Eye Dam. 1; H226 H314 H318			

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
64-19-7	200-580-7	acetic acid	95 - < 100 %
	oral: LD50 = 3310 mg/kg Skin Corr. 1A; H314: >= 90 - 100 Skin Corr. 1B; H314: >= 25 - < 90 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25		

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Self-protection of the first aider

**After inhalation**

Provide fresh air.

Call a physician immediately.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

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#### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

#### After ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting.

Do not allow a neutralisation agent to be drunk.

Call a physician immediately.

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

Irritant

corrosive

Dyspnoea

Gastrointestinal complaints

Vomiting

Circulatory collapse

Corneal opacity.

Risk of serious damage to eyes.

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

No data available

## SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

##### Unsuitable extinguishing media

no restriction

#### 5.2. Special hazards arising from the substance or mixture

Combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Carbon dioxide (CO<sub>2</sub>) Carbon monoxide

Acetic acid vapour

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Heating causes rise in pressure with risk of bursting.

#### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

## SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### General advice

Keep away from sources of ignition - No smoking.

This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot

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lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).

Take action to prevent static discharges.

#### For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

#### For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.

Danger of explosion

### 6.3. Methods and material for containment and cleaning up

#### For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

#### Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Keep container tightly closed.

Use personal protection equipment. Use extractor hood (laboratory).

Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation.

#### Advice on protection against fire and explosion

Take action to prevent static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

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**Further information on handling**

Take off immediately all contaminated clothing and wash it before reuse.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Store in a well-ventilated place. Keep container tightly closed.

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

**Hints on joint storage**

national regulations

**Further information on storage conditions**

Store in a dry place.

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
64-19-7	Acetic acid	10 20	25 50		TWA (8 h) STEL (15 min)	

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
64-19-7	acetic acid			
	Worker DNEL, long-term	inhalation	local	25 mg/m <sup>3</sup>
	Worker DNEL, acute	inhalation	local	25 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	local	25 mg/m <sup>3</sup>
	Consumer DNEL, acute	inhalation	local	25 mg/m <sup>3</sup>

**PNEC values**

CAS No	Substance	Environmental compartment	Value
64-19-7	acetic acid		
	Freshwater		3,058 mg/l
	Freshwater (intermittent releases)		30,58 mg/l
	Marine water		0,306 mg/l
	Freshwater sediment		11,36 mg/kg
	Marine sediment		1,136 mg/kg
	Micro-organisms in sewage treatment plants (STP)		85 mg/l
	Soil		0,47 mg/kg

**8.2. Exposure controls****Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection

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equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

goggles

Face protection umbrella

##### Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Trade name/designation KCL 897 Butoject®

Suitable material: Butyl caoutchouc (butyl rubber) 0,3 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation KCL 897 Butoject®

Suitable material: Butyl caoutchouc (butyl rubber) 0,3 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

##### Skin protection

Take off immediately all contaminated clothing and wash it before reuse.

Wear fire resistant or flame retardant clothing.

Wash hands and face before breaks and after work and take a shower if necessary.

Draw up and observe skin protection programme.

##### Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Filtering device (full mask or mouthpiece) with filter: E-(P2)

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

##### Thermal hazards

No data available

##### Environmental exposure controls

Do not allow to enter into surface water or drains.

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Danger of explosion

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	stinging
Odour threshold:	No data available
Melting point/freezing point:	17 °C

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Boiling point or initial boiling point and boiling range:	116-118 °C
Flammability:	No data available
Lower explosion limits:	4 vol. %
Upper explosion limits:	19,9 vol. %
Flash point:	39 °C
Auto-ignition temperature:	463 °C
Decomposition temperature:	No data available
pH-Value (at 20 °C):	acidic
Viscosity / kinematic:	1,17 mm <sup>2</sup> /s
(at 20 °C)	
Water solubility:	602,9 g/l
(at 25 °C)	
Solubility in other solvents	
No data available	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	16 hPa hPa
(at 20 °C)	
Vapour pressure:	No data available
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available

### 9.2. Other information

#### Information with regard to physical hazard classes

##### Explosive properties

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

##### Sustained combustibility:

Sustained combustibility

##### Self-ignition temperature

Solid: No data available

Gas: No data available

##### Oxidizing properties

No data available

#### Other safety characteristics

##### Evaporation rate:

No data available

##### Solvent separation test:

No data available

##### Solid content:

No data available

##### Sublimation point:

No data available

##### Softening point:

No data available

##### Pour point:

No data available

No data available

##### Viscosity / dynamic:

1,22 mPa·s

(at 20 °C)

##### Flow time:

No data available

#### Further Information

No data available

### SECTION 10: Stability and reactivity

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#### 10.1. Reactivity

In case of warming: Vapours may form explosive mixtures with air.

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

Oxidising agent

peroxides, for example hydrogen peroxide

permanganates, e.g. potassium permanganate

Oxidising agent, strong

Metal

iron and steel

Zinc

Alkali (lye)

aldehydes

Alcohols

Nitric acid

#### 10.4. Conditions to avoid

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

#### 10.5. Incompatible materials

Metal

#### 10.6. Hazardous decomposition products

SECTION 5: Firefighting measures

#### Further information

No data available

## SECTION 11: Toxicological information

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

##### **Acute toxicity**

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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

The substance has delayed effects.

##### **ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
64-19-7	acetic acid					
	oral	LD50 mg/kg	3310	Rat	J Ind Hyg Toxicol, Vol 23, PP 78-82 (194)	The sodium salt of acetic acid was admin

##### **Irritation and corrosivity**

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

##### **Sensitising effects**

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

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

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Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

#### STOT-single exposure

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

#### STOT-repeated exposure

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

#### Aspiration hazard

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

#### Information on likely routes of exposure

No data available

#### Specific effects in experiment on an animal

No data available

#### Additional information on tests

No data available

#### Practical experience

No data available

### 11.2. Information on other hazards

#### Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### Other information

Irritant

corrosive

Dyspnoea

Gastrointestinal complaints

Vomiting

Circulatory collapse

Corneal opacity.

Risk of serious damage to eyes.

#### Further information

Damage to: kidneys

### **SECTION 12: Ecological information**

#### 12.1. Toxicity

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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
64-19-7	acetic acid					
	Acute fish toxicity	LC50 mg/l	> 1000	96 h Oncorhynchus mykiss	Study report (2005)	other: SOP E257
	Acute algae toxicity	ErC50 mg/l	> 1000	72 h Skeletonema costatum	Study report (2005)	ISO 10253
	Acute crustacea toxicity	EC50 mg/l	> 1000	48 h Daphnia magna	Study report (1990)	OECD Guideline 202

#### 12.2. Persistence and degradability

99 %; 30 d

Readily biodegradable (according to OECD criteria).

according to Regulation (EC) No 1907/2006

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**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
64-19-7	acetic acid	-0,17

**BCF**

CAS No	Chemical name	BCF	Species	Source
64-19-7	acetic acid	3,16	fish	Environ. Toxicol. Ch

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

Do not allow to enter into surface water or drains.

Avoid release to the environment.

Harmful effect due to pH shift.

**Further information**

No data available

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 2789
<b>14.2. UN proper shipping name:</b>	ACETIC ACID SOLUTION
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8+3
Classification code:	CF1
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	83
Tunnel restriction code:	D/E

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID number:</b>	UN 2789
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**14.2. UN proper shipping name:** ACETIC ACID SOLUTION

**14.3. Transport hazard class(es):** 8

**14.4. Packing group:** II

Hazard label: 8+3

Classification code: CF1

Limited quantity: 1 L

Excepted quantity: E2

#### Marine transport (IMDG)

**14.1. UN number or ID number:** UN 2789

**14.2. UN proper shipping name:** ACETIC ACID SOLUTION

**14.3. Transport hazard class(es):** 8

**14.4. Packing group:** II

Hazard label: 8+3

Special Provisions: -

Limited quantity: 1 L

Excepted quantity: E2

EmS: F-E, S-C

Segregation group: 1 - acids

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** UN 2789

**14.2. UN proper shipping name:** ACETIC ACID SOLUTION

**14.3. Transport hazard class(es):** 8

**14.4. Packing group:** II

Hazard label: 8+3

Limited quantity Passenger: 0.5 L

Passenger LQ: Y840

Excepted quantity: E2

IATA-packing instructions - Passenger: 851

IATA-max. quantity - Passenger: 1 L

IATA-packing instructions - Cargo: 855

IATA-max. quantity - Cargo: 30 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

## SECTION 15: Regulatory information

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

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

## SECTION 16: Other information

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#### Abbreviations and acronyms

Flam. Liq. 3: Flammable liquids, hazard category 3

Skin Corr. 1A: Skin corrosion, sub-category 1A

Eye Dam. 1: Serious eye damage, hazard category 1

#### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Skin Corr. 1A; H314	Calculation method
Eye Dam. 1; H318	Calculation method

#### Relevant H and EUH statements (number and full text)

H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

#### Further Information

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*