

Hydrobromic acid 0.1 mol / I - 0.1 M solution in acetic acid 100 %

Revision date: 11.12.2023

Product code: 13029

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

1.1. Product identifier

Hydrobromic acid 0.1 mol / I - 0.1 M solution in acetic acid 100 %

UFI:

RM25-M1Q7-X00U-CXUS

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

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

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	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
E-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
E-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	
1.4. Emergency telephone	For Hazardous Materials [or Danger	ous Goods] Incidents Spill, Leak, Fire,
number:	•	REC Day or Night Within USA and Canada: anada: +1 703-741-5970 (collect calls

Further Information

No data available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Met. Corr. 1; H290 Flam. Liq. 3; H226 Skin Corr. 1A; H314 Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

Danger

2.2. Label elements

GB CLP Regulation

Hazard components for labelling acetic acid

Signal word:

Pictograms:





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Hazard statements

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
Precautionary statemer	nts
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing 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	Chemical name					
	EC No Index No REACH No						
	Classification (GB CLP Regulation)						
64-19-7	acetic acid						
	200-580-7 607-002-00-6 01-2119475328-30						
	Flam. Liq. 3, Skin Corr. 1A; H226 H314						

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

Specific Co	onc. Limits, M-fa	ctors and ATE				
CAS No	EC No Chemical name					
	Specific Conc. Limits, M-factors and ATE					
64-19-7	200-580-7	acetic acid	95 - < 100 %			
		50 = 11,4 mg/l (vapours); oral: LD50 = 3310 mg/kg Skin Corr. 1A; H314: >= 90 - rr. 1B; H314: >= 25 - < 90 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >=				

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 (CO2) Carbon monoxide Acetic acid vapour Hydrogen bromide (HBr) 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.

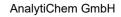
SECTION 6: Accidental release measures

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 lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators,





an analyti**chem** brand

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according to UK REACH Regulation

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and pagers which have not been certified as intrinsically safe). Take action to prevent static discharges. Corrosive to metals.

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.

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.



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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. Store in a dry place.

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

storage temperature +15°C - +25°C Corrosive to metals.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
64-19-7	Acetic acid	10	25		TWA (8 h)	WEL
		20	50		STEL (15 min)	WEL

DNEL/DMEL values

Substance							
	Exposure route	Effect	Value				
acetic acid							
long-term	inhalation	local	25 mg/m³				
acute	inhalation	local	25 mg/m³				
Consumer DNEL, long-term		local	25 mg/m³				
Consumer DNEL, acute		local	25 mg/m³				
	acetic acid ong-term acute :L, long-term	Exposure route acetic acid ong-term acute inhalation iL, long-term	Exposure route Effect acetic acid inhalation local ong-term inhalation local acute inhalation local iL, long-term inhalation local				

PNEC values

CAS No	Substance					
Environmen	Environmental compartment Value					
64-19-7	acetic acid					
Freshwater 3,058 mg/l						
Freshwater (intermittent releases) 30,58 mg/l						
Marine wate	0,306 mg/l					
Freshwater	11,36 mg/kg					
Marine sedir	nent	1,136 mg/kg				
Micro-organ	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 equipment.

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



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Individual protection measures, such as personal protective equipment

Eye/face protection

goggles Face protection umbrella

Hand protection

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: vertrieb@kcl.de with the following specification (test according to EN 374):

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 890 Vitoject® Suitable material: FKM (fluoro rubber) 0,7 mm Wearing time with occasional contact (splashes): > 60 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).

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.

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: Colour: Odour:	Liquid colourless stinging	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and		>35 °C
boiling range:		
Flammability:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		>23 °C
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available
pH-Value:		0
Viscosity / kinematic:		No data available



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Water solubility:	No data available	
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:	No data available	
Vapour pressure:	No data available	
Density:	1,0592 g/cm ³	
Relative density:	No data available	
Bulk density:	No data available	
Relative vapour density:	No data available	
Particle characteristics:	No data available	
9.2. Other information		
Information with regard to physical hazard classes	5	
Explosive properties		
Vapours are heavier than air, spread along floors	-	
Sustaining combustion:	Sustaining combustion	
Self-ignition temperature	Nie dete en Stelete	
Solid: Gas:	No data available No data available	
	No dala avaliable	
Oxidizing properties No data available		
Other safety characteristics		
Evaporation rate:	No data available	
Solvent separation test:	No data available	
Solvent content:	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:	No data available	
Flow time:	No data available	
Further Information		
No data available		
SECTION 10: Stability and reactivity		
<u>10.1. Reactivity</u> In case of warming: Vapours may form explosive <u>10.2. Chemical stability</u>	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)



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aldehydes Alcohols Nitric acid

10.4. Conditions to avoid

storage temperature < 17 °C

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 GB CLP Regulation

Toxicocinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

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).

Symptoms may be delayed.

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								
		LD50 mg/kg	3310		- ,,	The sodium salt of acetic acid was admin			
	inhalation (4 h) vapour	LC50	11,4 mg/l	Rat	Study report (1980)	OECD Guideline 403			

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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. Observe risk of aspiration if vomiting occurs.

Information on likely routes of exposure

There are no data available on the preparation/mixture itself.

Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.



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Additional information on tests

There are no data available on the preparation/mixture itself.

Practical experience

There are no data available on the preparation/mixture itself.

11.2. Information on other hazards

Endocrine disrupting properties

There are no data available on the preparation/mixture itself.

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

There are no data available on the mixture itself.

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		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

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

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

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH. There are no data available on the mixture itself.

12.6. Endocrine disrupting properties



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This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria. There are no data available on the mixture itself.

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

There are no data available on the mixture itself.

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. Do not empty into drains.

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)	
14.1. UN number or ID number:	UN 2920
14.2. UN proper shipping name:	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (acetic acid, hydrogen
	bromide)
14.3. Transport hazard class(es):	8
14.4. Packing group:	I
Hazard label:	8+3
Classification code:	CF1
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	83
Tunnel restriction code:	D/E
Inland waterways transport (ADN)	
14.1. UN number or ID number:	UN 2920
14.2. UN proper shipping name:	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (acetic acid, hydrogen
	bromide)
14.3. Transport hazard class(es):	8
14.4. Packing group:	I
Hazard label:	8+3
Classification code:	CF1
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Marine transport (IMDG)	
14.1. UN number or ID number:	UN 2920
14.2. UN proper shipping name:	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (acetic acid, hydrogen
	bromide)
14.3. Transport hazard class(es):	8



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14.4. Packing group:	11			
Hazard label:	8+3			
Special Provisions:	274			
Limited quantity:	1 L			
Excepted quantity:	E2			
EmS:	F-E, S-C			
Air transport (ICAO-TI/IATA-DGR)				
14.1. UN number or ID number:	UN 2920			
14.2. UN proper shipping name:	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (acetic acid, hydrogen			
	bromide)			
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 regul	ations/legislation specific for the substance or mixture			
EU regulatory information				
Restrictions on use (REACH, annex XVII):				
Entry 3, Entry 40				
National regulatory information				
Employment restrictions:	Observe restrictions to employment for juveniles according to the 'juve	niie		
Water bezord class (D):	work protection guideline' (94/33/EC).			
Water hazard class (D):	1 - slightly hazardous to water			
SECTION 16: Other information				

Changes

This data sheet contains changes from the previous version in section(s): 1,9.

Abbreviations and acronyms

Met. Corr: Corrosive to metals Flam. Liq: Flammable liquids Skin Corr: Skin corrosion Eye Dam: Eye damage

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
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.



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H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eve damage.

Further Information

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.)