

**Perchloric acid 1 mol/l - 1 N solution in anhydrous acetic acid**

Revision date: 27.10.2021

Product code: 05380

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

**1.1. Product identifier**

Perchloric acid 1 mol/l - 1 N solution in anhydrous acetic acid

**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:	Fa. Bernd Kraft GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
e-mail:	info@berndkraft.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
e-mail:	produktsicherheit@berndkraft.de	
Internet:	www.berndkraft.de	
Responsible Department:	Abteilung Produktsicherheit	

**1.4. Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC 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**

Met. Corr. 1; H290

Flam. Liq. 3; H226

Acute Tox. 2; H330

Skin Corr. 1B; H314

Eye Dam. 1; H318

STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**

**Regulation (EC) No 1272/2008**

**Hazard components for labelling**

acetic acid

acetic anhydride

perchloric acid

**Signal word:** Danger

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

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**Pictograms:**



**Hazard statements**

- H226 Flammable liquid and vapour.
- H290 May be corrosive to metals.
- H314 Causes severe skin burns and eye damage.
- H330 Fatal if inhaled.
- H335 May cause respiratory irritation.

**Precautionary statements**

- 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**

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
64-19-7	acetic acid			55 - < 60 %
	200-580-7	607-002-00-6	01-2119475328-30	
	Flam. Liq. 3, Skin Corr. 1A; H226 H314			
108-24-7	acetic anhydride			25 - < 30 %
	203-564-8	607-008-00-9	01-2119486470-36	
	Flam. Liq. 3, Acute Tox. 2, Acute Tox. 4, Skin Corr. 1B, STOT SE 3; H226 H330 H302 H314 H335			
7601-90-3	perchloric acid			10 - < 15 %
	231-512-4	017-006-00-4		
	Flam. Liq. 3, Ox. Liq. 1, Skin Corr. 1A; H226 H271 H314			

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

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**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	55 - < 60 %
		inhalation: LC50 = 11,4 mg/l (vapours); 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	
108-24-7	203-564-8	acetic anhydride	25 - < 30 %
		inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); oral: LD50 = 630 mg/kg Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 5 - < 25 Eye Dam. 1; H318: >= 5 - < 25 Eye Irrit. 2; H319: >= 1 - < 5 STOT SE 3; H335: >= 5 - 100	
7601-90-3	231-512-4	perchloric acid	10 - < 15 %
		oral: LD50 = 200 - 2000 mg/kg Ox. Liq. 1; H271: >= 50 - 100 Ox. Liq. 2; H272: >= 0 - < 50 Skin Corr. 1A; H314: >= 50 - 100 Skin Corr. 1B; H314: >= 10 - < 50 Skin Irrit. 2; H315: >= 1 - < 10 Eye Irrit. 2; H319: >= 1 - < 10	

**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.

**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 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**

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**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

Hydrogen chloride (HCl)

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, 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

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.

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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.

**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.

**Further information on storage conditions**

storage temperature +15°C - +25°C

**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	25		TWA (8 h)	
		20	50		STEL (15 min)	
108-24-7	Acetic anhydride	1	2.5		TWA (8 h)	
		2	10		STEL (15 min)	

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**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>
108-24-7	acetic anhydride			
Worker DNEL, long-term		inhalation	systemic	4,2 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	4,2 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	12,6 mg/m <sup>3</sup>
7601-90-3	perchloric acid			
Consumer DNEL, long-term		oral	systemic	0,0167 mg/kg bw/day

**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
108-24-7	acetic anhydride		
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)			115 mg/l
Soil			0,47 mg/kg
7601-90-3	perchloric acid		
Freshwater			0,021 mg/l
Freshwater (intermittent releases)			147 mg/l
Marine water			0,002 mg/l
Freshwater sediment			4,67 mg/kg
Marine sediment			0,467 mg/kg
Micro-organisms in sewage treatment plants (STP)			8,2 mg/l
Soil			0,021 mg/kg

**8.2. Exposure controls**

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**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.

**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.

**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

**Changes in the physical state**

Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Sublimation point:	No data available
Softening point:	No data available

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Pour point: No data available  
: No data available  
Flash point: 40 °C

**Flammability**

Solid/liquid: No data available  
Gas: No data available

**Explosive properties**

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

Lower explosion limits: No data available  
Upper explosion limits: No data available  
Auto-ignition temperature: No data available

**Self-ignition temperature**

Solid: No data available  
Gas: No data available

Decomposition temperature: No data available

pH-Value: acidic

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Flow time: No data available

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: 1,12875 g/cm<sup>3</sup>

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**

Sustaining combustion: Sustaining combustion

Oxidizing properties

No data available

**Other safety characteristics**

Solvent separation test: No data available

Solvent content: No data available

Solid content: No data available

Evaporation rate: 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**

**Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

Fatal if inhaled.

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

**ATEmix calculated**

ATE (inhalation vapour) 1,74 mg/l; ATE (inhalation dust/mist) 0,174 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-19-7	acetic acid				
	oral	LD50 3310 mg/kg	Rat	J Ind Hyg Toxicol, Vol 23, PP 78-82 (194)	The sodium salt of acetic acid was admin
	inhalation (4 h) vapour	LC50 11,4 mg/l	Rat	Study report (1980)	OECD Guideline 403
108-24-7	acetic anhydride				
	oral	LD50 630 mg/kg	Rat	Study report (1980)	5 animals per gender per group Starved f
	inhalation vapour	ATE 0,5 mg/l			
	inhalation dust/mist	ATE 0,05 mg/l			
7601-90-3	perchloric acid				
	oral	LD50 200 - 2000 mg/kg	Rat	Study report (2003)	OECD Guideline 423

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**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**

May cause respiratory irritation. (acetic anhydride)

**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 mixture itself.

**Specific effects in experiment on an animal**

There are no data available on the mixture itself.

**Additional information on tests**

There are no data available on the mixture itself.

**Practical experience**

There are no data available on the mixture itself.

**11.2. Information on other hazards**

**Endocrine disrupting properties**

There are no data available on the mixture itself.

**Other information**

Irritant  
corrosive  
Dyspnoea  
Gastrointestinal complaints  
Vomiting  
Circulatory collapse  
Corneal opacity.  
Risk of serious damage to eyes.

**Further information**

kidneys

**SECTION 12: Ecological information**

**12.1. Toxicity**

There are no data available on the mixture itself.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
64-19-7	acetic acid					
	Acute fish toxicity	LC50 > 1000 mg/l	96 h	Oncorhynchus mykiss	Study report (2005)	other: SOP E257
	Acute algae toxicity	ErC50 > 1000 mg/l	72 h	Skeletonema costatum	Study report (2005)	ISO 10253
	Acute crustacea toxicity	EC50 > 1000 mg/l	48 h	Daphnia magna	Study report (1990)	OECD Guideline 202
108-24-7	acetic anhydride					
	Acute fish toxicity	LC50 > 1000 mg/l	96 h	Oncorhynchus mykiss	Study report (2005)	other: SOP E257
	Acute algae toxicity	ErC50 > 1000 mg/l	72 h	Skeletonema costatum	Study report (2005)	ISO 10253
	Acute crustacea toxicity	EC50 > 1000 mg/l	48 h	Daphnia magna	Study report (1990)	OECD Guideline 202
7601-90-3	perchloric acid					
	Acute fish toxicity	LC50 1470 mg/l	96 h	Lepomis macrochirus	Publication (2004)	EPA OPPTS 850.1075
	Acute algae toxicity	ErC50 > 435,7 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1998)	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h	Daphnia magna	Study report (2004)	OECD Guideline 202
	Acute bacteria toxicity	(EC50 > 1000 mg/l)	0,5 h	Activated sludge	Study report (1997)	ISO 8192

**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
108-24-7	acetic anhydride	-0,577

**BCF**

CAS No	Chemical name	BCF	Species	Source
64-19-7	acetic acid	3,16	fish	Environ. Toxicol. Ch
108-24-7	acetic anhydride	3,16	fish	Environ. Toxicol. Ch
7601-90-3	perchloric acid	> 0,12 - < 0,14	Danio rerio	Chemosphere 65 (2006)

**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 REACH, annex XIII.

There are no data available on the mixture itself.

**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.

There are no data available on the mixture itself.

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**12.7. Other adverse effects**

Do not allow to enter into surface water or drains.  
Avoid release to the environment.

**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)**

<b>14.1. UN number or ID number:</b>	UN 2920
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (acetic acid, perchloric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
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)**

<b>14.1. UN number or ID number:</b>	UN 2920
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (acetic acid, perchloric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8+3
Classification code:	CF1
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 2920
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (acetic acid, perchloric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8+3
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-C

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

<b>14.1. UN number or ID number:</b>	UN 2920
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (acetic acid, perchloric acid)
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	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

Information according to 2012/18/EU (SEVESO III): H2 ACUTE TOXIC

Additional information: P5c

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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): 1,9,11,12,13.

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

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Flam. Liq. 3; H226	On basis of test data
Acute Tox. 2; H330	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
STOT SE 3; H335	Calculation method

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

H226	Flammable liquid and vapour.
H271	May cause fire or explosion; strong oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Perchloric acid 1 mol/l - 1 N solution in anhydrous acetic acid

Revision date: 27.10.2021

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H330 Fatal if inhaled.  
H335 May cause respiratory irritation.

#### 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.

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