

SAFETY DATA SHEET

1. Identification of the substance / preparation and company.

1.1 Product identifier

Product Nr. CL05.1602
Trade name Perchloric acid 0.1 mol/l in Acetic acid 100%
REACH Registration Number A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

Identified uses: Reagent for analysis
In compliance with the conditions described in the annex to this safety data sheet.

1.3 Information provided by AnalytiChem Belgium NV product service.

Responsible department: AnalytiChem Belgium NV
Industriezone "De Arend" 2
B-8210 Zedelgem
BELGIUM
Tel. +32 50 28 83 20 e-mail: info.be@analytichem.com

1.4 Emergency telephone: 00 (32) 50.28.83.20

2. Hazard identification

2.1 Classification of the substance or the mixture (EG 1272/2008)

Substance or mixture corrosive to metals, Categorie 1, H290
Flammable liquid, Categorie 3, H226
Skin corrosion/irritation, Categorie 1A, H314
Eye damage, Categorie 1, H318
Specific target organ toxicity - single exposure, Categorie 3, H335

For the full text of H-sentences mentioned in this Section, see Section 16

For the full text of R-sentences mentioned in this Section, see Section 16

2.2 GHS-Labeling

GHS-Labeling Labelling (REGULATION (EC) No 1272/2008) (EG 1272/2008)
Hazard pictograms:



Signal word:

Danger :

Hazard statements:

H290 May be corrosive to metals.
H226 Flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
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.
P303 + P361 + P353 IF ON SKIN (or hair): Remove, Take off immediately all contaminated clothing. Rinse skin with water, 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 or doctor/physician.

Reduced labelling

Hazard pictograms:



Signal word:

Danger :

3. Composition / Information on ingredients.

3.1 Substance

Not applicable

3.2 Mixture

Hazardous Ingredients:

Name according to EC directives:

Component	Cas-No.	Concentration	Classification (REGULATION (EC) No 1272/2008)
Perchloric acid 70% a.r.	7601-90-3	≥0,5%-<2%	Ox. Liq. 1 (H271) Met. Corr. 1 (H290) Acute Tox. (oral) 4 (H302) Skin Corr. 1A (H314) STOT RE 2 (H373)
Acetic acid glacial 99-100% a.r.	64-19-7	≥90%	Flam. Liq. 3 (H226) Skin Corr. 1A (H314)
Acetic anhydride a.r.	108-24-7	≥0,5%-<2%	Flam. Liq. 3 (H226) Acute Tox. (inhal.) 2 (H330) Acute Tox. (oral) 4 (H302) Skin Corr. (H314)

Component	Reach Number
Perchloric acid 70% a.r.	01-2119978750-27
Acetic anhydride a.r.	01-2119486470-36

4. First aid measures.

4.1 Description of first aid measures

General advice

First-aid personnel: ensure self-protection!

After inhalation: Remove to fresh air, seek medical advice.

After contact with skin: Wash off with plenty of water. Dab with polyethylene glycol 400. Remove contaminated clothing. Immediately call in physician.

After contact with eyes: Rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately call an ophthalmologist.

After ingestion: Never give anything by mouth to an unconscious person. Make victim drink water (two glasses at most), avoid vomiting (risk of perforation!). Immediately call in physician. Do not attempt to neutralize.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Fire fighting measures.

5.1 Extinguishing media

Suitable extinguishing media

Use dry chemical or carbon dioxide.

Unsuitable extinguishing media

Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

5.2 Special hazards arising from substance or mixture

Combustible. Vapours heavier than air. Forms explosive mixtures with air at ambient temperatures. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

5.4 Further information

No data available

6. Accidental release measures.

6.1 Personal precautions, protective equipment and emergency procedures

Do not inhale vapours/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms. For personal protection see section 8.

6.2 Environmental precautions

Do not allow to enter sewerage system; risk of explosion!

6.3 Methods and materials for containment and cleaning up

Absorb on vermiculite, sand or a pillow from Chemical Spill Center.

6.4 Reference to other sections

7. Handling and storage.

7.1 Precautions for safe handling

Keep away from sources of ignition. Take measures to prevent electrostatic charging. Work under hood. Do not inhale substance. Avoid generation of vapours/aerosols.
For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities

Closed in a well ventilated place.
Recommended storage temperature see product label.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure controls - Personal protection.

8.1 Control parameters

8.2 Exposure controls

Engineering measures

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

See section 7.1

Individual protection measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance. Under no circumstances eat or drink at workplace. Work under hood . Do not inhale substance.

Respiratory protections

Required when vapours/aerosols are generated.

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.

Eye protection

Required.

Hand protection

Required.

Body protection

Required.

Environmental exposure controls

Do not allow to enter sewerage system; risk of explosion!

9. Physical and chemical properties.

9.1 Information on basic physical

Appearance

Form:	Liquid
Colour:	Colourless
Odour:	acetic acid

Changes in physical state

Melting Point:	17°C
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Boiling point: 118°C
Flash point: 40°C
Self Ignation temperature: 485°C
Mol. Weight: -
Density: 1,05 g/ml
pH value: pH < 2
Solubility in water: soluble
Explosion limits:

9.2 Other data

No further relevant information available.

10. Stability and reactivity.

10.1 Reactivity

See section 10.3

10.2 Chemical stability

No further relevant information available.

10.3 Possibility of hazardous reactions

Reacts violently with water and alkalis. Explosible with air in a vaporous/gaseous state when heated.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

No further relevant information available.

11. Toxicological information.

11.1 Information on toxicological effects

Acute oral toxicity
LD50 orl. rat 1060 mg/kg

Acute inhalation toxicity
No further relevant information available.

Acute dermal toxicity
No further relevant information available.

Skin irritation
No further relevant information available.

Eye irritation
No further relevant information available.

Sensitisation
No further relevant information available.

Germ cell mutagenicity
No further relevant information available.

Carcinogenicity
No further relevant information available.

Reproductive toxicity
No further relevant information available.

Teratogenicity
No further relevant information available.

Specific target organ toxicity - single exposure
No further relevant information available.

Specific target organ toxicity - repeated exposure
No further relevant information available.

Aspiration hazard
No further relevant information available.

11.2 Further information

No further relevant information available.

Further data:

Handle in accordance with good industrial hygiene and safety practice..

12. Ecological information.

12.1 Toxicity

No further relevant information available.

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

No further relevant information available.

12.6 Other adverse effects

Do not allow to enter waters, waste water, or soil!

13. Disposal considerations.

Product: Chemicals must be disposed of in compliance with the respective national regulations. Packaging: Chem-lab product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system.

14. Transport information.

Land Transport (ADR/RID)

14.1 UN number	UN 2789
14.2 Proper shipping name	Acetic acid, glacial
14.3 Class	8 (3)
14.4 Packing group	II
14.5 Environmentally hazardous	-
14.6 Special precautions for user	no
Tunnel restriction code	(D/E)

Inland waterway transport (ADN)

Not relevant

Air Transport (IATA)

14.1 UN number	UN 2789
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14.2 Proper shipping name	Acetic acid, glacial
14.3 Class	8 (3)
14.4 Packing group	II
14.5 Environmentally hazardous	-
14.6 Special precautions for user	no

Sea Transport (IMDG)

14.1 UN number	UN 2789
14.2 Proper shipping name	Acetic acid, glacial
14.3 Class	8 (3)
14.4 Packing group	II
14.5 Environmentally hazardous	-
14.6 Special precautions for user	no

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

15. Regulatory information.

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

For this product an assessment was not carried out.

15.2 Chemical Safety Assessment

For this product an assessment was not carried out.

16. Other information.

The information and recommendations in this MSDS are to the best of our knowledge, information and belief accurate at the date of publications. Although utmost care has been taken in the composition of this text, the publisher cannot be held responsible for any damage resulting from any possible error in this publications.

Full text of H-Statements referred to under sections 2 and 3.

- 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.
- H330 Fatal if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.