
1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Perchloric Acid
Synonyms	PCA
Grade	ACS, HPLC, Anapremium, Dehydrous, LCMS, UPLC, Trace metal, Trace metal Plus
Company	Anaqua Chemicals Supply 1510 Eldridge Parkway, Suite 110-268 Houston, TX 77077, USA
Telephone	(281) 668-0032
Fax	(281) 668-0033

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Formula	HClO ₄
CAS-No.	7601-90-3
Index-No.	017-006-00-4
Ec-No.	231-512-4

3. HAZARDS IDENTIFICATION**GHS Classification**

Oxidizing liquids	Category 1
Skin corrosion	Category 1A

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Contact with combustible material may cause fire. Causes severe burns.

4. FIRST AID MEASURES**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation	If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Rinse mouth with water. Consult a physician immediately.
Skin Contact	Immediately wash off with plenty of water for at least 15 minutes. Consult a physician.
Eye Contact	Rinse through with plenty of water for at least 15 minutes. Consult a physician.
Note to Physician	Treat symptomatically

Most important symptoms and effects, both acute and delayed

Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Special hazards	Chlorine, hydrogen chloride gas
Special protective equipment for fire-fighters	Wear self contained breathing apparatus for fighting if necessary. Use water spray to cool unopened containers

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains
Methods for cleaning up	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulation

7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition.
Storage	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Occupational exposure controls

Engineering Measures	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.
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Personal protective Equipment

Respiratory protection	Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup
Hand protection	Wear appropriate protective gloves.
Eye protection	Tightly fitting safety glasses.
Skin and body protection	Complete suit protecting against chemicals. Protective clothes should be selected specifically for work place according to concentration and quantity of chemical handled.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands and face before breaks and at the end of working day.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Colourless
pH	No data available
Oxidizing properties	No data available
Melting point	-18 °C
Boiling point	203 °C
Flash point	113 °C - closed cup
Lower explosion limit	No data available
Upper explosion limit	No data available
Density	1,664 g/cm ³ at 25 °C
Vapour pressure	9.1 hPa at 25 °C
Water solubility	No data available

10. STABILITY AND REACTIVITY

Storage stability	No information available
Conditions to avoid	No information available
Materials to avoid	Strong bases, strong acids, amines, phosphorus halides, Alcohols, organic materials, powdered metals, strong reducing agents
Hazardous decomposition products	No information available

11. TOXICOLOGICAL INFORMATION

Acute toxicity	No information available
Skin irritation	No information available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Potential health effects	Inhalation May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion Harmful if swallowed. Causes burns. Skin May be harmful if absorbed through skin. Causes skin burns. Eyes Causes eye burns. tal if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Symptoms of Exposure	Burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.
Additional Information	RTECS: Not available

12. ECOLOGICAL INFORMATION

Persistence and degradability	No information available
Ecotoxicity	No information available
Toxicity to fish	No information available
Bioaccumulative potential	No information available
Other adverse effects	No information available

13. DISPOSAL CONSIDERATIONS

Product	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company
Packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

IATA

UN-Number: 1873 Class: 5.1 (8) Packing group: I
Proper shipping name: Perchloric acid

IMDG

UN-Number: 1873 Class: 5.1 (8) Packing group: I
Proper shipping name: Perchloric acid

DOT (US)

UN-Number: 1873 Class: 5.1 (8) Packing group: I
Proper shipping name: Perchloric acid
Marine pollution: No

15. REGULATORY INFORMATION

Hazard statements

H271: May cause fire or explosion; strong oxidizer.

H314: Causes severe skin burns and eye damage.

Precautionary statements

P220: Keep/Store away from clothing/ combustible materials.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

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.

GHS-Labeling

Pictogram



Signal word *Danger*

R-phrases: 5-8-35

Heating may cause an explosion. Contact with combustible material may cause fire. Causes severe burns.

S-phrases: 23-26-36-45

Do not breathe gas/fumes/vapour/spray. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. In case of accident or if you feel unwell, seek medical advice immediately

16. OTHER INFORMATION

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