

FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

Material Safety Data Sheet (MSDS)

MSDS #: 582.00

Revision Date: March 14, 2001

Section 1 — Chemical Product and Company Identification

Perchloric Acid

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

Section 2 — Composition, Information on Ingredients

Perchloric Acid, 70%

CAS#: 7601-90-3

Section 3 — Hazards Identification

Colorless, fuming liquid. Strong chlorine odor.
Severely toxic by inhalation and ingestion. Poison. Severe corrosive to all body tissues.
Although 68-72% cold perchloric acid behaves as a strong but nonoxidizing acid, it becomes an extreme oxidant and powerful dehydrator at elevated temperatures or when anhydrous.
Dangerous fire risk.

FLINN AT-A-GLANCE

Health-3
Flammability-0
Reactivity-3
Exposure-3
Storage-3

0 is low hazard, 3 is high hazard

Section 4 — First Aid Measures

Call a physician, seek medical attention for further treatment, observation and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Give 1 to 2 cups of water or milk, followed by a gastric antacid, such as milk of magnesia. Do not induce vomiting. Call a physician or poison control at once.

Section 5 — Fire Fighting Measures

Non flammable liquid.

Flash Point: 230 F Strong oxidizer when heated or anhydrous: will ignite vigorously in contact with organic materials. Fire and explosion risk. When heated to decomposition, emits toxic fumes of Cl.

Fire Fighting Instructions: Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

H-3
F-0
R-3
OX

Section 6 — Accidental Release Measures

Restrict unprotected personnel from area. Remove all ignition sources and ventilate area. Contain spill with sand and absorbent material, neutralize with sodium bicarbonate or calcium hydroxide and deposit in sealed bag or container. See Sections 8 and 13 for further information.

Section 7 — Handling and Storage

Flinn Suggested Chemical Storage Pattern: Inorganic #6. Store with bromates and chlorates.

Store in a dedicated acid cabinet and away from any source of water; if an acid cabinet is not available, store in Flinn Saf-Cube.

Store in a cool dry place. Use and dispense in a hood.

Section 8 — Exposure Controls, Personal Protection

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron. Use exhaust ventilation to keep airborne concentrations low.

Section 9 — Physical and Chemical Properties

Colorless, fuming liquid.
Solubility: Soluble in water.
Formula: HClO₄
Formula Weight: 100.46

Specific Gravity: 1.764
Melting Point: -112 C

Section 10 — Stability and Reactivity

Avoid contact with strong bases, strong acids, amines, phosphorus halides, acid anhydrides alcohols, water, and organic materials. Reacts vigorously with water with evolution of heat; ignites vigorously in contact with organic materials. Fire and explosion risk. Shelf life: Indefinite.

Section 11 — Toxicological Information

Acute effects: Poison, corrosive
Chronic effects: N.A.
Target organs: N.A.

ORL-RAT LD50: 1100 mg/kg
IHL-RAT LC50: N.A.
SKN-RBT LD50: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

Section 12 — Ecological Information

Data not yet available.

Section 13 — Disposal Considerations

Please consult with state and local regulations.
Flinn Suggested Disposal Method #12a is one option.

Section 14 — Transport Information

Shipping Name: Perchloric acid
Hazard Class: 5.1, Oxidizer, corrosive
UN Number: UN1873

N/A = Not applicable

Section 15 — Regulatory Information

TSCA-listed, EINECS-listed (231-512-4), RCRA code D001, D002, D003.

Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

FLINN SCIENTIFIC INC.

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*Reduce Science Accidents--
Use Flinn Chemicals*

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