

Chemical Safety Data Sheet

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1. Identification of the substance/mixture and of the company/undertaking

Product name: HYDROCHLORIC ACID, COMMERCIAL

Product code: 10000485

Manufacturer: Carestream Health, Inc., 150 Verona Street, Rochester, New York 14608; Rayco (Shanghai) Medical Products Company Limited; Building 7, No.1510 Chuanqiao Road, Jinqiao Export Processing Zone, Pudong New Area, Shanghai, 201206

For Chemical Emergency Information, call: (800) 820-5800

Synonyms: None.

2. Composition/information on ingredients

Weight %	Components (CAS-No.)
60 - 80	Water (7732-18-5)
20 - 40	Hydrochloric acid (7647-01-0)

3. Hazards identification

Toxic. Toxic by inhalation. Causes severe burns. Irritating to respiratory system.

4. First aid measures

Inhalation: If inhaled, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately even if symptoms of respiratory tract irritation are mild or quickly subside as lung injury may have occurred.

Eyes: In case of contact with eyes, flush immediately with plenty of water and seek medical attention. Get medical attention immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes.

Ingestion: Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

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5. Fire-fighting measures

Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products.

Hazardous Combustion Products: None (noncombustible), (see also Hazardous Decomposition Products section).

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Shovel into suitable container for disposal. Clean contaminated surface thoroughly.

7. Handling and storage

Personal precautions: Avoid breathing mist or vapour at concentrations greater than the exposure limits. Do not get in eyes, on skin, or on clothing. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: No special technical protective measures required.

Storage: Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section.)

8. Exposure controls / personal protection

Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
Hydrochloric acid	CN OEL	Ceiling Limit Value:	7.5 mg/m3
Hydrochloric acid	ACGIH	Ceiling Limit Value:	2 ppm

Ventilation: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

Respiratory protection: If engineering controls do not maintain airborne concentrations

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below recommended exposure limits, an approved respirator must be worn. Respirator type: Acid gas. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

Eye protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection: Wear impervious gloves and protective clothing appropriate for the risk of exposure.

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. Physical and chemical properties

Physical form: liquid

Colour: colourless

Odour: No data available

Specific gravity: No data available

Vapour pressure: No data available

Vapour density: No data available

Volatile fraction by weight: 80 %

Boiling point/range: 109.0 °C (228.2 °F)

Melting point/range: -15.0 °C (5.0 °F)

Water solubility: complete

pH: < 1.0

Flash point: does not flash

Flammability Limits: Not specified

10. Stability and reactivity

Stability: Stable under normal conditions.

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No exotherm to boiling.

Incompatibility: Water, Alcohols, Amines, Bases, carbides, Sulphides. Reacts with metals forming flammable gases.

Hazardous decomposition products: hydrogen chloride.

Hazardous Polymerization: Hazardous polymerization does not occur.

11. Toxicological information

Effects of Exposure

General advice:

Contains: Hydrochloric acid. Acute overexposure to extremely high airborne concentrations of respiratory irritants has been associated with development of an asthma-like reactive airways syndrome (RADs) in susceptible individuals. The following exposure effects are based on pH of the solution, concentration of the acid, and a review of the literature.

Inhalation: Toxic by inhalation. Airborne dust/mist/vapor extremely irritating. Can cause delayed lung injury.

Eyes: Causes severe burns. Airborne dust/mist/vapor extremely irritating.

Skin: Causes severe burns.

Ingestion: May be harmful if swallowed. May cause burns of the gastrointestinal tract if swallowed.

12. Ecological information

This material is expected to be toxic to aquatic organisms.

13. Disposal considerations

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws.

14. Transport information

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of

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the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

IATA:	UN Number:	UN1789
	Proper shipping name:	Hydrochloric acid
	Class:	8
	Packaging group:	II
IMDG:	UN Number:	UN1789
	Proper shipping name:	HYDROCHLORIC ACID
	Class:	8
	Packaging group:	II

For more transportation information, go to: <http://ship.carestreamhealth.com>.

15. Regulatory information

Notification status

Regulatory List	Notification status	Other information	Not listed
EINECS	y (positive listing)	-	
TSCA	y (positive listing)	On TSCA Inventory	
AICS	y (positive listing)	-	
DSL	y (positive listing)	All components of this product are on the Canadian DSL list.	
ENCS (JP)	y (positive listing)	-	
KECI (KR)	y (positive listing)	-	
PICCS (PH)	y (positive listing)	-	
INV (CN)	y (positive listing)	-	

A N (Negative listing) indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Kodak.

Dangerous Chemicals list -2002 published by China National Security to produce Surveillance administrative Bureau: Not listed

Other regulations

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American Conference of Governmental Industrial Hygienists (ACGIH):

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

International Agency for Research on Cancer (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.

U.S. National Toxicology Program (NTP):

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

U.S. Occupational Safety and Health Administration (OSHA):

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

16. Other information

The data below reflects current legislative requirements whereas the product in your possession may carry a different version The actual label information will depend upon the intended use of the product.

Labeling:

Warning: DANGER!

Contains: Hydrochloric acid 0 %



Symbol/Indication of Danger:

T: Toxic

Risk Phrases:

R23: Toxic by inhalation.

R35: Causes severe burns.

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R37: Irritating to respiratory system.

Safety Phrases:

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.
