



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93,TENGFEI BUILDING,NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION
PARK,NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA
Tel.:+025-83365586
Website:<https://www.epoch-master.com>

Material Safety Data Sheet

Hydrochloric Acid

Section 1 Chemicals and Corporation Identify

Chinese name of chemicals: Yansuan

English name of chemicals: Hydrochloric Acid

Supplier: EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

Address: RM.3-93,TENGFEI BUILDING,NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION
PARK,NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Fax:025-83365586

Emergency telephone: 86-13770711448

Section 2 Component Information

Name of chemicals: Hydrochloric Acid

Components	Content (%)	CAS NO.
Hydrochloric Acid	31-37%	7647-01-0
Water	63-69%	7732-18-5

Molecular weight: 36.46

Molecular formula: HCL

Section 3 The Summary of Risk

Risk category: Grade 8.1 Acid corrosives

Route of entry: Eye or skin contact, inhaling or ingesting

Health hazard:



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93,TENGFEI BUILDING,NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION
PARK,NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.:+025-83365586

Website:<https://www.epoch-master.com>

Acute:

Inhaling: Exposure to the steam or smoke can cause acute poisoning, such as conjunctivitis, a burning sensation on nose and oral mucosa, epistaxis, gingiva bleeding, bronchitis, etc.

Eye or skin contact: It can cause chemical burns. Chronic toxicity: The long-term exposure will cause chronic rhinitis, chronic bronchitis, dental erosion and skin lesions.

Ingesting: Wrongly ingesting will cause gastrointestinal burn and ulcerative, even can cause gastric perforation, peritonitis and etc.

Carcinogenicity: No data available.

Environment hazards: The substance is hazard to the environment. Please pay attention to the pollution to water and soil.

Explosion hazard: This substance is non-inflammable, but strongly corrosive and strongly irritant and can cause human body burns.

Section 4 Emergency Measures

Skin contact: Take off the polluted clothing immediately and wash with large flowing water for at least 15 minutes. See a doctor.

Eye contact: Rise eyelid immediately and wash with large flowing water or physiological saline for at least 15 minutes. See a doctor.

Inhaling: Remove the site to air-fresh place rapidly and keep the airway open. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration immediately and seek for medical attention.

Ingesting: Gargle with water and drink the milk or egg-white. See a doctor.

Section 5 Fire Fighting Measures

Hazard properties: The substance can react with active metal powder releasing the hydrogen, react with cyanide producing



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93,TENGFEI BUILDING,NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION
PARK,NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.:+025-83365586

Website:<https://www.epoch-master.com>

hypertoxic hydrogen cyanide and react with alkali issuing a large amount of heat. It has strongly causticity.

Harmful combustible substance: Hydrogen chloride

Extinguishing methods and extinguishing agents: The mist water, sand and carbon dioxide fire extinguisher are available.

Neutralize with the alkaline substances, such as sodium bicarbonate, sodium carbonate, hydrated lime, and so on. Fighting the blaze with plenty of water is feasible too.

Fire precautions: No data available.

Section 6 Emergency Measures for Leakage

Emergency measures for leakage: Evacuate the personnel in leakage-contaminated areas to a safe area and isolate with strict restrictions on access. Suggest the emergency crews wear self sufficient positive-pressure respirator and anti-acid&alkali work clothing. Don't contact the leakage directly. Cut off the leak source as far as possible. Prevent people into restrictive space such as sewer, drainage ditch and so on.

Eliminating methods: If the leak is small, we can mix it with sand, dry lime or soda ash. We also can wash it with plenty of water; drain the wash water into wastewater system after diluting. If the leak is large, uptake by constructed diking or digged pit; transfer them into the tanker or special collector with pump for recycle or ship to the waste disposal sites to deal with.

Section 7 Operation and Storage

Operation cautions: Airtight operation and pay attention to the ventilation. Operate should be mechanized and automated as far as possible. Operators must receive special training and strictly abide by the operating instructions. Suggest that operator wear self-priming filter gas mask (full cover), acid&alkali resistant rubber clothing and acid&alkali resistant rubber gloves.

Keep away from the flammable or combustible substance. Prevent the steam leaking to the workplace. Avoid contacting with alkalis, amines, alkali metal. Load and unload gently when transporting to prevent damaging the package and container.

Equip with leakage emergency treatment facility. The emptied containers may remain hazard.



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93,TENGFEI BUILDING,NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION
PARK,NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.:+025-83365586

Website:<https://www.epoch-master.com>

Storage notes: Store in a cool, well ventilated warehouse. Storage temperature is less than 30°C, and the relative humidity is less than 85%. Keep the container sealed. Keep separate from alkalis, amines, alkali metal and flammable or combustible substance and be careful not to place them together. The leakage emergency treatment facility and appropriate collecting containers should be available in the storage area.

Section 8 Exposure Controls/ Personal Protection

Maximum allowable concentration: Chinese MAC (mg/m³) 15

Monitoring methods: Mercury thiocyanate colorimetric method

Engineering controls: Operate in a sealed area and pay attention to ventilation. Handling should be mechanization and automation as far as possible. Provide safety shower and eyewash facility.

Respiratory protection: If it is possible to expose to the smog, wear self-supporting filter mask (full face task) or air respirator. Oxygen breathing apparatus are recommended to wear when emergency rescuing or evacuating. .

Eyes protection: Wear chemical safety goggles

Body protection: Wear acid& alkali resistant rubber clothing

Hands protection: Wear acid& alkali resistant rubber gloves

Other protections: No smoking, eating and drinking in working site. Take a shower and put on clean clothes after work. Place the contaminative clothes alone and wash for use. Keep a good health habit.

Section 9 Physical and Chemical Properties

Appearance and character: Liquid with yellowish and pungent odor

Melting point(°C):-114.8(pure)

Relative density(water=1): 1.187

Boiling point(°C): 108.6 (20%)

Relative vapor density

(water=1) : 1.259 Saturated vapor pressure(Kpa): 30.66(21°C)

Combustion heat: Not applicable



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93,TENGFEI BUILDING,NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION
PARK,NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.:+025-83365586

Website:<https://www.epoch-master.com>

Critical temperature (°C) : Not applicable Critical pressure (MPa) : Not

applicable Logarithm of octanol-water partition coefficients: Not applicable

Flash point(°C): Not applicable Upper explosion limit (v/v) : Not applicable

Burning temperature(°C): Not applicable Lower explosion limit(v/v): Not applicable

Solubility: Miscible with water and soluble in alkaline solutions

Main applications: Important inorganic chemicals, extensively used in the field of dyestuff, pharmacy, foods, printing and dyeing, metallurgy and other industries.

Section 10 Stability and Reactivity

Stability: Volatile at ordinary pressure

Restricted substance: Alkali, amines, alkali metals, inflammables or combustible

Conditions to avoid: No data available

Hazardous polymerization: None

Decomposition products: Hydrogen chloride

Section 11 toxicological information

Acute toxicity:LD50: No data available (orally in rats)

LD50: No data available (cutaneously in

rats) LC50: No data available(inhale in rats)

Subacute and chronic toxicity: No data available

Epidemiology: No data available.

Teratogenicity: No data available

Reproductive Effects: No data available

Mutagenicity: No data available

Neurotoxicity: No data available



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93,TENGFEI BUILDING,NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION
PARK,NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA
Tel.:+025-83365586
Website:<https://www.epoch-master.com>

Section 12 Ecological Information

Ecotoxicity: No data available

Biodegradability: No data available

Abiotic degradability: No data available

Bioconcentration or Bioaccumulation: No data available

Other adverse effects: The substance is hazard to environment, especially the contamination to waters and soil.

Section 13 Waster Disposal

Waste properties: Hazardous waste Industrial solid waste

Disposal methods: Neutralize with soda lye — —aqua calcis generating sodium chloride and calcium chloride, then dilute with water followed by discharging into wastewater system.

Disposal cautions: Not applicable

Section 14 Transport Information

Chinese hazardous good No.: 81013

UN No.: 1789

Packaging mark: Chinese hazardous good classification acidic corrosives (Grade 8.1)

Chinese hazardous good packing symbol: 20

Packaging category: UN grade: No data available

Chinese hazardous good package grade: I

Packaging methods: It is contained with acid resistant jar or ceramic bottle containing it and ordinary wooden case or half lattice wooden case outside; ampulla or plastic cask and ordinary wooden case or half lattice wooden case outside; ground surface glass or top threaded glass bottle with ordinary wooden case outside; threaded glass bottle, Iron cover glass bottle , plastic cask or metal drum and ordinary wooden case outside.



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93,TENGFEI BUILDING,NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION
PARK,NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.:+025-83365586

Website:<https://www.epoch-master.com>

Transportation cautions: When the substance is transported by railway, only use the rubber liner steel tank or the tanker self-provided by special plastic enterprises, and it should be submitted to concerned departments for approval prior to the shipment. It should be loaded in strict accordance with dangerous goods load table listed in TDGC. Ensure that the packaging is complete when shipping and the load is safe. Do ensure there are no leak, no collapse, no fall, and no damage in container during transport. Do not mix with alkalies, amines, alkali metals, flammables or combustibles, edible chemicals, etc. The transport vehicle should be equipped with accidental release disposing equipments. During transportation, keep away from fierce sunshine, rain washing and high temperature. This product is transported by road in indicated route. Do not stay residential areas densely populated areas.

Section 15 Regulatory Information

“Regulation on the Safety Administration of Dangerous Chemicals” (Decree NO.344 of the State Council)

“Implementation of the Regulations of safety Administration of Dangerous Chemicals” (Decree No.: 677 [1992] of Ministry of Chemical Industry)

“Regulations for Safe Use of Chemicals in Workplace”, (Decree No. : 423 [1996] of Labor Department), aiming at the safe use, production, storage, transportation, loading and unloading, etc.

The commonly used dangerous chemical classification and the symbol (GB 13690-92) assign this product as acidic corrosive substances at Grade 8.1.

Other Regulations: Regulations for Safely Synthesize Hydrochloric Acid (HGA004-83).

Section 16 Additional Information

Filing date: 1/20/2014

Filing department: Technical Department

Check department: Department of Safety and Environment Protection

Revised comment: Version 2