Safety Data Sheet

Revision date: 03/30/2015 *Version: 1.0*

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation:	Hydrochloric Acid
Product No.:	BDH3026-500MLP BDH3028-2.5LG BDH3030-2.5LPC BDH3032-3.8LP BDH3034-19L BDH3036-54L BDH3038-191L TX3038191LSOI TXBDH303238CPI TXLBDH3038DSOI BDH3128-2.2LP
Other means of identification: Aqueous hydrogen chloride, Muriatic acid	

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

Relevant identified uses: Manufacturing and Laboratory use

1.3. Details of the supplier of the safety data sheet

Company VWR International, LLC
Radnor Corporate Center
100 Matsonford Road
Radnor, PA 19087-8660
Telephone 610.386.1700

1.4. Emergency Telephone number

CHEMTREC 800.424.9300
CANUTEC 613.996.6666

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

For the full text of the H-Statement(s) and R-phrase(s) mentioned in this Section, see Section 16.

Hazard classes and hazard categories	Hazard statements
Corrosive to metals; Category 1	May be corrosive to metals
Skin corrosion; Category 1B	Causes severe skin burns and eye damage
Serious eye damage; Category 1	Causes serious eye damage
Specific target organ toxicity-single exposure; Category 3	May cause respiratory irritation

2.2. GHS Label elements, including precautionary statements

Pictograms

Signal word Danger

Hazard statements	
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Precautionary statements	
P234	Keep only in original container.
P260	Do not breathe fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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/doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material-damage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant liner.
P501	Dispose of contents/container in accordance with local regulations.

2.3. WHIMS Classification

Class E: Corrosive material.
Class D-1A: Poisonous and infectious material- Immediate and serious effects- Very toxic

2.4. Hazards not otherwise classified (HNOC) or not covered by GHS or WHIMS

Not Available

SECTION 3: Composition / information on ingredients

3.1. Hazard components

Chemical name	Formula	Molecular weight	CAS#	Weight%
Hydrochloric Acid	HCl	36.46 g/mol	7647-01-0	36-38
Water	H_2O	18.00 g/mol	7732-18-5	Balance

SECTION 4: First aid measures

4.1. General information

In case of inhalation
Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respirations.

In case of skin contact
Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.

In case of eye contact
Immediately rinse with plenty of water for at least 15 minutes and seek medical attention.

In case of ingestion
Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Contact with skin may cause staining severe burns depending on duration of contact. Contact to eyes may cause severe burns and possible irreversible eye damage including corneal injury and cataracts. Inhalation may cause coughing burns and breathing difficulty. May cause acute

pulmonary edema. Ingestion may cause burns, nausea, vomiting, convulsions, shock, and may cause severe and permanent damage to gastrointestinal tract.

4.3. Indication of any immediate medical attention and special treatment needed

Not Available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use appropriate media for adjacent fire. Cool unopened containers with water.

5.2. Special hazards arising from the substance or mixture

Hydrogen chloride gas

5.3. Special protective equipment for firefighters

Not Available

5.4. Hazardous combustion products

Not Available

5.5. Advice for firefighters

Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

5.6. Additional information

Not Available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See section 8 for recommendations on the use of personal protective equipment.

6.2. Environmental precautions

Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.

6.3. Methods and material for containment and cleaning up

Neutralize spill with sodium bicarbonate or soda lime. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

6.4. Additional information

Not Available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool, dry, well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities). Avoid formation of aerosols.

7.3. Specific end use(s)

Not Available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Limit value type & Country of Origin	Exposure Limit value	Source
Hydrochloric Acid	2 ppm 2.98 mg/m^3	CEIL	ACGIH
	5 ppm 7 mg/m^3	CEIL	OSHA
	5 ppm 7 mg/m^3	CEIL	NIOSH
	50 ppm	IDLH	OSHA

8.2. Exposure controls

Appropriate engineering controls

Showers

Eye wash stations

Ventilation system

Personal protection equipment

Eye/face protection

Safety glasses or goggles with face shield

Skin protection

Nitrile or rubber gloves and full body protection

Respiratory protection

Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practices.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

a)	Appearance:	
	Physical state	Liquid
	Color	Clear and light yellow to colorless
b)	Odor	Strong, pungent odor
c)	Odor Threshold	0.25 – 10 ppm
d)	pH	Not Available
e)	Melting point/ freezing point	-30°C (-22°F)
f)	Initial boiling point and boiling range	Not Available
g)	Flash point	Not Available
h)	Evaporation rate	Not Available
i)	Flammability (solid, gas)	Not Available
j)	Upper/lower flammability or explosive limits	Not Available
k)	Vapor pressure	227 hPa (170 mmHg) at 21.1°C (70°F) 547 hPa (410 mmHg) at 37.7°C (99.9°F)
l)	Vapor density	1.267
m)	Relative density	1.18
n)	Solublities	Not Available
o)	Partition coefficient (n-Octanol/Water)	Not Available

p)	Auto-ignition temperature	Not Available
q)	Decomposition temperature	
r)	Viscosity	Not Available
s)	Explosive properties	Not Available
t)	Oxidizing properties	Not Available

9.2. Other information

Not Available

SECTION 10: Stability and reactivity

10.1. Reactivity

Not Available

10.2. Chemical stability

Stable under normal storage conditions

10.3. Possibility of hazardous reactions

Not Available

10.4. Conditions to avoid

Uncontrolled additions of water.

10.5. Incompatible materials

Metals, oxidizing agents, organic materials, alkalis, and water.

10.6. Hazardous decomposition products

Hydrogen chloride gas

SECTION 11: Toxicology

11.1. Information on toxicological effects

Acute toxicity

Oral LD_{50} - rat - 900 mg/kg

Inhalation LC_{50}

Dermal LD_{50}

Other information on acute toxicity

Skin corrosion/irritation

Not Available

Serious eye damage/eye irritation
Not Available

Respiratory or skin sensitization
Not Available

Germ cell mutagenicity
Not Available

Carcinogenicity
IARC – 3- Group 3: Not classifiable as to its carcinogenicity to humans (hydrochloric acid)
ACGIH – A4: Not classifiable as a human carcinogen (hydrochloric acid)

Reproductive toxicity
Not Available

Specific target organ toxicity-single exposure
Causes respiratory irritation.

Specific target organ toxicity-repeated exposure
Not Available

Aspiration hazard
Not Available

Additional information
Not Available

SECTION 12: Ecological information

12.1. Ecotoxicity
LC50 – Gambusia affinis (Mosquito fish) – 282 mg/L – 96h

12.2. Persistence and degradability
Not Available

12.3. Bioaccumulative potential
Not Available

12.4. Mobility in soil

Not Available

12.5. Results of PBT and vPvB assessment

Not Available

12.6. Other adverse effects

Not Available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

Land Transport DOT (U.S.)

UN Number 1789

Proper Shipping name Hydrochloric acid

Transport Hazard Classes

Class 8

Hazard Label(s) 8

Packing Group II

Environmental hazard(s)

Special precautions for user

Sea Transport IMDG

UN Number 1789

Proper Shipping name Hydrochloric acid

Transport Hazard Classes

Class 8

Hazard Label(s) 8

EMS- No. F-A, S-B

Packing Group II

Environmental hazard(s)

Segregration Group
Special precautions for user

Air Transport IATA

UN Number 1789
Proper Shipping name Hydrochloric acid
Transport Hazard Classes
Class 8
Hazard Label(s) 8
Packing Group II
Environmental hazard(s)
Special precautions for user

SECTION 15: Regulatory information

OSHA Hazards

Corrosive

SARA 302 Extremely Hazardous Substances

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 313 (TRI reporting)

Hydrochloric Acid

SARA 311/312 Hazardous Chemicals

Acute Health Hazard

Massachusetts Right-To-Know Substance List

Hydrochloric Acid

Pennsylvania Right-To-Know Hazardous substances

Hydrochloric Acid
Water

New Jersey Worker and Community Right-To-Know Components

Hydrochloric Acid
Water

California Propostion 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Inventory status:
Canada DSL Inventory List: Listed
US TSCA Inventory List: Listed
EINECS, ELINCS or NLP: 231-595-7

SECTION 16: Other information

Full text of H-Statement(s) and R-phrase(s)

H314 Causes severe skin burns and eye damage.

R34 Causes burns.

Canadian Carcinogenicity hazard class
PHNOC hazard class
HHNOC hazard class
Biohazardous Infectious Materials hazard class

NFPA Rating:

Health: 3
Flammability: 0
Reactivity: 1
Special Hazard:

DISCLAIMER

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.