



Safety Data Sheet

1. Identification of the substance and of the supplier

Product Identifier :

Product name : Hydrochloric Acid 35%

Other means of identification : HCl

Other indications : CAS No. : 7647-01-0

Recommended use of the chemical and restrictions on use : Industrial use.

Manufacture's details :

Company : Iharanikkei Chemical (Thailand) Co., Ltd.

Address : 8/8 Phangmuang Chapoh 3-1 Road,
Huaypong, Muang Rayong, Rayong 21150 Thailand

Phone number : 033-017-451-3

Fax : 033-017-454

Emergency phone number : 033-017-541-3 Ext. 217, 218, 219

2. Hazards Identification

GHS classification of the substance or mixture :

Physical hazards

Corrosive to metals Category 1

Health hazards

Acute toxicity (oral) Category 4

Acute toxicity (dermal) Category 4

Acute toxicity (mist) Category 3

Skin corrosion/irritation Category 1

Serious eye damage/eye irritation Category 1

Specific target organ toxicity following single exposure
(Respiratory system) Category 1

Specific target organ toxicity following repeated exposure
(Respiratory system, teeth) Category 1

Aspiration hazards Category 1



Environmental hazards

Acute hazards to the aquatic environment

Category 1

GHS label elements :



Signal word

Danger

Hazard statement

[Physical hazards]

May be corrosive to metals

[Health hazards]

Harmful if swallowed

Harmful if in contact with skin

Toxic if inhaled (gas, vapour, dust and mist)

Causes severe skin burns and eye damage

Causes serious eye damage

May cause allergy or asthma symptoms or breathing difficulties if inhaled

Causes damage to organs (Respiratory system)

Causes damage to organs through prolonged or repeated exposure (Respiratory system, teeth)

May be fatal if swallowed and enters airways

[Environmental hazards]

Very toxic to aquatic life

Precautionary statement

[Prevention precautionary statements]

Keep only in original container.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

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



IN case of inadequate ventilation: wear respiratory protection.

[Response precautionary statements]

IF SWALLOWED: Immediately Call a POISON CENTER or doctor/physician

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of water/soap

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Call a POISON CENTER or doctor/physician

Immediately call a doctor.

Rinse mouth.

Do NOT induce vomiting.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Take off contaminated clothing and wash it before reuse.

Absorb spillage to prevent material-damage.

Collect spillage.

[Storage precautionary statements]

Store locked up.

Store in corrosive resistant /container with a resistant inner liner.

[Disposal precautionary statements]

Dispose of contents/container in accordance with local/regional/national/international regulation.

Other hazards which do not result in classification : No data available

**3. Composition/Information on Ingredients****Mixture**

Chemical identity of the substance :	Hydrogen Chloride	Water
Molecular formula :	HCl	H ₂ O
Composition :	35.5 %	64.5 %
Molecular weight :	36.46	18.01
CAS No.:	7647-01-0	7732-18-5
EINECS No.:	231-595-7	231-791-2
TSCA	Listed	Listed
Impurities and stabilizing additives which are themselves classified and which contribute to the classification of the substance :	None	-

4. First Aid Measures

If inhaled : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Immediately call a POISON CENTER or doctor/physician.

If on skin : Remove/Take off immediately all contaminated clothing.

Rinse skin with water/shower.

Immediately call a POISON CENTER or doctor/physician.

If in eyes : Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician.

If swallowed : Rinse mouth. Do NOT induce vomiting.

Immediately call a POISON CENTER or doctor/physician.

Symptoms/effects, acute and delayed : Data not available

Expected symptoms/effects, Data not available

acute and delayed

Personal precautions : Wear proper personal protective equipment

Special information for Doctor : Data not available



5. Fire Fighting Measures

Suitable extinguishing media :

This product is incombustible.

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

Inappropriate extinguishing media : Data not available

Special hazards arising from the substance or mixture :

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Special extinguishing procedures :

Remove container from fire area if safe to do so.

Declare off-limits to non-participants around fire area.

Special protective equipment and precautions for fire-fighters :

Responders should wear self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective clothing.

6. Accidental Release Measure

Personal precautions, protective equipment and emergency procedures :

Immediately isolate the area at suitable distance in all directions.

Declare off-limits to non-participants around fire area.

Use proper personal protective equipment as indicated in Section 8 to prevent any contamination of skin, eyes and clothing.

Environmental precautions : Avoid release to the environment.

Method and materials for containment and cleaning up :

Recover the spilled liquid with an inactive absorbent and put into chemical waste container.

Containment and cleaning up : Consult an expert on disposal regulations.

Shut off the source if possible to do so without undue hazard.

Preventions of secondary disaster: Do not allow contact with water.



7. Handling and Storage

Precautions for safe handling :

Technical measure	Refer to "8. Exposure controls / personal protection" and use proper personal protective equipment.
Local/general ventilation	Refer to "8. Exposure controls / personal protection" and use adequate local/general ventilation equipment.
Handling precautions	Store in a cool, dry, well-ventilated place away from incompatible materials. Keep containers and apparatus tightly closed. Keep away from eyes, skin or clothing; wash thoroughly after handling. Containers will retain product residue and vapors after being emptied. Always obey hazard warnings and handle empty containers as though they were full. Do not breathe dust/fume/gas/mist/vapours/spray.
Avoid contact	Refer to "10. Stability and reaction".

Conditions for safe storage, including any incompatibilities :

Technical measure	Store well-ventilated place.
Contact hazard substance	Refer to "10. Stability and reaction".
Appropriate safe storage conditions	Keep container tightly closed. Store in a cool, dark and well-ventilated place.
Safe container wrapping material	There are no wrapping and regulation of a container, but it's put in something which is not damaged in direct vent system.



8. Exposure Controls/Personal Protection

Control parameters Exposure limits :

Japan Society for Occupational Health 2 ppm (3.0 mg/m³)

Appropriate engineering controls :

Facilities storing or utilizing this material should be equipped with an eye wash facility and a safety shower.

Use mechanical ventilation to keep airborne and to reduce dust concentration.

Individual protection measures, such as

Personal protective equipment (PPE) :

Respiratory protection :

Wear proper respiratory mask.

Eye protection :

Wear proper eye protection (chemical goggles as a minimum)

Hand protection :

Wear appropriate protective gloves (rubber gloves with gauntlets).

Protective clothing :

Wear acid-resistant slicker suit with rubber apron, rubber with pants outside and rubber gloves with gauntlets.

Sanitary measures :

Wash hands thoroughly after handling.

**9. Physical and Chemical Properties**

Physical state:	Liquid
Color:	Colorless
Odor:	Pungent smell
pH:	< 1
Melting point/freezing point:	-114 °C (Hydrogen chloride)
Initial boiling point and boiling range:	276 °C (Hydrogen chloride)
Flash point:	Data not available
Evaporation rate:	Data not available
Flammability (solid, gas):	Data not available
Upper/lower flammability or explosive limits:	Data not available
Vapor pressure:	Data not available
Vapor density:	Data not available
Relative density:	1.18 g/cm ³ (15 °C)
Solubility(ies); Water:	Soluble in alcohol
Partition coefficient: n-octanol/water:	Data not available
Auto-ignition temperature:	Data not available
Decomposition temperature:	Data not available
Viscosity:	Data not available
Lower limit of dust explosion:	Data not available
Minimum ignition energy:	Data not available
Volume resistivity (electro conductivity):	Data not available

10. Stability and Reactivity

Stability :	Stable under normal temperatures and pressures.
Possibility of hazardous reactions :	React with bases, metals
Conditions to avoid :	Contact with incompatible materials
Incompatible materials :	Organic substance, Combustible materials, Metals, Reducing agent, Bases
Hazardous decomposition products :	Hydrogen chloride, hydrogen, Chlorine

**11. Toxicological Information**

Acute toxicity;

Oral	Rabbit LD ₅₀ = 900 mg/kg	(Category 4)
Dermal	Rabbit LD ₅₀ = 1,449 mg/kg	(Category 4)
Inhalation (Gas) :	Data not available	(Classification not possible)
Inhalation (Vapor) :	Data not available	(Classification not possible)
Inhalation (Dust) :	Data not available	(Classification not possible)
Inhalation (Mist) :	Mouse LC ₅₀ = 1,108 ppm/1 hr	(Category 3)
Skin corrosion/irritation :	pH <1	(Category 1)
Serious eye damage/irritation :	pH <1	(Category 1)
Respiratory or skin sensitization :	Data not available	(Classification not possible)
Germ cell mutagenicity :	Data not available	(Classification not possible)
Carcinogenicity :	Data not available	(Classification not possible)
Reproductive toxicity :	Data not available	(Classification not possible)
STOT-single :	Respiratory system	(Category 1)
STOT-repeated exposure :	Respiratory system and teeth	(Category 1)
Aspiration hazard :	Aspiration hazard	(Category 1)

12. Ecological Information

"Hazardous to the aquatic environment -Acute Toxicity-"

Crustacean (Daphnia magna) ; 48 hr EC₅₀ = 0.492 mg/l

"Hazardous to the aquatic environment-Chronic Toxicity-"

Data not available (Classification not possible)



13. Disposal Considerations

- Disposal methods :** Examine possibilities for re-utilization. Package product wastes. Close and label the waste receptacles and, likewise, any un-cleaned empty containers.
- Dispose of them at a suitable waste incineration plant in accordance with the official regulations.
- Where large quantities are concerned, consult the supplier.
- When un-cleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues.
- Contaminated packaging :** Dispose of contents/container in accordance with local/regional/national/international regulation. When dispose of a container, remove contents.

14. Transport Information

AIR (IATA)

- UN Number : 1789
- Proper shipping name : Hydrochloric acid
- Transport hazard class (es) : 8
- Hazard label : Corrosive
- Packing group : II

SEA (IMO)

- UN Number : 1789
- Proper shipping name : HYDROCHLORIC ACID
- Transport hazard class(es) : 8
- Packing group : II
- Marine pollutant : Yes

LAND (ADR/RID)

- UN Number : 1789
- Proper shipping name : HYDROCHLORIC ACID
- Transport hazard class(es) : 8
- Packing group : II



15. Regulatory Information

Regulations of Thailand

- 1) Notification of Ministry of Industry : The list of hazardous substances, B.E.2556 (2013)
Hydrochloric acid (CAS No. 7647-01-0)
Number 64, Type 3
- 2) Notification of The Department of The Labor Protection and Welfare : List of Hazardous Chemicals, B.E.2556 (2013)
Hydrochloric acid (CAS No. 7647-01-0)
Number 893

16. Other Information

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NFPA 704



Health	3	Can cause serious or permanent injury.
Red Flammability	0	Will not burn under typical fire conditions.
Yellow Instability	1	Normally stable but can become unstable at elevated temperatures and pressures.
White Special	-	

Reference : Safety Data Sheet of IHARANIKKEI CHEMICAL INDUSTRY CO., LTD. (Japan)

<https://chem.nlm.nih.gov/chemidplus/rn/99-63-8>

<https://hazmap.nlm.nih.gov/category-details?table=copytblagents&id=4296>