

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

### 1.1 Product identifier

|              |                      |
|--------------|----------------------|
| Product name | HYDROCHLORIC ACID 3% |
| CAS-No.      | 7647-01-0            |
| Product code | AR1301, SM1301       |

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

|                 |                                       |
|-----------------|---------------------------------------|
| Identified uses | Chemical for analysis and production. |
|-----------------|---------------------------------------|

### 1.3 Details of the manufacturer of the safety data sheet

|                  |                                                                           |
|------------------|---------------------------------------------------------------------------|
| Manufacturer     | RCI LABSCAN LIMITED.<br>24 Rama 1 Road, Pathumwan, Bangkok 10330 Thailand |
| Telephone number | (662) 613-7911-4                                                          |
| Fax number       | (662) 613-7915                                                            |

### 1.4 Emergency Telephone Number

|                 |                  |
|-----------------|------------------|
| Emergency phone | (662) 613-7911-4 |
|-----------------|------------------|

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Corrosive to metals (Category 1), H290

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 Label elements

#### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Warning

Hazard statement(s)

H290

May be corrosive to metals.

Precautionary statement(s)

P234

Keep only in original packaging.

P390

Absorb spillage to prevent material-damage.

### 2.3 Other hazards

None

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixture

#### Hydrochloric acid

Synonyms

Chlorohydric acid, Hydrogen chloride, Muriatic acid, Spirits of salt.

|           |           |              |         |                  |          |
|-----------|-----------|--------------|---------|------------------|----------|
| CAS-No    | EC-No     | EC-Index-No  | Formula | Molecular Weight | Weight % |
| 7647-01-0 | 231-595-7 | 017-002-01-X | HCl     | 36.46 g/mol      | 3        |

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component         | CAS-No    | Formula          | Concentration (%) | Classification                                                                                                                                                                                                   |
|-------------------|-----------|------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hydrochloric acid | 7647-01-0 | HCl              | 3                 | Corrosive to metals (Category 1), H290<br>Skin corrosion (Category 1B), H314<br>Serious eye damage (Category 1), H318<br>Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335 |
| Water             | 7732-18-5 | H <sub>2</sub> O | 97                | -                                                                                                                                                                                                                |

For the full text of the H-Statements mentioned in this Section, see Section 16

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

|                |                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice | Show this safety data sheet to the doctor in attendance.                                                                                                                                                                                                                                                                                                                        |
| Inhalation     | Move to fresh air in case of accidental inhalation of vapors. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth to mouth or mouth to nose. Use suitable instruments/apparatus.                                                         |
| Skin contact   | Remove contaminated clothing and wash affected skin with soap and water. If signs of poisoning appear, treat as for inhalation. Obtain medical attention. Wash contaminated clothing before reuse.                                                                                                                                                                              |
| Eye contact    | If the substance has got into the eyes, immediately wash out with plenty of water at least 15 minutes. Obtain medical attention.                                                                                                                                                                                                                                                |
| Ingestion      | Rinse mouth. Do not induce vomiting. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth to mouth or mouth to nose. Use suitable instruments/apparatus. Obtain medical attention. Never give anything by mouth to an unconscious person. |

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

The most important known symptoms and effects are described in section 2.2 and section 11

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

After swallowing: make victim drink water (two glasses at the most), avoid vomiting (risk of perforation). Immediately call in physician. Do not attempt to neutralize.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

In adaption to materials stored in the immediate neighborhood.

#### 5.2 Special hazards arising from the substance or mixture

Non-combustible. Hydrogen may form upon contact with metals (danger of explosion). Ambient fire may liberate hazardous vapors. The following may develop in event of fire: Hydrochloric acid gas.

**5.3 Advice for firefighters**

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

**5.4 Further information**

Contain escaping vapors with water. Prevent fire-fighting water from entering surface water or ground water.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Evacuate personnel to safe areas. Do not breathe vapors or spray mist. Wear a positive-pressure supplied-air respirator, flame retardant antistatic protective clothing. Shut off leaks if without risk. Keep people away from and upwind of spill/leak.

**6.2 Environmental precautions**

Contain or absorb leaking liquid with sand or earth, consults an expert. Prevent liquid entering sewers, basements and workpits. If substance has entered a water course or sewer or contaminated soil, advise police.

**6.3 Methods and materials for containment and cleaning up**

Spillage : soak up with inert absorbent material (e.g. sand, silica gel or chemical absorbent pads). Prevent liquid entering sewers, basements and workpits. Transfer to covered drums. Dispose of promptly. Dispose of promptly.

**6.4 Reference to other sections**

For disposal see **Section 13**.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Provision of good ventilation in the working area. The floor must be acid resistant. Suitable materials: Glass, Stoneware, porcelain, Polyvinyl chloride, Polyethylene ( PE), Polypropylene, Polytetrafluoroethylene PTFE (Teflon). Do not leave container open. Avoid spillage.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep tightly closed in a dry, cool and well-ventilated place. Keep out of direct sunlight and away from heat, water and incompatible materials. Requirements for containers, no metal containers.

**Storage class 8B (TRGS 510);** Non-combustible, corrosive hazardous materials.

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****8.2 Exposure controls****Appropriate engineering controls**

The product should only be used in ventilation hoods and fans.

**Individual protection measures (Personal protective equipment, PPE)****Eye/face protection**

Goggles giving complete protection to eyes.

**Skin protection**

Chemical resistant apron / corrosive protective clothing, heavy duty work shoes.

Handle with gloves

- Full contact wears gloves from nitrile rubber material.
- Splash contact wears gloves from natural latex material.

The select protective gloves have to satisfy the specifications of EU Directive 89/686 EEC and standard EN 374 derived from it.

### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Required when vapor/aerosols are generated filter E-(P2) (EN 141 or EN 14387).

### Environmental exposure controls

Prevent liquid entering sewers, basements and workpits.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                         |                                                          |
|-----------------------------------------|----------------------------------------------------------|
| Physical State                          | Liquid                                                   |
| Color                                   | Colorless                                                |
| Odour                                   | Odorless                                                 |
| Odour Threshold                         | Not Available                                            |
| pH                                      | <1 at 20°C                                               |
| Melting point/range                     | Not Available                                            |
| Boiling point/range                     | Not Available                                            |
| Flash point                             | Not Available                                            |
| Evaporation rate                        | Not Available                                            |
| Flammability (solid, gas)               | Not Available                                            |
| Explosion limits: lower                 | Not Available                                            |
| upper                                   | Not Available                                            |
| Vapor Pressure                          | Not Available                                            |
| Relative Vapor Density                  | Not Available                                            |
| Density                                 | 1.02 g/ml at 20°C                                        |
| Water solubility                        | Soluble at 20°C                                          |
| Partition coefficient (n-octanol/water) | Not Available                                            |
| Auto-Ignition temperature               | Not Available                                            |
| Decomposition Temperature               | Not Available                                            |
| Viscosity                               | Not Available                                            |
| Explosive properties                    | Not Explosive                                            |
| Oxidizing properties                    | The substance or mixture is not classified as oxidizing. |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Corrosive in contact with metals.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

The substance can react dangerously with various metals and metal alloys

### 10.4 Conditions to avoid

Heat

### 10.5 Incompatible materials

Bases, organic bases, various metals and metal alloys.

**10.6 Hazardous decomposition products**

Hydrogen gas (Hazardous decomposition products from under contact with metals).

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Mixture****Acute toxicity**

Not Available

**Skin corrosion/irritation**

No skin irritation

**Serious eye damage/eye irritation**

No eye irritation

**Respiratory or skin sensitization**

Not Available

**Germ cell mutagenicity**

Not Available

**Carcinogenicity**

Not Available

**Reproductive toxicity**

Not Available

**Specific target organ toxicity (STOT) - single exposure**

Not Available

**Specific target organ toxicity (STOT) - repeated exposure**

Not Available

**Aspiration hazard**

Not Available

**Further information**

The product should be handled with the care usual when dealing with chemicals.

**SECTION 12: Ecological information****Mixture****12.1 Toxicity**

Not Available

**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**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

Do not allow to enter waters, waste water or soil.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding law and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste or burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

**Contaminated packaging**

Disposal in compliance with official regulations. Handle contaminated packaging as hazardous waste in the same way of the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

**SECTION 14: Transport information****Land Transport (ADR/RID)**

|                              |                   |
|------------------------------|-------------------|
| UN Number                    | 1789              |
| UN proper shipping name      | HYDROCHLORIC ACID |
| Transport hazard class(es)   | 8                 |
| Packing group                | III               |
| Environmental hazards        | No                |
| Special precautions for user | Yes               |

**Sea transport (IMDG)**

|                              |                   |
|------------------------------|-------------------|
| UN Number                    | 1789              |
| UN proper shipping name      | HYDROCHLORIC ACID |
| Transport hazard class(es)   | 8                 |
| Packing group                | III               |
| Marine pollutant             | No                |
| Special precautions for user | Yes               |
| EmS                          | F-A S-B           |

**Air transport (IATA)**

|                              |                   |
|------------------------------|-------------------|
| UN Number                    | 1789              |
| UN proper shipping name      | HYDROCHLORIC ACID |
| Transport hazard class(es)   | 8                 |
| Packing group                | III               |
| Environmental hazards        | No                |
| Special precautions for user | No                |

**River transport (AND/ADNR)**

(Not examined)

## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Not Available

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16: Other information

### Recommended restrictions

Take notice of labels and safety data sheets for the working.

### Reference

Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Labelling according to EC Directives 67/548 EEC and Regulation (EC) No 1272/2008.

Transportation information according to Recommendations on the Transport of Dangerous Goods, Model Regulations. Twelfth revised edition. United Nations.

Institute for Occupational Safety and Health of the German Social Accident Insurance in Sankt Augustin/Germany, Source: IFA for Databases on hazardous substances (GESTIS).

### Further information

Contact to RCI Labscan Limited.

### Revision Date

27/05/2025

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.