

## Safety Data Sheet

### Hydrochloric Acid 32%

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#### SECTION 1: Identification

##### 1.1 GHS Product identifier

Product name	Hydrochloric Acid 32%
Product number	HCL32-20L
Brand	Hurstchem

##### 1.3 Recommended use of the chemical and restrictions on use

Laboratory Reagent

##### 1.4 Supplier's details

Name	Hurst Scientific
Address	2 Transit Place 6112 Forrestdale WA Australia
Telephone	1300 778 068
email	sales@hurstscientific.com.au

##### 1.5 Emergency phone number

Australian Poisons Information Centre 131 126      Australian  
Emergency Services 000

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#### SECTION 2: Hazard identification

##### General hazard statement

Classified as a Hazardous substance according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.  
Classified as a Dangerous goods according to the ADG Code for the Transport of Dangerous Goods by Road and Rail (7th Edition).

##### 2.1 Classification of the substance or mixture

###### GHS classification in accordance with: UN GHS revision 7

- Corrosive to metals, Cat. 1
- Serious eye damage/eye irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1B
- Specific target organ toxicity following single exposure, Cat. 3

##### 2.2 GHS label elements, including precautionary statements

###### Pictograms

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1. Corrosion; 2. Exclamation mark

### Signal word

**Danger**

### Hazard statement(s)

H290  
H314  
H318  
H335  
H336

May be corrosive to metals  
Causes severe skin burns and eye damage  
Causes serious eye damage  
May cause respiratory irritation  
May cause drowsiness or dizziness

### Precautionary statement(s)

P234  
P260  
P261  
P264  
P271  
P280

Keep only in original packaging.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wash ... thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.  
Immediately call a POISON CENTER/doctor/...  
Call a POISON CENTER/doctor/... if you feel unwell.  
Specific treatment (see ... on this label).  
Wash contaminated clothing before reuse.  
Absorb spillage to prevent material-damage.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Store in a corrosive resistant/... container with a resistant inner liner.  
Dispose of contents/container to ...

P301+P330+P331  
P303+P361+P353

P304+P340

P305+P351+P338

P310  
P312  
P321  
P363  
P390  
P403+P233  
P405  
P406  
P501

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous components

Component	Concentration
Hydrochloric acid (CAS no.: 7647-01-0)	> 25 %
Water (CAS no.: 7732-18-5)	< 75 % (volume)

## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

If inhaled

Evacuate to fresh air immediately. If unconscious place in recovery position, provide artificial respiration if breathing ceases.

In case of skin contact

Remove contaminated clothing and wash affected area with soap and water thoroughly. Seek medical attention.

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In case of eye contact	Flush eyes with copious amounts of water for at least 15 minutes. Seek immediate medical attention.
If swallowed	DO NOT induce vomiting. Rinse mouth out with water. Seek immediate medical attention.
Personal protective equipment for first-aid responders	Eye wash station, safety shower and First Aid kit.

#### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

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### SECTION 5: Fire-fighting measures

- 5.1 Suitable extinguishing media**  
Use media suitable for other material involved in fire.
- 5.2 Specific hazards arising from the chemical**  
Toxic gases may evolve (Hydrogen Chloride).
- 5.3 Special protective actions for fire-fighters**  
Wear SCBA (Self-Contained Breathing Apparatus) and full protective equipment.

**Further information**  
Hazchem code None allocated.

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### SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**  
Wear appropriate protective clothing. Ensure adequate ventilation. Avoid breathing in vapours, mist or gas. If possible contain the spill. Evacuate all unnecessary personnel.
- 6.3 Methods and materials for containment and cleaning up**  
Absorb with vermiculite or similar and place into a suitably labelled container. Dispose of waste according to local authority guidelines. Wash the affected area with a large volume of water. Do not contaminate drains or waterways.

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### SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**  
Use only in an adequately ventilated area. Avoid breathing in mists or vapours. Wear appropriate protective clothing to avoid any exposure and practice good personal hygiene.
- 7.2 Conditions for safe storage, including any incompatibilities**  
Store in a cool, dry, well-ventilated area. Keep container tightly closed. Metal containers must be lined.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

**CAS: 7647-01-0 (EC: 231-595-7)**

Hydrochloric acid

7.5mg/m<sup>3</sup>, 5ppm TWA; AU/SWA (AU): 5 Peak limitation ppm; 7.5 Peak limitation mg/m<sup>3</sup> TWA inhalation  
[Hydrogen chloride]

#### 8.2 Appropriate engineering controls

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Ensure adequate ventilation to maintain airborne concentrations below national exposure standards.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

Safety glasses or goggles,

#### Skin protection

Chemical-resistant gloves and laboratory coat.

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## SECTION 9: Physical and chemical properties

### Basic physical and chemical properties

Physical state	Liquid
Color	Clear
Odor	No distinct odour
Melting point/freezing point	-74 °C
Boiling point or initial boiling point and boiling range	100°C
Flammability	Non-flammable. Contact with strong alkalis may generate heat.
Lower and upper explosion limit/flammability limit	Not applicable
Flash point	
Auto-ignition temperature	
Decomposition temperature	
pH	Acidic
Kinematic viscosity	
Solubility	Water soluble
Partition coefficient n-octanol/water (log value)	
Vapor pressure	18mmHg @ 20°C
Density and/or relative density	Not available
Relative vapor density	1.6

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Non-reactive under recommended conditions for use and storage.

### 10.2 Chemical stability

Stable under recommended conditions for use and storage.

### 10.3 Possibility of hazardous reactions

Polymerisation will not occur.

### 10.4 Conditions to avoid

Metals and incompatibles.

### 10.5 Incompatible materials

Metals. Will react with water or steam to produce toxic and corrosive fumes. Keep away from strong oxidising agents, strong bases, cyanides and sulphides. Avoid contact with metals. Reacts with zinc, brass, galvanised iron, aluminium, copper and copper alloys.

### 10.6 Hazardous decomposition products

Toxic gases (Hydrogen Chloride) may evolve.

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## SECTION 11: Toxicological information

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### Information on toxicological effects

#### Acute toxicity

HEALTH EFFECTS:

ACUTE:

Eye Contact Will irritate the eyes, resulting in pain, stinging, redness, lacrimation and possible corneal burns (and blindness).

Skin Contact Will cause burns and irritation, resulting in pain, redness and swelling. Can also cause dermatitis.

Inhalation Will cause irritation to the mucous membranes of the nose, throat and respiratory system.

Ingestion Will cause burns, nausea, vomiting and abdominal pain.

#### Skin corrosion/irritation

Slight irritation.

#### Serious eye damage/irritation

Slight irritation.

#### Respiratory or skin sensitization

No classification available.

#### Germ cell mutagenicity

No classification available.

#### Carcinogenicity

Category 3 Carcinogen according to IARC monographs. Not classifiable as to its carcinogenicity to humans.

#### Reproductive toxicity

No classification available.

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

May cause respiratory irritation.

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

Based on the available data, the chemical is not considered to cause serious damage to health from repeated inhalation exposure. However, local irritation effects are expected due to the corrosivity of the chemical.

#### Aspiration hazard

No classification available.

#### Additional information

TOXICITY DATA Hydrochloric Acid: LC50 (Inhalation, Rat): 3124ppm

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## SECTION 12: Ecological information

#### Toxicity

Aquatic toxicity:

- LC50, Fish (*Gambusia affinis*): 282 mg/L (96 h) [Hydrochloric acid].

- EC50, Daphnia (Water flea): 56 mg/L (72 h) [Hydrochloric acid].

#### Persistence and degradability

Not available.

#### Bioaccumulative potential

Not expected to bio-accumulate.

#### Mobility in soil

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Not available.

### Other adverse effects

Environmental fate (exposure) Do not contaminate drains and waterways.

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## SECTION 13: Disposal considerations

### Disposal methods

#### Product disposal

Dispose of in accordance with local authority guidelines. Empty containers may still represent a hazard.

#### Packaging disposal

Dispose of in accordance with local authority guidelines. Empty containers may still represent a hazard.

#### Other disposal recommendations

Special precautions Nil.

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## SECTION 14: Transport information

14.1	UN Number	1789
14.2	UN Proper Shipping Name	Hydrochloric Acid
14.3	Transport hazard class(es)	8
14.4	Packing group	III

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## SECTION 15: Regulatory information

### 15.2 Chemical Safety Assessment

☑ Poison Schedule: S5.

☑ TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight hour working day, for a five day week.

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## SECTION 16: Other information

### 16.1 Further information/disclaimer

This SDS is prepared in accordance with the Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals

Code of Practice, (2011). The information contained within is believed to be accurate at the date of preparation/review. hurst

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determinations as to the suitability of the information provided to the application in which the product is to be used.

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### 16.2 Preparation information

References

1. Safe Work Australia, Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, (2011).
2. Safe Work Australia, National Code of Practice for the Labelling of Workplace Hazardous Chemicals (2015).
3. Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants (2013)
4. National Transport Commission Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code); Canprint: Canberra (2007), Volume 1, 7th Edition.
5. Standards Australia, Dangerous Goods Initial Emergency Response Guide: Australian Handbook (SAA/SNZ HB76); Homebush (2004).