LIMEAWAY
Safety Data Sheet

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

Product name: LIMEAWAY

Synonyms
HYDROCHLORIC ACID 32%

Product Code
790

Recommended use: Acidic descaler.

Supplier Name	**CLEAN PLUS CHEMICALS PTY LTD**
Address	16 George Young Street AUBURN NSW 2144
Telephone	02 9738 7444
Emergency	1800 201 700
Email	customerservice@cleanplus.com.au
Web Site	www.cleanplus.com.au
SDS Date	01 JULY 2024 Version 1.3

SECTION 2: Hazards identification

THIS PRODUCT IS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA.

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Corrosive to metals (Category 1), H290
Skin corrosion (Category 1B), H314
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

C	Corrosive	R34
Xi	Irritant	R37

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word Danger

Hazard statement(s)

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

Precautionary statement(s)

P234	Keep only in original container.
P260	Do not breathe vapours.
P264	Wash hand thoroughly after handling.
P271	Use only outdoor 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.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position 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 or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
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 inner liner.

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	32

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

Component	Concentration	Classification
Hydrochloric acid		
CAS-No 7647-01-0 EC-No 231-595-7 EC-Index-No 017-002-01-X	32%	Corrosive to metals (Category 1), H290 Skin corrosion (Category 1B), H314 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Hazardous ingredients according to Directive 1999/45/EC

Component	Concentration	Classification
Hydrochloric acid		
CAS-No 7647-01-0 EC-No 231-595-7 EC-Index-No 017-002-01-X	32%	C, Corrosive, R34 Xi, Irritant, R37

For the full text of the H-Statements and R-Phrases 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. Dab with polyethylene glycol 400. 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.

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). Prevent liquid entering sewers, basements and workpits. Transfer to covered drums. 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 at room temperature 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.

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

8.1 Control parameters

Derived No Effect Level (DNEL)

Application Area	Health Effects	Exposure	Value
Worker	Long-term Local effects	Inhalation	8 mg/m³
Consumer	Long-term Local effects	Inhalation	8 mg/m³

Predicted No Effect Concentration (PNEC)

Not Available

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

Appearance: From	Liquid
: Color	Colorless
Odour	Pungent
Odour Threshold	Not Available

pH	<1 at 20ºC
Melting point/range	-43ºC
Boiling point/range	80ºC
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Not Available
Explosion limits: lower	Not Available
upper	Not Available
Vapor Pressure	21.3 hPa at 20ºC
Relative Vapor Density	Not Available
Density	1.16 g/ml at 20ºC
Water solubility	Soluble at 20ºC
Partition coefficient (n-octanol/water)	Not Available
Auto-Ignition temperature	Not Available
Decomposition Temperature	Not Available
Viscosity	1.9 mPa.s
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. Reacts with alkalis, strong oxidizing agents and strong bases.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Risk of explosion in contact with alkali metals, conc. sulphuric acid, potassium permanganate.
The substance can react dangerously with aluminium, alkali hydroxide, amines, ammonia, fluorine, bases, oxidizing agents, metal carbides, calcium hydride, formaldehyde, copper sulphide, lithium silicide, metals, sodium hydride, sodium hypochlorite and its solutions, silanes, silicon dioxide, vinyl methyl ether and zinc.

10.4 Conditions to avoid

Heat

10.5 Incompatible materials

Aluminium, amines, carbides, hydrides, fluorine, potassium permanganate, strong alkali, salts of oxyhalogenic acids, conc sulfuric acid, semimetallic oxide, semimetallic hydrogen compounds, aldehydes, sulfides, lithium silicide, vinylmethyl ether.
Incompatible with various metals and metal alloys.

10.6 Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture

Acute toxicity

Not Available

Acute oral toxicity

Symptoms: burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach.

Acute inhalation toxicity
Irritations of the mucous membranes, coughing, and dyspnoea.

Skin corrosion/irritation
Burns

Serious eye damage/eye irritation
Burns, Risk of blindness

Respiratory or skin sensitization
Not Available

Germ cell mutagenicity
Not Available

Carcinogenicity
Not Available

Reproductive toxicity
Not Available

Teratogenicity
Not Available

Specific target organ toxicity (STOT) - single exposure
May cause respiratory irritation.

Specific target organ toxicity (STOT) - repeated exposure
Not Available

Aspiration hazard
Not Available

Further information
After a latency period: cardiovascular failure.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish	LC_{50} Leuciscus idus: 862 mg/l (1N solution)

12.2 Persistence and degradability
Not Available

12.3 Bioaccumulative potential
Not Available

12.4 Mobility in soil
Not Available

12.5 Other adverse effects
Forms corrosive mixtures with water even if diluted. Damage to plant growth. The following applies to Hydrochloric acid general: Harmful effect on aquatic organisms. Harmful effect due to pH shift.
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
Packaging group	II
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
Packaging group	II
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
Packaging group	II
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

Additional Information

ABBREVIATIONS:
ADB - Air-Dry Basis.
BEI - Biological Exposure Indice(s)
CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.
CNS - Central Nervous System.
EINECS - European Inventory of Existing Commercial Substances.
GHS – Globally Harmonized System
IARC - International Agency for Research on Cancer.
M - moles per litre, a unit of concentration.
mg/m3 - Milligrams per cubic meter.
NOS - Not Otherwise Specified.
NTP - National Toxicology Program.
OSHA - Occupational Safety and Health Administration.
pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm - Parts Per Million.
RTECS - Registry of Toxic Effects of Chemical Substances.
TWA/ES - Time Weighted Average or Exposure Standard.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Clean Plus Chemicals report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this Clean Plus Chemicals report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Report Status

This Safety Data Sheet document has been compiled by Clean Plus Chemicals. Further clarification regarding any aspect of this product should contact Clean Plus Chemicals directly. While Clean Plus Chemicals has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Clean Plus Chemicals accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.