SAFETY DATA SHEET

HYDROCHLORIC ACID 33%

Infosafe No.: 7EF8N
ISSUED Date : 29/09/2016
ISSUED by: JASOL NEW ZEALAND

CLASSIFIED AS HAZARDOUS

1. IDENTIFICATION

GHS Product Identifier
HYDROCHLORIC ACID 33%

Product Code
2181620, 2181020, 2181000, 2181010, 2181040, 2181050, 2181060, 2181023, 2181621

Company Name
JASOL NEW ZEALAND

Address
81 Leonard Road
Mt. Wellington Auckland
NEW ZEALAND

Telephone/Fax Number
Tel: +64 9 580 2105
Fax: +64 9 571 4388

Emergency phone number
0800 243 622

Emergency Contact Address
North Island:
81 Leonard Road, Mt. Wellington, Auckland 1060
Phone: +64 9 5802105
Fax: +64 9 5714388
South Island:
105 Rutherford Street, Christchurch 8023
Phone: +64 3 3844433
Fax: +64 3 3844431

(24 hour a day available)
0800 243622

E-mail Address
jasolnzorders@gwf.com.au

Recommended use of the chemical and restrictions on use
The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.
One of the most widely used acids for removing mortar, cleaning and etching brickwork and concrete surfaces. Hydrochloric Acid is also used for: Heavy rust and scale from ferrous metals. Metal pickling. Liquid pH decrease for water treatment.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture
Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.
Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods

on Land.
6.1B (Inhalation – vapours, dusts or mists) - Substance that is acutely toxic
6.1D (Oral) - Substance that is acutely toxic
6.1E (Oral) - Substance that is acutely toxic
8.1A Substance that is corrosive to metals
8.2B Substance that is corrosive to dermal tissue
8.3A Substance that is corrosive to ocular tissue
9.1D Substance that is slightly harmful to the aquatic environment or is otherwise designed for biocidal action
9.3C Substance that is harmful to terrestrial vertebrates

Signal Word (s)
DANGER

Hazard Statement (s)
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H402 Harmful to aquatic life.
H433 Harmful to terrestrial vertebrates.

Precautionary Statement (s)
P101 If medical advice is needed, have product container or label at hand.
P103 Read label before use.
P102 Keep out of reach of children.

Pictogram (s)
Skull and crossbones,Corrosion

Precautionary statement – Prevention
P234 Keep only in original container.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 Wear respiratory protection.

Precautionary statement – Response
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
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.
P320 Specific treatment is urgent (see on this label).
P322 Specific measures (see on this label).
P330 Rinse mouth.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

Precautionary statement – Storage

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.

Precautionary statement – Disposal
P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion
Hydrochloric acid	7647-01-0	30 - 40%
Water	7732-18-5	Remainder

4. FIRST-AID MEASURES

First Aid Measures
24 Hour Emergency Contact: 0800 CHEMCALL (0800 243 622)
New Zealand Poisons Information Centre: 0800 POISON (0800 764 766)
New Zealand Emergency Services: 111

Inhalation
If inhaled, remove from contaminated area. To protect rescuer, use a Full-face Type B (Inorganic and acid gas) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.

Ingestion
For advice, contact the National Poisons Centre at 0800 764 766 (0800 POISON) or +64 3 479 7248 or a doctor (at once). If swallowed, do not induce vomiting.

Skin
If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Eye contact
If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

First Aid Facilities
Eye wash facilities and safety shower should be available.

Advice to Doctor
1. Most Important Symptoms and Effects, Both Acute and Delayed:
- Over exposure may result in severe skin, eye and respiratory burns with permanent lung and tissue damage. Strong inorganic acid mists containing sulphuric acid is classified as carcinogenic to humans (IARC Group 1).

2. Immediate Medical Attention and Special Treatment Needed:
- Treat symptomatically.
For acute or short term repeated exposures to strong acids:
- Airway problems may arise from laryngeal oedema and inhalation exposure. Treat with 100% oxygen initially.
- Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling.
- Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise.
- Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the desiccating action of the acid on proteins in specific tissues.

Ingestion:
- Immediate dilution (milk or water) within 30 minutes post ingestion is recommended.
- DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury.

- Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful. Limit fluids to one or two glasses in an adult.
- Charcoal has no place in acid management.
Some authors suggest the use of lavage within 1 hour of ingestion.

Skin:
- Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping.
- Deep second-degree burns may benefit from topical silver sulfadiazine.

Eye:
- Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjunctival cul-de-sacs. Irrigation should last at least 20-30 minutes.
- DO NOT use neutralising agents or any other additives. Several litres of saline are required.
- Cycloplegic drops, (1% cyclopentolate for short-term use or 5% homatropine for longer term use) antibiotic drops, vasoconstrictive agents or artificial tears may be indicated dependent on the severity of the injury.
- Steroid eye drops should only be administered with the approval of a consulting ophthalmologist).

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
- Water spray or fog.
- Carbon dioxide (CO2).
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).

Specific Hazards Arising From The Chemical
- Non-combustible.
- Not considered to be a significant fire risk.
- Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.
- Heating may cause expansion or decomposition leading to violent rupture of containers.

Hazchem Code
2R

Decomposition Temperature
Not available.

Other Information
Advice for Firefighters:
- Decomposition may produce toxic fumes of: hydrogen chloride.
-Contains low boiling substance: Closed containers may rupture due to pressure build-up under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures
Wear appropriate protective equipment and clothing during clean-up. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

Clean-up Methods - Small Spillages
- Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.
- Check regularly for spills and leaks.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.

Clean-up Methods - Large Spillages
- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.

Environmental Precautions
Prevent product from entering waterways. If contamination has occurred advise local emergency services.

Other Information
Reference to Other Sections:
See section 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Contains low boiling substance:
Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.
- Check for bulging containers.
- Vent periodically
- Always release caps or seals slowly to ensure slow dissipation of vapours.
- DO NOT allow clothing wet with material to stay in contact with skin.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.

WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.

Conditions for safe storage, including any incompatibilities
Containers:
- DO NOT use aluminium or galvanised containers.
- Check regularly for spills and leaks.
- Lined metal can, lined metal pail/ can.
- Plastic pail.
- Polyliner drum.
- Packing as recommended by manufacturer. For low viscosity materials.
- Drums and jerricans must be of the non-removable head type.
- Where a can is to be used as an inner package, the can must have a screwed enclosure.

Storage:
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

Material	TWA	STEL	Peak
Hydrogen chloride	Not available	Not available	5ppm / 7.5 mg/m3

Appropriate Engineering Controls
Local exhaust ventilation usually required.

Personal Protective Equipment
Respiratory:
- If risk of overexposure exists, wear approved respirator with appropriate filter that has sufficient capacity.

Eye / Face:
- Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure.
- Chemical goggles. Whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted.
- Full face shield (20 cm, 8 in minimum) may be required for supplementary, but never for primary protection of eyes; have these afforded face protection.
- Alternatively a gas mask may replace splash goggles and face shields.

Hands:
- Elbow length PVC gloves.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:
- Frequency and duration of contact.

- Chemical resistance of glove material.
- Glove thickness and dexterity.
Feet / Body:
- When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form
Liquid

Appearance
Liquid

Colour
Clear to pale yellow

Odour
Strong acidic odour

Decomposition Temperature
Not available.

Melting Point
Not applicable

Boiling Point
91-98°C

Solubility in Water
Miscible

Specific Gravity
1.18

pH
pH (1% solution): Not available.
pH (as supplied): <1

Vapour Pressure
Not available

Vapour Density (Air=1)
Not available

Evaporation Rate
Not available.

Viscosity
Not available.

Volatile Component
100

Flash Point
Not applicable

Auto-Ignition Temperature
Not applicable

Explosion Limit - Upper
Not applicable

Explosion Limit - Lower
Not applicable

Molecular Weight
Not applicable

10. STABILITY AND REACTIVITY

Reactivity
Reacts with alkalis

Chemical Stability
Corrosive to many metals with the liberation of extremely flammable hydrogen gas.

Conditions to Avoid
Avoid contact with foodstuffs.

Incompatible materials
Incompatible with alkalis, oxidising agents, sodium hypochlorite, cyanides, and many metals.

Hazardous Decomposition Products
Hydrogen chloride.

Possibility of hazardous reactions
Reacts with oxidising agents and sodium hypochlorite liberating toxic chlorine gas.

11. TOXICOLOGICAL INFORMATION

Toxicology Information
No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. The symptoms or effects that may arise if the product is mishandled and if overexposure occurs are:

Acute Toxicity - Inhalation
- Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

Acute Toxicity - Dermal
- The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

Ingestion
The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.
The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.

Inhalation
Breathing in mists of aerosols will produce respiratory irritation.

Skin
The material can produce chemical burns following direct contact with the skin.

Eye
- When applied to the eye(s) of animals, the material produces severe ocular lesions which are present 24-hours or more after instillation.
- Direct eye contact with acid corrosives may produce pain, lachrymation, photophobia and burns. Mild burns of the epithelia generally recover rapidly and completely.

Chronic Effects
- Repeated or prolonged exposure to acids may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.
- Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.
- On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.
- Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.
- Chronic minor exposure to hydrogen chloride (HCl) vapour or fume may cause discolouration or erosion of the teeth, bleeding of the nose and gums; and ulceration of the nasal mucous membranes.
- Repeated exposures of animals to concentrations of about 34 ppm HCl produced no immediate toxic effects.
- Workers exposed to hydrochloric acid suffered from gastritis and a number of cases of chronic bronchitis have also been reported.

Repeated or prolonged exposure to dilute solutions of HCl may cause dermatitis.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Avoid contaminating waterways

Persistence and degradability
Low

Mobility
High

Bioaccumulative Potential
Low

Other Adverse Effects
No information provided.

13. DISPOSAL CONSIDERATIONS

Local Legislation
Recycle where possible, otherwise ensure that:
- Licenced contractors dispose of the product and its container.
- Disposal occurs at a licenced facility.

14. TRANSPORT INFORMATION

U.N. Number
1789

UN proper shipping name
HYDROCHLORIC ACID

Transport hazard class(es)
8

Sub.Risk
None

Packing Group
II

Hazchem Code
2R

IERG Number
40

UN Number (Sea Transport)
1789

UN Number (Road Transport)
1789

UN Number (Air Transport, ICAO)
1789

IATA/ICAO Hazard Class
8

IATA/ICAO Packing Group
II

IATA/ICAO Sub Risk
None

LIMITED QUANTITY - Max Net Quantity/Pkge
1L

IMDG UN No
1789

IMDG Hazard Class
8

IMDG Sub. Risk
None

IMDG Pack. Group
II

IMDG Subsidiary Risk
None

IMDG Marine pollutant
No

IMDG EMS
Fire: F-A, Spill: S-B

15. REGULATORY INFORMATION

National and or International Regulatory Information
Hydrogen chloride (CAS: 7647-01-0) is found on the following regulatory lists;
'CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP','GESAMP/EHS Composite List - GESAMP Hazard Profiles', 'IMO IBC Code Chapter 17: Summary of minimum requirements', 'IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk', 'International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs', 'International Council of Chemical Associations (ICCA) - High Production Volume List',' International Maritime Dangerous Goods Requirements (IMDG Code) - Goods Forbidden for Transport', 'New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)','New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals', 'New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data', 'New Zealand Hazardous Substances and New Organisms (HSNO) Act - Scheduled Toxic Substances', 'New Zealand Inventory of Chemicals (NZIoC)','New Zealand Workplace Exposure Standards (WES)','OECD Representative List of High Production Volume (HPV) Chemicals', 'United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances - Table II', 'United Nations List of Precursors and Chemicals Frequently used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control – Table II'

Water (CAS: 7732-18-5) is found on the following regulatory lists;
'IMO IBC Code Chapter 18: List of products to which the Code does not apply', 'New Zealand Inventory of Chemicals (NZIoC)','OECD Representative List of High Production Volume (HPV) Chemicals'

HSNO Approval Number
HSR001557

Other Information
Specific advice on controls required for materials used in New Zealand can be at:
http://www.epa.govt.nz/hazardous-substances/approvals/Pages/default.aspx.

16. OTHER INFORMATION

Date of preparation or last revision of SDS
29/9/2016

Technical Contact Numbers
24 Hour Emergency Contact: 0800 CHEMCALL (0800 243 622)
New Zealand Poisons Information Centre: 0800 POISON (0800 764 766)
New Zealand Emergency Services: 111

Other Information
The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the

reported Hazards are Risks in the workplace or other settings.
This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Jasol NZ cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.
If clarification or further information is needed, the user should contact their Jasol NZ representative or Jasol NZ at the contact details on page 1.
Jasol NZ's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

END OF SDS