

## Section 1: Identification of the Substance/Mixture and of the Supplier

**Product Name:** Spirit of Salt  
**Proper Shipping Name** Hydrochloric Acid  
**Recommended use:** For pickling and heavy duty cleaning of metal parts  
**Company Details** Marketing Chemicals Ltd  
**Address:** 7/343 Church Street , Penrose,  
Auckland. New Zealand  
**Telephone:** +64 9 634 3862 [8.00 am to 4.30pm – Monday to Friday]  
**Fax:** +64 9 634 3864  
**Emergency Telephone:** +64 274 736008(24 hours)  
National Poison Centre(24 hours): 0800 POISON [ 764 766]  
**Date of preparation** 3 February 2009

## Section 2: Hazard Identification



### DANGER

- Fatal if inhaled.
- Causes severe skin burns and eye damage.

### Prevention:

- Keep out of reach of children.
- Do not breathe fume/gas.
- Use only outdoors or in a well-ventilated area.
- Wear respiratory protection.as per section 8
- Read label before use.
- Wash hands thoroughly after handling.
- Wear protective gloves and eye/face protection

## Section 3: Composition/Information on Ingredients

| Name              | % by Wt. | CAS Number |
|-------------------|----------|------------|
| Hydrogen Chloride | 33.0     | 7647-01-0  |
| Water             | 67.0     | 7732-18-5  |

## Section 4: First Aid Measures

- Eyes:**
- Immediately hold the eyes open and wash continuously for at least 15 minutes with fresh running water.
  - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
  - Transport to hospital or doctor without delay.
  - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
- Skin:**
- Immediately flush body and clothes with large amounts of water, using safety shower if available.
  - Quickly remove all contaminated clothing, including footwear.
  - Wash affected areas with water (and soap if available) for at least 15 minutes.
  - Transport to hospital, or doctor.
- Ingestion:**
- Rinse mouth out with plenty of water.
  - If poisoning occurs, contact a doctor or Poisons Information Centre.
  - If swallowed, do NOT induce vomiting. Give a glass of water, if conscious only
- Inhalation:**
- If fumes or combustion products are inhaled: Remove to fresh air.
  - Lay patient down. Keep warm and rested.
  - If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
  - Transport to hospital, or doctor.

For Further Information Telephone (24 Hours)The National Poison Centre: 0800 Poison [764 766]

## Section 5: Fire Fighting Measures

- Fire** Extreme heat or contact with metals can release flammable hydrogen gas.
- Explosion** Not considered to be an explosion hazard.
- Extinguishing Media:** Use water spray. Neutralize with soda ash or slaked lime.
- Fire Fighting Instructions:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Structural firefighter's protective clothing is ineffective for fires involving hydrochloric acid. Stay away from ends of tanks. Cool tanks with water spray until well after fire is out.
- Unusual Fire and Explosion Hazards:**

## Section 6: Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Neutralize with alkaline material (soda ash, lime), then absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

## Section 7: Handling And Storage

Store in a cool, dry, ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. Keep out of direct sunlight and away from heat, water, and incompatible materials. Do not wash out container and use it for other purposes. When diluting, the acid should always be added slowly to water and in small amounts. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing. When opening metal containers, use non-sparking tools because of the possibility of hydrogen gas being present. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

## Section 8: Exposure Controls/Personal Protection

- Engineering Controls:** A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
- Eye / Face Protection:** Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.
- Body Protection:** Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.
- Respiratory Protection:** If the exposure limit is exceeded, a full facepiece respirator with an acid gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.
- Exposure Limits:**
- OSHA Permissible Exposure Limit (PEL): 5 ppm (Ceiling)
  - ACGIH Threshold Limit Value (TLV):2 ppm (Ceiling)
- Not classifiable as a human carcinogen

## Section 9: Physical And Chemical Properties

|                         |                                    |
|-------------------------|------------------------------------|
| Appearance              | Colorless, fuming liquid.          |
| Odour                   | Pungent odor of hydrogen chloride. |
| Specific Gravity        | 1.18                               |
| Vapour Pressure (mm Hg) | 190 @ 25C                          |

|                     |  |
|---------------------|--|
| Vapour Density      | Not available  |
| Solubility in water | Infinite in water with slight evolution of heat.           |
| % Volatiles         | 100  |
| Evaporation Rate    | Not available  |
| pH                  | For HCL solutions: 0.1 (1.0 N), 1.1 (0.1 N), 2.02 (0.01 N) |

## Section 10: Stability And Reactivity

|  |  |
|--|--|
| <b>Stability of the Substance:</b>                         | Stable under ordinary conditions of use and storage. Containers may burst when heated.   |
| <b>Conditions to avoid:</b>                                | Heat, direct sunlight.   |
| <b>Materials to avoid:</b>                                 | A strong mineral acid, concentrated hydrochloric acid is incompatible with many substances and highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde. |
| <b>Hazardous Decomposition Products:</b>                   | When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.  |
| <b>Conditions Contributing to Hazardous Polymerization</b> | Will not occur.  |

## Section 11: Toxicological Information

|                    |   |
|--------------------|---|
| <b>Eyes:</b>       | SPECIES:<br>RESULT: Corrosive                                       |
| <b>Skin:</b>       | SPECIES:<br>RESULT: Corrosive; UN CLASS: 8 PG II                    |
| <b>Ingestion:</b>  | SPECIES: Rat ;ENDPOINT: LD50<br>VALUE: 700 mg/kg                    |
| <b>Inhalation:</b> | Inhalation Form: ;SPECIES: Mouse; ENDPOINT: LC50<br>VALUE: 3.2 mg/l |

## Section 12: Ecological Information

SPECIES: Lepomis macrochirus (Fish, fresh water)

TYPE OF EXPOSURE: Semistatic.

RESULT: The LC50 (24h, 48h and 96h) for HCl was between pH 3.5 and 3.25.

SPECIES: Daphnia magna (Crustacea)

TYPE OF EXPOSURE:;DURATION: 72 hr;ENDPOINT: LC80;VALUE: 56 mg/l

SPECIES: Rat ;ENDPOINT: LD50 ;VALUE: 700 mg/kg bw

### Section 13: Disposal Considerations

Dispose through Licensed Disposal Company

### Section 14: Transport Information

**UN No:** UN1789  
**Proper Shipping Name:** HYDROCHLORIC ACID  
**Dangerous Goods Class:** 8  
**Subsidiary risk:** 6  
**Packing Group:** II  
**Hazchem Code:**



### Section 15: Regulatory Information

**HSNO Approval No:** HSR001557  
**Group Standard:**  
**HSNO Classes:** 6.1B, 8.1A, 8.2B, 8.3A, 9.1D, 9.3C

### Section 16: Other Information

**New Zealand National Poison Information Centre (24 hours): 0800 POISON [764 766]**  
**New Zealand Emergency Services: 111**

**For General Information:** John Crombie, Manager, Marketing Chemicals Ltd,  
Phone: +64 (09) 634 3862 / +64 (0)27 473 6008  
Fax : +64 (09) 634 3864

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End of Safety Data Sheet.