100052-2 Sodium (1000µg/mL in 1%HCl)

High-Purity Standards

Catalogue number: 100052-2
Version No: 3.3
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

SECTION 1 IDENTIFICATION

Product Identifier

<table>
<thead>
<tr>
<th>Product name</th>
<th>100052-2 Sodium (1000µg/mL in 1%HCl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>1000µg/mL Sodium in 1% HCl</td>
</tr>
<tr>
<td>Proper shipping name</td>
<td>Hydrochloric acid (contains hydrochloric acid)</td>
</tr>
<tr>
<td>Other means of identification</td>
<td>100052-2</td>
</tr>
</tbody>
</table>

Recommended use of the chemical and restrictions on use

Relevant identified uses
Use according to manufacturer’s directions.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name High-Purity Standards
Address PO Box 41727 SC 29423 United States
Telephone 843-767-7900
Fax 843-767-7906
Website highpuritystandards.com
Email Not Available

Emergency phone number

Association / Organisation INFOTRAC
Emergency telephone numbers 1-800-535-5053
Other emergency telephone numbers 1-352-323-3500

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

<table>
<thead>
<tr>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal Corrosion Category 1, Skin Corrosion/Irritation Category 1A, Serious Eye Damage Category 1</td>
</tr>
</tbody>
</table>

Label elements

<table>
<thead>
<tr>
<th>GHS label elements</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>SIGNAL WORD</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANGER</td>
</tr>
</tbody>
</table>

Hazard statement(s)

<table>
<thead>
<tr>
<th>H290</th>
</tr>
</thead>
<tbody>
<tr>
<td>May be corrosive to metals.</td>
</tr>
<tr>
<td>H314</td>
</tr>
<tr>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H318</td>
</tr>
<tr>
<td>Causes serious eye damage.</td>
</tr>
</tbody>
</table>

Hazard(s) not otherwise specified
Not Applicable
Precautionary statement(s) Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Precautionary statement(s) Response

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Precautionary statement(s) Storage

P405 Store locked up.

Precautionary statement(s) Disposal

P501 Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances
See section below for composition of Mixtures

Mixtures

<table>
<thead>
<tr>
<th>CAS No</th>
<th>%[weight]</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-14-5</td>
<td>0.1 (as Na)</td>
<td>sodium chloride</td>
</tr>
<tr>
<td>7647-01-0</td>
<td>1</td>
<td>hydrochloric acid</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>balance</td>
<td>water</td>
</tr>
</tbody>
</table>

SECTION 4 FIRST-AID MEASURES

Description of first aid measures

Eye Contact

If this product comes in contact with the eyes:
- Immediately hold eyelids apart and flush the eye continuously with 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.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact

If skin or hair contact occurs:
- Immediately flush body and clothes with large amounts of water, using safety shower if available.
- Quickly remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
- Transport to hospital or doctor.

Inhalation

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital or doctor, without delay.
- Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema.
- Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs).
- As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested.
- Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. This must definitively be left to a doctor or person authorised by him/her. (ICSC13719)

Ingestion

- For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Transport to hospital or doctor without delay.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

for corrosives:

BASIC TREATMENT

- Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- Monitor and treat, where necessary, for pulmonary oedema.
- Monitor and treat, where necessary, for shock.

Continued...
Anticipate seizures. Where eyes have been exposed, flush immediately with water and continue to irrigate with normal saline during transport to hospital. DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

Skin burns should be covered with dry, sterile bandages, following decontamination. DO NOT attempt neutralisation as exothermic reaction may occur.

ADVANCED TREATMENT

Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred. Positive pressure ventilation using a bag-valve mask might be of use. Monitor and treat, where necessary, for arrhythmias.

Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications. Drug therapy should be considered for pulmonary oedema. Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.

Treat seizures with diazepam. Proparacaine hydrochloride should be used to assist eye irrigation.

EMERGENCY DEPARTMENT

Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime.

Positive end-expiratory pressure (PEEP)-assisted ventilation may be required for acute parenchymal injury or adult respiratory distress syndrome. Consider endoscopy to evaluate oral injury. Consult a toxicologist as necessary.

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing media

There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility None known.

Special protective equipment and precautions for fire-fighters

Fire Fighting

Fire/Explosion Hazard Non combustible. May emit corrosive fumes.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills

Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.

Clean up all spills immediately.

Major Spills

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling

Avoid all personal contact, including inhalation. DO NOT allow clothing wet with material to stay in contact with skin.

Other information

Store in original containers.

Conditions for safe storage, including any incompatibilities

Suitable container

Lined metal can, lined metal pail can. For low viscosity materials Drums and jerricans must be of the non-removable head type.

Storage incompatibility

Hydrogen chloride

reacts strongly with strong oxidisers (releasing chlorine gas), acetic anhydride, caesium cyanotididecahydrocaborane(2-), ethylidene difluoride, hexafluoridiliscido, metal acetylde, sodium, silicon dioxide, tetraselenium tetranitride, and many organic materials

is incompatible with alkaline materials, acetic anhydride, acetyldies, aliphatic amines, alkanolamines, alkylene oxides, aluminium, aluminium-titanium alloys, aromatic amines, amines, amides, aminoethanol, ammonia, ammonium hydroxide, borides, calcium phosphide, carbides, carbonates, cyanides, chlorosulfonic acid, ethylenediamine, ethyleneimine, ethylchlorhydrid, formaldehyde, isocyanates, metals, metal oxides, metal hydrides, metal acetylides, metal carbides, oleum, organic anhydrides, potassium permanganate, perchloric acid, phosphides, 3-propiolactone, silicides, sulfides, sulfites, sulfuric acid.
Components:
- Uranium phosphide, vinyl acetate, vinylidene fluoride
- Attacks most metals forming flammable hydrogen gas, and some plastics, rubbers and coatings
- Reacts with zinc, brass, galvanized iron, aluminium, copper and copper alloys
- Reacts with mild steel, galvanized steel/zinc producing hydrogen gas which may form an explosive mixture with air.
- Avoid strong bases.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>OCCUPATIONAL EXPOSURE LIMITS (OEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
</tr>
<tr>
<td>US OSHA Permissible Exposure Levels (PELs) - Table Z1</td>
</tr>
<tr>
<td>US ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td>US NIOSH Recommended Exposure Limits (RELs)</td>
</tr>
</tbody>
</table>

EMERGENCY LIMITS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Material name</th>
<th>TEEL-1</th>
<th>TEEL-2</th>
<th>TEEL-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>Chloride; (Chloride(-1); Chloride ions)</td>
<td>1 ppm</td>
<td>2.52 ppm</td>
<td>30 ppm</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>Sodium chloride</td>
<td>11 mg/m³</td>
<td>120 mg/m³</td>
<td>1100 mg/m³</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>Hydrogen chloride; (Hydrochloric acid)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>Deuterohydrochloric acid; (Deuterium chloride)</td>
<td>1.8 ppm</td>
<td>22 ppm</td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

Exposure controls

- **Appropriate engineering controls**: Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard.
- **Personal protection**: 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.
- **Eye and face protection**: See Hand protection below
- **Skin protection**: See Hand protection below
- **Hands/feet protection**: Elbow length PVC gloves
  - When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.
  - The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer.
- **Body protection**: See Other protection below
- **Other protection**: Overalls.
- **Thermal hazards**: Not Available

Respiratory protection

- Type B-P Filter of sufficient capacity

76b-p()

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
</tr>
<tr>
<td>Physical state</td>
</tr>
<tr>
<td>Relative density (Water = 1)</td>
</tr>
<tr>
<td>Odour</td>
</tr>
<tr>
<td>Partition coefficient n-octanol / water</td>
</tr>
<tr>
<td>Odour threshold</td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
</tr>
</tbody>
</table>

Continued...
### SECTION 10 STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH (as supplied)</td>
<td>&lt;2</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Temperature °C</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>boiling range °C</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Flash point °C</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Upper Explosive Limit (%)</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Lower Explosive Limit (%)</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Molecular weight (g/mol)</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Taste</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Surface Tension (dyn/cm or mN/m)</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Solubility in water (g/L)</td>
<td>Miscible</td>
<td></td>
</tr>
<tr>
<td>Vapour pressure (kPa)</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Gas group</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Volatile Component (% vol)</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Vapour density (Air = 1)</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>pH as a solution (%)</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>VOC g/L</td>
<td>Not Available</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 11 TOXICOLOGICAL INFORMATION

#### Information on toxicological effects

**Inhaled**
- The material can cause respiratory irritation in some persons.
- The material has NOT been classified by EC Directives or other classification systems as "harmful by inhalation".
- Hydrogen chloride (HCl) vapour or fumes present a hazard from a single acute exposure.

**Ingestion**
- The material can produce severe chemical burns within the oral cavity and gastrointestinal tract following ingestion.
- The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion".

**Skin Contact**
- The material can produce severe chemical burns following direct contact with the skin.
- Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.
- Open cuts, abraded or irritated skin should not be exposed to this material.
- Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.

**Eye**
- The material can produce severe chemical burns to the eye following direct contact.
- If applied to the eyes, this material causes severe eye damage.

**Chronic**
- Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw.
- Long term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems.
- Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
- 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.

#### Toxicity and Irritation

<table>
<thead>
<tr>
<th>Substance</th>
<th>Toxicity</th>
<th>Irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>100052-2 Sodium (1000µg/mL in 1%HCl)</td>
<td>TOXICITY Not Available</td>
<td>IRRITATION Not Available</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>TOXICITY Dermal (rabbit) LD50: &gt;10000 mg/kg[1]</td>
<td>IRRITATION Eye (rabbit): 10 mg - moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eye (rabbit): 100 mg/24h - moderate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin (rabbit): 500 mg/24h - mild</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>TOXICITY Inhalation (rat) LC50: 3124 ppm/1hr[2]</td>
<td>IRRITATION Eye (rabbit): 5mg/30s - mild</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oral (rat) LD50: 900 mg/kg[2]</td>
</tr>
<tr>
<td>Water</td>
<td>TOXICITY Oral (rat) LD50: &gt;90000 mg/kg[2]</td>
<td>IRRITATION Not Available</td>
</tr>
</tbody>
</table>

Continued...
**SECTION 12 ECOLOGICAL INFORMATION**

### Toxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Endpoint</th>
<th>Test Duration (hr)</th>
<th>Species</th>
<th>Value</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>LC50</td>
<td>96</td>
<td>Fish</td>
<td>620.199mg/L</td>
<td>3</td>
</tr>
<tr>
<td>sodium chloride</td>
<td>EC50</td>
<td>48</td>
<td>Crustacea</td>
<td>402.6mg/L</td>
<td>4</td>
</tr>
<tr>
<td>sodium chloride</td>
<td>EC50</td>
<td>96</td>
<td>Algae or other aquatic plants</td>
<td>2430mg/L</td>
<td>4</td>
</tr>
<tr>
<td>sodium chloride</td>
<td>EC50</td>
<td>384</td>
<td>Crustacea</td>
<td>140.582mg/L</td>
<td>3</td>
</tr>
<tr>
<td>sodium chloride</td>
<td>NOEC</td>
<td>6</td>
<td>Fish</td>
<td>0.001mg/L</td>
<td>4</td>
</tr>
<tr>
<td>hydrochloric acid</td>
<td>LC50</td>
<td>96</td>
<td>Fish</td>
<td>70.057mg/L</td>
<td>3</td>
</tr>
<tr>
<td>hydrochloric acid</td>
<td>EC50</td>
<td>96</td>
<td>Algae or other aquatic plants</td>
<td>344.947mg/L</td>
<td>3</td>
</tr>
<tr>
<td>hydrochloric acid</td>
<td>EC50</td>
<td>9.33</td>
<td>Fish</td>
<td>0.014000mg/L</td>
<td>4</td>
</tr>
<tr>
<td>hydrochloric acid</td>
<td>NOEC</td>
<td>0.08</td>
<td>Fish</td>
<td>1mg/L</td>
<td>4</td>
</tr>
<tr>
<td>water</td>
<td>LC50</td>
<td>96</td>
<td>Fish</td>
<td>897.520mg/L</td>
<td>3</td>
</tr>
<tr>
<td>water</td>
<td>EC50</td>
<td>96</td>
<td>Algae or other aquatic plants</td>
<td>8766.874mg/L</td>
<td>3</td>
</tr>
<tr>
<td>water</td>
<td>EC50</td>
<td>384</td>
<td>Crustacea</td>
<td>199.179mg/L</td>
<td>3</td>
</tr>
</tbody>
</table>

### Persistence and degradability

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence: Water/Soil</th>
<th>Persistence: Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>LOW</td>
<td>LOW</td>
</tr>
<tr>
<td>hydrochloric acid</td>
<td>LOW</td>
<td>LOW</td>
</tr>
<tr>
<td>water</td>
<td>LOW</td>
<td>LOW</td>
</tr>
</tbody>
</table>

### Bioaccumulative potential

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Bioaccumulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>LOW (LogKOW = 0.5392)</td>
</tr>
<tr>
<td>hydrochloric acid</td>
<td>LOW (LogKOW = 0.5392)</td>
</tr>
<tr>
<td>water</td>
<td>LOW (LogKOW = -1.38)</td>
</tr>
</tbody>
</table>

### Mobility in soil

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>LOW (KOC = 14.3)</td>
</tr>
</tbody>
</table>
### SECTION 13 DISPOSAL CONSIDERATIONS

**Waste treatment methods**

<table>
<thead>
<tr>
<th>Product / Packaging disposal</th>
<th>Legislation addressing waste disposal requirements may differ by country, state and/or territory.</th>
<th>DO NOT allow wash water from cleaning or process equipment to enter drains.</th>
<th>Recycle wherever possible.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product / Packaging disposal</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 14 TRANSPORT INFORMATION

#### Labels Required

<table>
<thead>
<tr>
<th>Marine Pollutant</th>
<th>NO</th>
</tr>
</thead>
</table>

#### Land transport (DOT)

- **UN number**: 1789
- **UN proper shipping name**: Hydrochloric acid (contains hydrochloric acid)
- **Transport hazard class(es)**:
  - Class: 8
  - Subrisk: Not Applicable
- **Packing group**: II
- **Environmental hazard**: Not Applicable
- **Special precautions for user**:
  - Hazard Label: 8
  - Special provisions: A3, A6, B3, B15, IB2, N41, T8, TP2

#### Air transport (ICAO-IATA / DGR)

- **UN number**: 1789
- **UN proper shipping name**: Hydrochloric acid (contains hydrochloric acid)
- **Transport hazard class(es)**:
  - ICAO/IATA Class: 8
  - ICAO / IATA Subrisk: Not Applicable
  - ERG Code: 8L
- **Packing group**: II
- **Environmental hazard**: Not Applicable
- **Special precautions for user**
  - Special provisions: A3A803, Cargo Only Packing Instructions 855, Cargo Only Maximum Qty / Pack 30 L, Passenger and Cargo Packing Instructions 851, Passenger and Cargo Maximum Qty / Pack 1 L, Passenger and Cargo Limited Quantity Packing Instructions Y940, Passenger and Cargo Limited Maximum Qty / Pack 0.5 L

#### Sea transport (IMDG-Code / GGVSee)

- **UN number**: 1789
- **UN proper shipping name**: HYDROCHLORIC ACID (contains hydrochloric acid)
- **Transport hazard class(es)**:
  - IMDG Class: 8
  - IMDG Subrisk: Not Applicable
- **Packing group**: II
- **Environmental hazard**: Not Applicable
Transport in bulk according to Annex II of MARPOL and the IBC code
Not Applicable

SECTION 15 REGULATORY INFORMATION

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

SODIUM CHLORIDE(7647-14-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

HYDROCHLORIC ACID(7647-01-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
US - Alaska Limits for Air Contaminants
US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELS)
US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELS)
US - California Permissible Exposure Limits for Chemical Contaminants
US - Hawaii Air Contaminant Limits
US - Idaho - Limits for Air Contaminants
US - Michigan Exposure Limits for Air Contaminants
US - Minnesota Permissible Exposure Limits (PELs)
US - Oregon Permissible Exposure Limits (Z-1)
US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants
US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants

WATER(7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

Federal Regulations
Superfund Amendments and Reauthorization Act of 1986 (SARA)

SECTION 311/312 HAZARD CATEGORIES
Immediate (acute) health hazard Yes
Delayed (chronic) health hazard No
Fire hazard No
Pressure hazard No
Reactivity hazard No

US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

<table>
<thead>
<tr>
<th>Name</th>
<th>Reportable Quantity in Pounds (lb)</th>
<th>Reportable Quantity in kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid</td>
<td>5000</td>
<td>2270</td>
</tr>
</tbody>
</table>

State Regulations
US. CALIFORNIA PROPOSITION 65
None Reported

National Inventory Status
Australia - AICS Y
Canada - DSL Y
Canada - NDSL N (hydrochloric acid; water; sodium chloride)
China - IECSC Y
Europe - EINEC / ELINCS / NLP Y
Japan - ENCS N (water)
Korea - KECI Y
New Zealand - NZIoC Y
Philippines - PICCS Y
USA - TSCA Y

Legend: Y = All ingredients are on the inventory
N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)
Other information

Ingredients with multiple cas numbers

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS No</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>7647-14-5, 14762-51-7, 16887-00-6</td>
</tr>
</tbody>
</table>

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL: No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index

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