



# Product Specification

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## HYDROCHLORIC ACID ULTRAPURE MURIATIC ACID; HYDROGEN CHLORIDE

|                             |                                                        |     |
|-----------------------------|--------------------------------------------------------|-----|
| PRODUCT CODE                | H27815                                                 | HCl |
| SYNONYMS                    | --                                                     |     |
| C.I. NO.                    | --                                                     |     |
| CASR NO.                    | 7647-01-0                                              |     |
| ATOMIC OR MOLECULAR FORMULA | HCl                                                    |     |
| ATOMIC OR MOLECULAR WEIGHT  | 36.46                                                  | HCl |
| PROPERTIES                  | Noncombustible.                                        |     |
| PARAMETER                   | LIMIT                                                  |     |
| Description                 | A clear liquid not more than 10 Hazen units in colour. |     |
| Solubility                  | Miscible with water forming clear solution.            |     |
| Minimum assay (acidimetric) | 34-37% w/w                                             |     |
| MAXIMUM LIMIT OF IMPURITIES |                                                        |     |
| Colour                      | 10 APHA                                                |     |
| Free chlorine (Cl)          | 2 ppm                                                  |     |
| Sulphate (SO <sub>4</sub> ) | 5 ppm                                                  |     |
| Total Phosphorus            | 0.05ppm                                                |     |
| Aluminium (Al)              | 1 ppb                                                  |     |
| Antimony (Sb)               | 0.5 ppb                                                |     |
| Arsenic (As)                | 0.5 ppb                                                |     |
| Barium (Ba)                 | 0.1 ppb                                                |     |
| Beryllium (Be)              | 0.1 ppb                                                |     |
| Bismuth (Bi)                | 0.1 ppb                                                |     |
| Boron (B)                   | 1 ppb                                                  |     |
| Cadmium (Cd)                | 0.1 ppb                                                |     |
| Calcium (Ca)                | 1 ppb                                                  |     |
| Cerium (Ce)                 | 0.1 ppb                                                |     |
| Cesium (Cs)                 | 0.1 ppb                                                |     |
| Chromium (Cr)               | 0.5 ppb                                                |     |
| Cobalt (Co)                 | 0.1 ppb                                                |     |
| Copper (Cu)                 | 0.5 ppb                                                |     |
| Dysprosium (Dy)             | 0.1 ppb                                                |     |
| Erbium (Er)                 | 0.1 ppb                                                |     |
| Europium (Eu)               | 0.1 ppb                                                |     |
| Gadolinium (Gd)             | 0.1 ppb                                                |     |
| Gallium (Ga)                | 0.1 ppb                                                |     |
| Germanium (Ge)              | 0.1 ppb                                                |     |
| Gold (Au)                   | 0.5 ppb                                                |     |
| Hafnium (Hf)                | 0.1 ppb                                                |     |
| Holmium (Ho)                | 0.1 ppb                                                |     |
| Indium (In)                 | 0.1 ppb                                                |     |
| Iron (Fe)                   | 1 ppb                                                  |     |
| Iridium (Ir)                | 0.1 ppb                                                |     |
| Lanthanum (La)              | 0.1 ppb                                                |     |
| Lead (Pb)                   | 0.1 ppb                                                |     |



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|                   |         |
|-------------------|---------|
| Lutetium (Lu)     | 0.1 ppb |
| Magnesium (Mg)    | 0.5 ppb |
| Manganese (Mn)    | 0.1     |
| Mercury (Hg)      | 0.1 ppb |
| Molybdenum (Mo)   | 0.1 ppb |
| Neodymium (Nd)    | 0.1 ppb |
| Nickel (Ni)       | 0.5 ppb |
| Niobium (Nb)      | 0.1 ppb |
| Osmium (Os)       | 0.5 ppb |
| Palladium (Pd)    | 0.5 ppb |
| Platinum (Pt)     | 1 ppb   |
| Potassium (K)     | 0.1 ppb |
| Praseodymium (Pr) | 0.1 ppb |
| Rhenium (Re)      | 0.1 ppb |
| Rhodium (Rh)      | 0.1 ppb |
| Rubidium (Rb)     | 0.1 ppb |
| Ruthenium (Ru)    | 0.1 ppb |
| Samarium (Sm)     | 1 ppb   |
| Scandium (Sc)     | 1 ppb   |
| Selenium (Se)     | 1 ppb   |
| Silver (Ag)       | 1 ppb   |
| Sodium (Na)       | 1 ppb   |
| Strontium (Sr)    | 0.1 ppb |
| Tantalum (Ta)     | 0.1 ppb |
| Tellurium (Te)    | 0.1 ppb |
| Terbium (Tb)      | 0.1 ppb |
| Thallium (Tl)     | 0.1 ppb |
| Thulium (Tm)      | 0.5 ppb |
| Tin (Sn)          | 0.1 ppb |
| Titanium (Ti)     | 0.5 ppb |
| Tungsten (W)      | 0.1 ppb |
| Vanadium (V)      | 1 ppb   |
| Ytterbium (Yb)    | 0.1 ppb |
| Yttrium (Y)       | 0.1 ppb |
| Zinc (Zn)         | 0.5 ppb |
| Zirconium (Zr)    | 0.1 ppb |
| Lithium (Li)      | 0.1 ppb |



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Note(s) : Assay (if applicable) method mentioned.

### DANGER

**Hazard statements:** Toxic if swallowed. May be corrosive to metals. Causes severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.

### Precautionary statements

**Prevention:** Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust or mist.

**Response:** IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment: refer to Label or MSDS. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If on skin or hair: remove/take off immediately all contaminated clothing. Rinse with water/shower. Absorb spillage to prevent material damage.

**Disposal:** Dispose of contents and container in accordance with relevant legislation.

IMDG Code : 8/III

UN No. : 1789

IATA : 8

Hazard Pictogram(s) :-



GHS06



GHS05