



pH - M

Chemical for the Acid-Base pretreatment.

pH - M is chemical for the neutralize pretreatment in the pool. For control moss green to

Physical Appearance in the pool are clear.



Properties of the chemical

Status.....Liquid

Appearance and Odor.....Clear,colorless,pungent irritating odor

pH.....Acid

Specific Gravity.....1.06

Ignition.....Non-Flammable

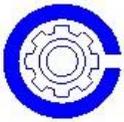
Decline per year.....Very little

Effect the pH of waterLower

Handling and Use.....Easy

Advantages

Used in the production of chlorite, Wastewater treatment, Metal etching, Laboratory , Extract or pure minerals and Chemical for the neutralize pretreatment in the pool.



Handling and Use

pH - M used in conjunction with chemical CHC. If to used CHC to disinfection and control of algae in the pool for a period of time will result is higher pH. To adjust the pH to lower by pH - M until the pH is with in the standard is 7.2 to 7.6.



1. Product and Company Identification

1.1 Product Name	: pH - M
1.2 Structure Formula	: HCL
1.3 Category	: A extremely Corrosive Chemical.
1.4 CAS	: 7647-01-0
1.5 Head Office	: Chainaris Phuket Engineering Co;Ltd. 63/13 Moo 2 T.Vichit , A. Muang Phuket 83000 Tel : 0 7651 3100 Fax : 0 761 3105 Web site : www.chainaris.co.th

2. Composition / Information on Ingredient

Substance	: Hydrochloric acid
Concentration	: 15%

3. Physical / Chemical Properties

3.1 Appearance and Odor	: Clear, colorless, pungent irritating odor
3.2 Other Physical Characteristic:	Soluble in alcohol ether and benzene. Insoluble in hydrocarbon compounds.
3.3 Specific Gravity	: 1.18
3.4 pH	: Acid.



4. Health Hazard Data

Special Precaution : A extremely corrosive chemical.

Health Effect

Routes of Entry : Inhalation, skin,eye and swallow

Hazard : Causes severe burns.

Effect of Short-Term (Acute) Exposure

Inhalation : Cause severe nasal irritation. Sore throat and breathing difficulty.

Skin Contact : Cause severe burn and permanent scarring, burn

Eye Contact : Damage can range from irritating, causing redness. Burns and permanent blindness.

Ingestion : Produce severe burns to mouth and digestive tract. Causes vomiting, swallow difficulty, nausea, diarrhea and death

Effect of Long-Term(Chronic)Exposure

May result dental erosion, dermatitis, bleeding of nose and gums, pneumatitis and pulmonary edema.

5. First Aid Procedure

Skin Contact : Remove contaminated clothing and shoes under running water for at least 15 minutes. Obtain medical attention immediately.

Eye Contact : Flush with running water for at least 15 minutes. Occasionally lifting the eyelids. May rinse with a neutral saline solution. Do not allow the contaminated water into the non-affected eye. Obtain medical attention immediately.

Inhalation : Move victim to fresh air. If breathing is difficult, give oxygen. Do not allow victim to move about unnecessarily. Obtain medical attention immediately.



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Ingestion : Never give anything by mouth if victim is unconscious. Rinse mouth thoroughly with water. Do not induce vomiting. Drink 240 to 300 ml. of water. If milk is available, it may be administered after the water has been given. Obtain medical attention immediately.

6. Precaution for Handling and Use

Handling

Warning : Prevent release of vapor or mist into workplace.

Precaution : When diluting or preparing solution, slowly add acid to water to avoid boiling or splattering. Empty containers may contain residue which is hazardous.

Ventilation : Adequate ventilation should be provided.

Safety Handling : Use smallest possible amount in designated area with adequate ventilation. Prepare appropriate safety measures and protective equipment should be prepared. Keep container tightly closed when not in use and when empty.

Safety Storage : Store in cool, dry and well-ventilated area, out of direct sunlight and away from heat sources. Drums should be vented at least weekly to release internal pressure. Floor should not allow liquid to penetrate. Combustible materials should not be used on floors. Use containers which are securely labeled and protected from damage. Storage tank should be surrounded with dikes. Restrict access to storage area. Post warning signs.

Incompatible Materials: Oxidizing agents, Reducing agents, Strong bases.



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Exposure Controls

Personal Protection : Restrict access to exposure area until completion of clean-up. Wear adequate person protective equipments. Have a well-ventilated system. Do not touch contaminated material. Keep windward side. Avoid inhaling vapour.

Environment Protection : prevent liquid run-off into sewer, water ways.

Spill and Leakage Procedures : Recover spilled Hydrochloric Acid if possible. Contain spill with earth, sand, or absorbent material. Put liquid in suitable, covered, labeled containers. Flush area with water. Use water spray to cool containers and reduce or direct vapors.

7. Control Measure

Engineering Control : Totally enclose processes and personal. Control the condition of process. Normal ventilation is generally adequate. If generated heat or vapor, local exhaust ventilation should be provided.

Respiratory Protection : Chemical cartridge respirator to protect against Hydrogen chloride or gas mask with canister to protect against Hydrogen chloride or self contained breathing apparatus.

Body Protection : Protective clothing.

Hand Protection : Chemical resistant gloves.

Eye Protection : Chemical safety goggles, or glasses. Face shield may be used in properly.



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Other Protection : Provide eyewash fountain and safety shower in work areas. Do not eat or drink in work areas.

Other Protection : Chemical resistant boots, Eyewash fountain and safety shower. Do not eat, drink or smoke in work areas.

8. Water Pollution

Products : Flush area with water. Neutralize with Sodium carbonate or Calcium carbonate. Contaminated absorbent may dispose as the normal garbage.

Empty Containers : Secure landfill.