



MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT & COMPANY IDENTIFICATION:

Product Name: Hydrochloric Acid Solution
(Muriatic Acid)

Trade Name: Same

Product Use:

Boiler Treatment
pH adjustment, water treatment, scale removal

Emergency Phone Number:
1-877-378-7745

Supplier Name & Address:

FLOCHEM LTD.
6986 Wellington Rd. 124
Guelph, Ontario, N1H 6J4

Effective Date: January 7, 2015

SECTION 2 - COMPOSITION/INFORMATION INGREDIENTS:

	<u>% (w/w)</u>	<u>CAS</u>	<u>Baumé</u>
Hydrogen Chloride	26 -37	7647-01-0	18 - 23°
Water	63 -74	7732-18-5	

SECTION 3 - HAZARDS IDENTIFICATION:

(See Section 11 for Toxicological Information)

SECTION 4 - FIRST AID:

DANGER Corrosive! Contact can cause eye burns and tissue damage. Product fumes in air – corrosive to eyes and respiratory tract.

Eyes: If product comes in contact with eyes, immediately flush with cool running water for at least 15 minutes, holding eyelids open. DO NOT try to neutralize the acid with chemical agents. Seek immediate medical attention.

Skin: If product comes in contact with skin, rinse with cool running water. Immediately remove all contaminated clothing under a safety shower and launder prior to reuse. Flush all affected areas with large amounts of water for at least 15 minutes. If irritation persists, seek immediate medical attention.

Ingestion: If product is ingested, have victim drink water. **DO NOT** induce vomiting. Seek immediate medical attention. **Contact local poison control center.**

Inhalation:

Remove from vapours immediately. If vapours are inhaled, irritation can occur, remove victim to fresh air, and administer oxygen. Do not attempt mouth-to-mouth resuscitation. If breathing has stopped administer artificial respiration.

SECTION 5 - FIRE FIGHTING MEASURES:

Flammable Properties: Product is not flammable, but Hydrochloric Acid reacts with metals with rapid evolution of Hydrogen which is flammable and explosive in air.

Flash Point: N/A **Decomposition Products:** Chlorine & Hydrogen

Flammable Limits: Material is non-combustible.

Extinguishing Media: Use extinguishing material adequate for acids and appropriate for the burning fire.

Hazardous Combustion Products: May generate flammable, potentially explosive hydrogen gas on contact with most metals. Explosive concentrations of hydrogen may accumulate inside metal equipment. Hydrochloric Acid fumes may be released from heating under fire conditions.

Fire Fighting Instructions: Keep personnel removed and upwind of fire. Use water spray to cool containers and control vapours.

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

Evacuate personnel. Keep upwind of released material. Wear proper personal protective equipment. Respiratory equipment is required where vapours are present. Stop leak at source. Contain released material to stop spreading. Neutralize with Lime or Soda Ash.

Isolate spill area and ensure clean up personnel are suited up for removal. Remove all auto-ignition sources (sparks, flames), ventilate area. Cover small spills with dry earth and pile into covered plastic containers for waste disposal. For larger spills prevent entry into sewers, dike spill with sand or earth. Transfer absorbed material into chemical waste container. Use soda ash or lime to absorb spills. Consult local authorities for further instructions.

SECTION 7 - HANDLING & STORAGE:

Handling: Avoid adding water to this acid. Slowly add acid to water to prevent spattering. Do not get in eyes, on skin or clothing. Avoid breathing vapours. Always wear all recommended personal protective equipment when handling Hydrochloric Acid (impervious clothing, footwear, gloves, chemical goggles and full-face respirator and face shield). Take adequate precautions to prevent direct personal contact. Ensure adequate ventilation in working area. Ensure Eyewash Station and Safety shower are in close proximity to work area.

Storage: Keep containers tightly closed. Store in a cool, dry, well-ventilated place. Very corrosive material. Storage containers should be vented, and stored in a cool, dry area out of direct sunlight and not subject to extreme heat or cold. Keep away from ignition sources.

SECTION 8 - EXPOSURE CONTROLS:

Ensure adequate ventilation. Personnel handling this product should wear adequate personal protective equipment as noted in Section 7. Situate near Eyewash Station and Safety Shower.

SECTION 9 - PHYSICAL PROPERTIES:

Colour:	Clear, white liquid.	Odour:	Pungent
Freezing Point:	-12°F to -63°F	Density:	9.48-9.61
Specific Gravity:	1.13 – 1.16	Water Solubility:	Miscible

SECTION 10 - STABILITY & REACTIVITY:

Hazardous Decomposition Products: when heated, emits toxic hydrogen chloride fumes.

Stability: Stable under conditions of normal use. **Hazardous Polymerization:** Will not occur.

Conditions to Avoid: Keep away from heat, sparks or flames. **DO NOT** store or mix with incompatible materials. Incompatible with most metals, alkalis, oxidizers, and hypochlorites. Heat can cause evolution of gaseous Hydrogen Chloride.

SECTION 11 - TOXICOLOGICAL INFORMATION:

Product is extremely corrosive. Can cause severe eye and skin damage and burns. Harmful if vapours are inhaled, causing severe irritation of the respiratory tract. Vapours and mist, if inhaled can cause severe nasal and throat irritation and shortness of breath.

If product comes in contact with skin, it can cause deep burns, redness and severe pain. Contact with eyes can cause cornea damage, which could result in blindness.

SECTION 12 - ECOLOGICAL CONSIDERATIONS:

High concentrations of Hydrochloric have been shown to be detrimental to aquatic life. Product released into a body of water will kill fish and aquatic life.

SECTION 13- DISPOSAL CONSIDERATIONS:

Do not dispose of in garbage, or pour into sewer or waterways. Containers should be disposed of according to all applicable laws and regulations.

SECTION 14 - TRANSPORT INFORMATION:

TDG Classification: Hydrochloric Acid, Class 8, PIN# UN1789, Packing Group II.

SECTION 15 - REGULATORY INFORMATION:

WHMIS Classification: E

On the DSL List.

SECTION 16 - OTHER INFORMATION:

Disclaimer:

The information contained herein is based on data considered to the best of our knowledge to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof.

Prepared by: **FLOCHEM LTD.**
Regulatory Affairs Manager, *Sandra Schuett*
Phone: (519) 763-5441
e-mail: solutions@flochem.com
website: www.flochem.com

Last Updated: January 7, 2015

- END OF MSDS -



RESPONSIBLE DISTRIBUTION
— OUR COMMITMENT —