

Material Safety Data Sheet

Number: **DMN0101**

Product Name: **Muriatic Acid 20° Bé**

Inorganic acid. (Hydrochloric Acid).

Revised: 4/12/11

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Section 2 - Composition / Information on Hazardous Ingredients

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Percent</u>	<u>Carcinogen</u>
Hydrogen chloride	7647-01-0	31%	No

Section 3 - Hazards Identification

Emergency Overview: Liquid is corrosive to all body parts. Excessive inhalation of vapors causes irritation. Product is water based and does not burn. Contact with reactive metals will form hydrogen gas. Product has a low pH and more than 1 quart should not be allowed into sewers (sanitary or storm) without neutralizing. Will release chlorine gas if mixed with bleach. A clear liquid with an acidic, irritating odor.

Health Hazards: Corrosive

Physical Hazards: Reactive

Primary Routes of Entry: Through Skin Inhalation Ingestion

Potential Health Effects:

Eyes - causes severe damage and may cause blindness very rapidly.

Skin - causes irritation, redness at first and with continued contact serious burns and permanent damage.

Swallowing - causes severe damage to mucous membranes and possibly deep tissue damage and gastrointestinal burns.

Breathing - inhalation of vapors causes irritation of the mouth, nose, throat and respiratory passages. Inhalation of mist and prolonged or excessive inhalation of vapors may cause severe damage to the respiratory system.

Section 4 - First Aid Measures

Eye Contact: Immediately flush eyes with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention immediately.

Skin Contact: Flush exposed skin with running water for 15 minutes. Remove contaminated clothing and shoes. If redness, irritation or other symptoms exist after flushing, get medical attention immediately. Wash clothing before reuse. Throw away contaminated shoes.

Inhalation: Move the affected person to fresh air. If irritation, coughing or other symptoms persist, get medical attention immediately.

Ingestion: If the product is swallowed, do NOT induce vomiting. If affected person is conscious, give a glass of water or milk to drink. Treat for shock by keeping the person warm and quiet. Get medical attention immediately.

Section 5 - Fire-Fighting Measures

Flash Point: None (ASTM D-56 closed cup)

Lower Explosive Limit: Not Applicable

Upper Explosive Limit: Not Applicable

Extinguishing Media: Any

Special Fire Fighting Procedures: None.

Unusual Fire And Explosion Hazards: Contact with reactive metals will form hydrogen gas.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Use adequate personal protective equipment. Clean up small spills with a rag or mop. Wash the area with an alkaline detergent or a 50% solution of baking soda. Spills of 1 quart or less can be washed to the sanitary sewer with plenty of water. Larger spills should be diked to prevent spreading and then collected into clean pails or drums.

Section 7 - Handling and Storage

Empty containers retain product residue and may be hazardous. Observe all precautions given in this data sheet and on label. Keep container closed.

Adding acid to water generates heat. Add slowly. Never add water to acid.

If this product contacts bleach or a cleaner containing bleach, it could produce a dangerous gas (chlorine). If your facility uses bleach, or a cleaner containing bleach, look at the MSDS on the bleach product now, to learn what to do if chlorine is accidentally produced. Your facility should decide upon the appropriate emergency action plan for accidental release of chlorine as a part of your emergency preparedness plan. Contact Damon Industries if more information is needed.

Section 8 - Exposure Controls / Personal Protection

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Percent</u>	<u>TWA(source)</u>	<u>STEL</u>	<u>Ceiling</u>
Hydrogen chloride	7647-01-0	31%	-	-	5 ppm(1,2,3,4)

IDLH is 50ppm. (Immediately dangerous to life and health)
(1)=OSHA (2)=NIOSH (3)=ACGIH (4)=CANADA TWA=8 hr Time Weighted Average STEL=15 minute TWA Ceiling=Instantaneous

Ventilation: Good room ventilation for small and short-term use. Use mechanical exhaust for larger and long-term uses to maintain airborne concentrations below the exposure limits.

Respiratory Protection: If the exposure limit will be exceeded or fumes are irritating during use, wear a NIOSH approved respirator with an acid vapor cartridge.

Protective Gloves: Use rubber or latex gloves. Do not use disposable latex gloves. Disposable Nitrile gloves are good.

Eye Protection: Wear safety glasses with side shields or chemical goggles or face shield.

Other Protective Equipment: If splashing is likely to occur wear aprons, protective clothing or boots as the situation calls for. Nylon clothing will be melted and ruined by contact.

Section 9 - Physical and Chemical Properties

Boiling Point: 230° F.	Vapor Pressure: 28 mm Hg @ 68° F.
Specific Gravity: 1.16	Vapor Density: 1.2 (Air = 1)
Percent Volatiles: 100%	Evaporation Rate: 2.0 (Water = 1)
Solubility In Water: Complete	pH: concentrate 1.0 ± 0.5
Appearance and Odor: Clear to slightly brown liquid with pungent acidic, irritating odor.	

Section 10 - Stability and Reactivity

Incompatibility: Alkalis, bleach, oxidizers, reactive metals. **Hazardous Decomposition Products:** None

Section 11 - Toxicological Information

Target Organs: None.

Section 12 - Ecological Information

Do not dispose of in the environment.

Section 13 - Disposal Considerations

Waste Disposal Method: Up to 1 quart may be washed to the sanitary sewer with a large amount of water. Larger amounts should be neutralized to within pH limits of your waste water system and then disposed of in the sanitary sewer.

Section 14 - Transport Information

D.O.T. Hazard Class: Hydrochloric Acid, Solution, 8, UN 1789, P.G. II

Section 15 - Regulatory Information

The components of this product are on the TSCA inventory of chemical substances.

Section 313 Supplier Notification: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and CFR 372.

<u>Chemical Name</u>	<u>C.A.S. No.</u>	<u>% By Weight</u>	<u>Lbs./Gallon</u>
Hydrogen chloride	7647-01-0	31%	3.0

Section 16 - Other Information

NFPA: H:3 F:0 I:1 **HMIS® III:** H:3 F:0 P:2 These ratings estimates are to be used only with a fully implemented training program in the workplace. NFPA® is a mark registered by the NFPA. HMIS® is a mark registered by the NPCA.

Replaces sheet dated 5/16/01.

The information accumulated herein is believed to be accurate but is not warranted to be. Recipients are advised to confirm in advance that the information is current, applicable, and suitable to their circumstances.