



Vista Chemical Company  
P. O. Box 19029  
Houston, Texas 77224-9029



**MURIATIC ACID 20° BAUMÉ**

MSDS CODE: MA20BALT  
REVISION: 01/94

REVISION DATE: 12/05/94  
PRINT DATE: 01/25/96

# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: MURIATIC ACID 20° BAUMÉ  
SYNONYMS: Hydrochloric Acid

MANUFACTURER: Vista Chemical Company  
ADDRESS: 900 Threadneedle  
Houston, TX 77079

TELEPHONE NUMBERS: CHEMTREC - Transportation Emergency (24-hr) (800) 424-9300  
Other Emergencies (24-hrs) (318) 494-5142  
MSDS and Product Information (8:00am-4:30pm CST) (713) 588-3491  
Health and Safety Information (7:30am-5:00pm CST) (410) 354-5975

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS Number</u>	<u>Weight%</u>
Hydrochloric Acid	7647-01-0	31.5
Water	7732-18-5	68.5

See Section 8 for Exposure Guidelines and Section 15 for OSHA Classification

## 3. HAZARDS IDENTIFICATION

### Emergency Overview

Clear, nearly colorless liquid. Strong, irritating odor.

**HEALTH HAZARD: DANGER! CAUSES EYE, SKIN, AND RESPIRATORY TRACT BURNS!** Liquid contact to eyes and skin will cause burning, strong irritation, and tissue damage. May cause blindness or be fatal with skin contact or ingestion. Inhalation of vapor may cause coughing, choking and result in damage to mucous membranes and other pulmonary effects.



## MURIATIC ACID 20° BAUMÉ

MSDS CODE: MA20BALT  
REVISION: 01/94

REVISION DATE: 12/05/94  
PRINT DATE: 01/25/96

### Potential Health Effects

#### EYES:

Corrosive. Liquid contact will cause burning, strong irritation and tissue damage. Irreversible damage may occur. May cause blindness. Chronic overexposure may cause ulceration of mucous membranes.

#### SKIN:

Corrosive. Liquid contact will cause burning, strong irritation and tissue damage. Irreversible damage may occur. May be fatal. Chronic overexposure may cause ulceration of skin.

#### INHALATION:

Strong respiratory tract irritant. Inhalation may cause coughing and choking, and result in damage to mucous membranes and other pulmonary effects. People with preexisting respiratory conditions, such as asthma, may be especially sensitive to these effects. Exposure may be fatal depending on the magnitude and duration of exposure. Excess cancer risks have been reported for workers exposed to hydrochloric acid. However, the International Agency for Research on Cancer has reviewed these and additional studies and found that they provide inadequate evidence for carcinogenicity in man or animals.

#### INGESTION:

Corrosive to tissue on contact. May be fatal. Chronic overexposure may damage teeth and cause ulceration of mucous membranes.

(See Section 11 for Toxicological Information)

## 4. FIRST AID MEASURES

#### EYES:

Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately. Call a physician.

#### SKIN:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse.

#### INHALATION:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician immediately. (Medical Toxicology, 1988).

#### INGESTION:

DO NOT INDUCE VOMITING. Give victim a glass of water. Call a physician immediately.



## MURIATIC ACID 20° BAUMÉ

MSDS CODE: MA20BALT  
REVISION: 01/94

REVISION DATE: 12/05/94  
PRINT DATE: 01/25/96

### 5. FIRE FIGHTING MEASURES

#### Flammable Properties

FLASH POINT / METHOD:  
Not applicable.

AUTOIGNITION TEMPERATURE:  
Not applicable.

FLAMMABLE LIMITS IN AIR % BY VOLUME:  
LOWER: Not applicable.  
UPPER: Not applicable.

#### FIRE AND EXPLOSION HAZARD:

None expected; however, explosive gases can be produced by the reaction of hydrochloric acid with metals.

#### EXTINGUISHING MEDIA:

Water (flood with water), dry chemical, CO<sub>2</sub>, or "alcohol" foam.

#### FIRE FIGHTING INSTRUCTIONS:

Hydrochloric acid solutions do not burn. Use water spray to cool fire-exposed containers of HCl to prevent ruptures. Use self-contained breathing apparatus (SCBA) and structural firefighters protective clothing if fighting fire.

### 6. ACCIDENTAL RELEASE MEASURES

#### STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK:

Absorb spill with inert material, then place in a chemical waste container. Neutralize with soda ash or lime. For large spills, dike for later disposal. Dispose of only in accordance with local, state, and federal regulations.

#### CERCLA HAZARDOUS SUBSTANCE:

<u>Component</u>	<u>CERCLA RQ</u>	<u>Maximum Wt. %</u>
Hydrochloric Acid	5,000 lbs.	32



## MURIATIC ACID 20° BAUMÉ

MSDS CODE: MA20BALT  
REVISION: 01/94

REVISION DATE: 12/05/94  
PRINT DATE: 01/25/96

### 7. HANDLING AND STORAGE

**ELECTROSTATIC ACCUMMULATION HAZARD:**

None

**USUAL SHIPPING CONTAINERS:**

DOT approved tank cars, tank trucks and drums as specified in 49 CFR.

**STORAGE / TRANSPORT TEMPERATURE:**

Ambient.

**STORAGE / TRANSPORT PRESSURE:**

Ambient

**LOAD / UNLOAD TEMPERATURE:**

Ambient.

**STORAGE AND HANDLING MATERIALS:**

Polyester-coated steel, rubber (Hypalon), and teflon are suitable.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls**

Adequate ventilation to reduce levels of air contaminants below that which may cause personnel injury or illness. (See exposure guidelines of this section.)

**Personal Protective Equipment**

**EYES:**

Chemical goggles or safety shield. Where splashing is possible, wear full-face shield.

**SKIN:**

Full protective acid-resistant clothing, boots, and gloves to prevent any contact with this material.

**RESPIRATORY PROTECTION:**

NIOSH approved acid-gas air purifying canister, or air-supplied equipment.



## MURIATIC ACID 20° BAUMÉ

MSDS CODE: MA20BALT  
REVISION: 01/94

REVISION DATE: 12/05/94  
PRINT DATE: 01/25/96

### Exposure Guidelines:

<u>Component</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Hydrochloric Acid	CEILING: 5 ppm TWA	CEILING: 5 ppm TWA

PEL = Permissible Exposure Limits  
TLV = Threshold Limit Value

TWA = Time Weighted Average (8 hr.)  
STEL = Short Term Exposure Limit (15 min.)

### Carcinogenicity

No carcinogenic ingredients.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:**  
Clear, nearly colorless liquid.

**VISCOSITY:**  
1.484 - 1.551 cSt @ 68°F / 20°C

**ODOR:**  
Strong, irritating odor.

**PHYSICAL STATE:**  
Liquid.

**VAPOR PRESSURE (mm Hg.):**  
33 @ 77°F/25°C

**BOILING POINT:**  
Approximately 185°F/85°C

**VAPOR DENSITY (Air = 1):**  
1 - 2

**MELTING POINT:**  
Approximately -47°F (-44°C)

**SOLUBILITY IN WATER:**  
Miscible.

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):**  
1.16 @ 70°F / 21°C

## 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:**  
Contact with metals, metal oxides, hydroxides, amines, carbonates, and other alkaline metals.

**INCOMPATIBILITY WITH OTHER MATERIALS:**  
Highly corrosive to many materials.

**HAZARDOUS DECOMPOSITION PRODUCTS:**  
Hydrogen gas formed on contact with most metals. Hydrochloric acid vapors emitted when heated. Chlorine gas may be formed by electrolysis or oxidation.



## MURIATIC ACID 20° BAUMÉ

MSDS CODE: MA20BALT  
REVISION: 01/94

REVISION DATE: 12/05/94  
PRINT DATE: 01/25/96

### HAZARDOUS POLYMERIZATION:

None.

## 11. TOXICOLOGICAL INFORMATION

### EYES:

CORROSIVE - May cause permanent damage.

### SKIN:

CORROSIVE - May cause permanent damage.

Acute Dermal LD<sub>50</sub> (Rabbits): >5,000 mg/kg.

### INHALATION:

LC<sub>50</sub> (Rats): 4,700 ppm (30 minute exposure)

LC<sub>50</sub> (Mice): 2,600 ppm (30 minute exposure)

Exposure of baboons of up to 10,000 ppm hydrogen chloride for 15 minutes did not exhibit any lasting pulmonary effects at three days or three months later. 2,600 ppm (30 minute exposure)

### INGESTION:

Acute Oral LD<sub>50</sub> (Rabbits): 900 mg/kg.

Acute Oral LD<sub>50</sub> (Rat): 700 mg/kg.

## 12. ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION:

Not available. (pH dependent.)

### CHEMICAL FATE INFORMATION:

Not applicable. Material is already in a completely mineralized state.

## 13. DISPOSAL CONSIDERATIONS

### SPECIAL INSTRUCTIONS:

Absorb spill with inert material, then place in a chemical waste container. Neutralize with soda ash or lime. For large spills, dike for later disposal. Dispose of only in accordance with local, state, and federal regulations.



## MURIATIC ACID 20° BAUMÉ

MSDS CODE: MA20BALT  
REVISION: 01/94

REVISION DATE: 12/05/94  
PRINT DATE: 01/25/96

### WASTE CLASSIFICATION:

The product has the RCRA characteristic of corrosivity and if discarded in its purchased form would have the EPA Hazardous Waste Number of D002 (pH <2). Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations and mixtures may change the classification to non-hazardous or hazardous for reasons other than, or in addition to, corrosivity.

### EMPTY CONTAINERS:

Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

(See Section 6 for CERCLA Reporting Requirements)

## 14. TRANSPORT INFORMATION

### DOT DESCRIPTION:

This product is regulated as a hazardous material as defined by the Department of Transportation.

**PROPER SHIPPING NAME:** Hydrochloric Acid, Solution  
**HAZARD CLASS:** 8  
**IDENTIFICATION NUMBER:** UN 1789  
**PACKING GROUP:** II  
**ADDITIONAL INFORMATION:** RQ (Hydrochloric Acid) = 5,000 lbs.

### ICAO / IATA DESCRIPTION:

This product is regulated as a dangerous good as defined by IATA for air transportation.

**PROPER SHIPPING NAME:** Hydrochloric Acid, Solution  
**HAZARD CLASS:** 8  
**UN NUMBER:** UN 1789  
**PACKING GROUP:** II  
**ADDITIONAL INFORMATION:** RQ (Hydrochloric Acid) = 5,000 lbs.

### IMO DESCRIPTION (IMDG CODE):

This product is regulated as a dangerous good as defined by the IMDG Code for marine transport.

**PROPER SHIPPING NAME:** Hydrochloric Acid, Solution  
**HAZARD CLASS:** Class 8  
**IDENTIFICATION NUMBER:** UN 1789  
**PACKING GROUP:** II  
**ADDITIONAL INFORMATION:** RQ (Hydrochloric Acid) = 5,000 lbs.



## MURIATIC ACID 20° BAUMÉ

MSDS CODE: MA20BALT  
REVISION: 01/94

REVISION DATE: 12/05/94  
PRINT DATE: 01/25/96

### 15. REGULATORY INFORMATION

#### U.S. Federal Regulations

OSHA HAZARD COMMUNICATION STANDARD CLASSIFICATION:  
Corrosive as defined by the OSHA Hazardous Communication Standard.

TSCA INVENTORY LISTING:

<u>Component</u>	<u>CAS Number</u>
Hydrochloric Acid	7647-01-0

SARA 302 STATUS:

<u>Component</u>	<u>CAS Number</u>	<u>Maximum Wt. %</u>
------------------	-------------------	----------------------

Contains no chemicals subject to SARA 302 reporting.

SARA 311/312 CLASSIFICATION:

SARA 311/312 "Immediate (acute) health hazard".

SARA 313 CHEMICALS:

<u>Component</u>	<u>CAS Number</u>	<u>Maximum Wt. %</u>
Hydrochloric Acid	7647-01-0	32

(See Section 6 for CERCLA Reporting Requirements.)

#### International Regulations

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) CLASSIFICATION:

Class E: Corrosive material.

CANADIAN DOMESTIC SUBSTANCE LIST (DSL) INVENTORY LISTING:

<u>Chemical Name</u>	<u>CAS Number</u>
Hydrochloric Acid	7647-01-0





## MURIATIC ACID 20° BAUMÉ

MSDS CODE: MA20BALT  
REVISION: 01/94

REVISION DATE: 12/05/94  
PRINT DATE: 01/25/96

### EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS) LISTING:

<u>Chemical Name</u>	<u>EINECS Number</u>
Hydrochloric Acid	2315957

### JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) INVENTORY LISTING:

<u>Chemical Name</u>	<u>SECTION STRUCTURE #</u>
Hydrogen Chloride	1-324

### AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) LISTING:

<u>Chemical Name</u>	<u>CAS Number</u>
Hydrochloric Acid	7647-01-0

### State Regulations

#### CALIFORNIA SAFE DRINKING WATER ACT (PROP 65) LISTING:

<u>Component</u>	<u>CAS Number</u>
------------------	-------------------

\*\*No ingredients listed in this section\*\*

## 16. OTHER INFORMATION

<u>Hazard Ratings</u>	<u>NFPA</u>	<u>HMIS</u>
HEALTH:	3	3
FLAMMABILITY:	0	0
REACTIVITY:	0	0



Vista Chemical Company  
P. O. Box 19029  
Houston, Texas 77224-9029

# VISTA

## MURIATIC ACID 20° BAUMÉ

MSDS CODE: MA20BALT  
REVISION: 01/94

REVISION DATE: 12/05/94  
PRINT DATE: 01/25/96

*THE DATA AND INFORMATION CONTAINED HEREIN ARE BEING FURNISHED FOR INFORMATIONAL PURPOSES ONLY, UPON THE EXPRESS CONDITION THAT EACH CUSTOMER SHALL MAKE ITS OWN ASSESSMENT OF APPROPRIATE USE AND APPROPRIATE SHIPPING, TRANSFER AND STORAGE MATERIALS AND PROCEDURES FOR VISTA CHEMICAL COMPANY'S PRODUCTS. ALTHOUGH BASED ON INFORMATION SOURCES WHICH VISTA CONSIDERS ACCURATE AND RELIABLE, VISTA MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THE VALIDITY OF THIS INFORMATION, THE INFORMATION SOURCES UPON WHICH THE SAME ARE BASED, OR THE RESULTS TO BE OBTAINED, AND EXPRESSLY DISCLAIMS LIABILITIES FOR DAMAGES OR INJURIES RESULTING FROM THE USE THEREOF.*

PREPARED BY: Vista Safety, Health and Environmental Department  
PHONE NUMBER: (713) 588-3491





117 E. FREDERICK STREET  
P.O. BOX 642  
BINGHAMTON, N.Y. 13902  
PHONE (607) 772-8784

RECEIVED-SCSD  
ACCOUNTS PAYABLE  
96 MAY 17 AM 8:27

May 9, 1996

Huntington School  
400 Sunny Crest Road  
Syracuse, NY

Dear Customer:

Enclosed are Material Safety Data Sheet(s) for products you recently received from Amrex Chemical Co. Inc. Please take the time to familiarize yourself with each Material Safety Data Sheet, paying particular attention to the health and hazard information as well as the emergency and first aid procedures. This information must be distributed to all applicable employees, agents, contractor, customers, and any others who you can reasonably foresee handling these products, as required by OSHA's Hazard Communication Standard (29CFR 1910.1200).

The information contained in these Material Safety Data Sheets is based on the best information currently available to the manufacturer of the product. The statements contained in these sheets are offered for informational purposes only and are intended to be followed only by persons having related technical skills at their own discretion and risk. Since conditions and manner of use are outside of our control, we make no warranties, express or implied, and no liability in connection with any use of this information.

We at Amrex Chemical Co. Inc. are dedicated to the safe, efficient handling of all our products, and hope the enclosed information will help lead to a safe and accident-free working environment with proper and adequate precautions being taken to protect against all actual or potential health and environmental hazards.

Should you require any additional information, please feel free to contact us.

Sincerely,

Pamela Rexer-Rood  
Director of Safety & Regulatory Affairs

Enclosures: Material Safety Data Sheet(s) for:  
Hydrochloric Acid, Solution



117 E. FREDERICK STREET  
P.O. BOX 642  
BINGHAMTON, N.Y. 13902  
PHONE (607) 772-8784

PLEASE SIGN AND RETURN TO US AS SOON AS POSSIBLE.

This will acknowledge receipt of Material Safety Data Sheet(s) covering the following product(s) purchased from Amrex Chemical Co. Inc.:

Hydrochloric Acid, Solution

Date: 5/9/96

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Company Name: Huntington School

Address: 400 Sunny Crest Road

Syracuse, NY

Phone: \_\_\_\_\_