

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements

U.S. Department of Labor

Occupation Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY

RC-39 (110072)

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufactured For: Beaver Research Company		Emergency Telephone Number 1-800-255-3924 (Chem-Tel)
Address (Number, Street, City, State, and ZIP Code) 3700 E. Kilgore Road, Portage, MI 49002		Telephone Number For Information 269-382-0133
HMIS RATINGS:	Health: 3	Date Prepared 07/12/01
	Flammability: 0	Signature of Preparer (optional)
Reactivity: 0		
Personal Protection: D		

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	CAS No.	TLV	Carcinogen	% (optional)
Hydrochloric Acid (Muriatic Acid)	7647-01-0	5 ppm (ceiling) (vapor)	no	>25%

Reportable for SARA Title III, S.313 (Form R): Hydrochloric Acid.

Section III - Physical/Chemical Characteristics

Boiling Point	185°F	Specific Gravity (H ₂ O = 1)	1.14
Vapor Pressure (mm Hg)	N/A	Melting Point	-50°F
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	pH	Viscosity, Cp @ 25°C: A-4 Gardner	
Complete	Total VOC	None	
Appearance and Odor	Dark brown liquid, acid odor.		

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
None	N/A	N/A	N/A
Extinguishing Media	N/A (Product is non-flammable)		
Special Fire Fighting Procedures	Avoid skin and eye contact, and breathing of acid vapors. Wear head and body protection and HCl respirator if exposure to liquid is likely.		
Unusual Fire and Explosion Hazards	N/A		

Section V - Reactivity Data

Stability	Unstable	Conditions to Avoid	None
	Stable		
Incompatibility (Materials to Avoid)	Strong alkalis, materials not resistant to strong acids, active metals (zinc, aluminum, magnesium, etc.)		
Hazardous Decomposition or Byproducts	Hydrogen chloride vapors. Contact with active metals can release flammable hydrogen gas.		
Hazardous Polymerization	May Occur	Conditions to Avoid	None
	Will Not Occur		

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Yes

Health Hazards (Acute and Chronic)

Inhalation: Breathing of vapor can cause respiratory irritation and inflammation. Breathing of mist or liquid can cause burns. **Skin:** Corrosive. Causes irritation and burns. **Eyes:** Corrosive. Causes eye damage.

Ingestion: Corrosive. Causes irritation and burning in mouth and throat. Avoid swallowing.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	N/A	N/A	N/A

Signs and Symptoms of Exposure

See above "Health Hazards".

Medical Conditions Generally Aggravated by Exposure

Over exposure to product has the following effects: Inhalation of vapors may cause pulmonary edema collapse of circulatory system and damage to the upper respiratory system and collapse. Inhalation may cause coughing, throat burning, choking, bronchitis and difficult breathing. Ingestion is harmful and may be fatal. Ingestion may cause severe burns of mouth, esophagus, throat and stomach. It could cause nausea and vomiting.

Emergency and First Aid Procedure

Inhalation: Remove to fresh air. Give artificial respiration or oxygen if needed. Get prompt medical attention. **Skin:** Remove contaminated clothing. Flush skin thoroughly with water for 15 minutes. Get medical attention if burns persist. **Eyes:** Flush immediately with water for 15 minutes. Get prompt medical attention. **Ingestion:** Drink lots of water or, preferably, milk. Get medical attention if effects persist. Do not induce vomiting. IN ALL CASES: Get prompt medical attention if affects persist.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled

Small spills can be flushed into sewers or into ground with copious amounts of water or taken up with absorbent material. Larger spills should be contained by diking or otherwise and held for collection and/or reuse, or for neutralization with alkali before collection and disposal. Personnel should use eye and skin protection, and respirator if needed.

Waste Disposal Method

If neutralized, may be disposed in sewers if local regulations permit. Otherwise, send to licensed treatment and disposal facility. As supplied, this product is a RCRA hazardous waste.

Precautions to be Taken in Handling and Storage

Check daily for any leaks from containers, vessels, pumps, and piping. Have water hoses and alkali (caustic soda, lime, etc.) convenient. Only use containers and equipment designed for acid service.

Other Precautions

Rinse empty containers well before handling and disposal. Areas of use and storage should be ventilated adequately to reduce vapors below odor level.

Section VIII - Control Measures

Respiratory Protection (Specify Type)

Wear approved HCl vapor/mist respirator if exposure is likely.

Ventilation	Local Exhaust	Yes	Special	N/A
	Mechanical(General)	N/A	Other	N/A

Protective Gloves

Wear acid-resistant protective gloves.

Eye Protection

Wear splash-proof goggles.

Other Protective Clothing or Equipment

Wear acid-resistant boots and clothing.

Work/Hygienic Practices

Provide convenient safety showers and eyewash stations.

The information herein has been compiled from sources believed to be reliable and is accurate to the best of our knowledge. However, Beaver Research Company cannot give any guarantees regarding information from other sources, and expressly does not make any warranties, nor assumes any liability for its use.