

SAFETY DATA SHEET
Klean-Strip Green Muriatic Acid

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Klean-Strip Green Muriatic Acid
Company Name: W. M. Barr
2105 Channel Avenue
Memphis, TN 38113
Phone Number: (901)775-0100
Web site address: www.wmbarr.com
Emergency Contact: 3E 24 Hour Emergency Contact (800)451-8346
Information: W.M. Barr Customer Service (800)398-3892
Synonyms: GKGM75006

Synonyms for muriatic acid: hydrochloric acid solution, hydrogen chloride, aqueous hydrogen chloride

2. HAZARDS IDENTIFICATION

Skin Corrosion/Irritation, Category 1B

Target Organ Systemic Toxicity (single exposure), Category 3



GHS Signal Word: Danger

GHS Hazard Phrases: H314: Causes severe skin burns and eye damage.
H335: May cause respiratory irritation.

GHS Precaution Phrases: P260: Do not breathe gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P261: Avoid breathing gas/mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.

GHS Response Phrases: P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P363: Wash contaminated clothing before reuse.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310: Immediately call a POISON CENTER/doctor.
P321: Specific treatment see label.
P312: Call a POISON CENTER/doctor if you feel unwell.

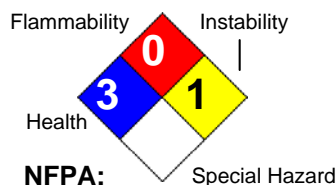
GHS Storage and Disposal Phrases: P405: Store locked up.
P501: Dispose of contents/container according to local, state and federal regulations.
P403+233: Store container tightly closed in well-ventilated place - if product is as volatile as to generate hazardous atmosphere.

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Hazard Rating System:

HEALTH	*	3
FLAMMABILITY		0
PHYSICAL		0
PPE		H

**HMIS:****OSHA Regulatory Status:**

This material is classified as hazardous under OSHA regulations.

**Potential Health Effects
(Acute and Chronic):**

Inhalation Acute Exposure Effects:

Inhalation of muriatic acid vapors can cause irritation of respiratory tract, burns, pulmonary edema, and coughing.

Inhalation long term exposure:

Long term exposure to muriatic acid can cause erosion of the teeth.

Skin Contact Acute Exposure Effects:

May cause severe burns, irritation, pain, and ulceration.

Skin contact long term exposure:

May cause dermatitis.

Eye Contact Acute Exposure Effects:

May cause severe burns, eye damage, and blindness.

Eye contact long term exposure:

No effects are known.

Ingestion Acute Exposure Effects:

Poison. May be fatal if swallowed. May cause severe irritation, perforation of the intestinal tract, and burns in mouth, pharynx, and gastrointestinal tract. May cause intense pain, nausea, vomiting, bleeding, circulating collapse, and shock.

Medical Conditions Generally Respiratory system (including asthma and other breathing disorders)

Aggravated By Exposure:

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Hazardous Components (Chemical Name)	Concentration
7647-01-0	Hydrochloric acid {Hydrogen chloride}	20.0 %

4. FIRST AID MEASURES

Emergency and First Aid Procedures:

Inhalation:
If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered. Obtain medical attention immediately.

Skin Contact:
Wash with soap and large quantities of water and remove contaminated clothing, jewelry, and shoes immediately. Wash for 15 minutes. If irritation persists, seek medical attention.

Eye Contact:
Immediately begin to flush with large quantities of water, remove any contact lens. Continue to flush with water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all of the eye and lid tissues. Flushing the eyes with water within several seconds is essential to achieve maximum effectiveness. Seek immediate medical attention.

Ingestion:
Do not induce vomiting. Give milk of magnesia or large amounts of water. Never give anything by mouth to an unconscious person. Call your poison control center, hospital emergency room or physician immediately for instructions. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops.

Signs and Symptoms Of Exposure:

See Potential Health Effects.

Note to Physician:

Call your local poison control center for further information.

The absence of visible signs or symptoms of burns does not reliably exclude the presence of actual tissue damage. Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

Suitable Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire.

Fire Fighting Instructions: Keep unnecessary people away, isolate hazard area and deny entry. Wear NIOSH approved positive -pressure self-contained breathing apparatus. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame. Move containers from fire if it can be done without risk.

Flammable Properties and Hazards: Non-flammable.

6. ACCIDENTAL RELEASE MEASURES

**Steps To Be Taken In Case
Material Is Released Or
Spilled:**

Small Spills:

Keep unnecessary people away and isolate hazard area. Wear appropriate personal protective equipment. Take up liquid with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable. Material may be neutralized with baking soda, soda ash, or dilute caustic soda. Stay upwind, out of low areas, and ventilate closed spaces before entering.

Large Spills:

Evacuation of surrounding area may be necessary for large spills. Wear appropriate personal protective equipment. Completely contain spilled material with dikes, sandbags, etc. Shut off ventilation system if needed. Reprocess or reuse if possible. Neutralize with soda ash or dilute caustic soda. Collect with appropriate absorbent and place into suitable container. Keep out of sewers and water supplies. This material is acidic and may lower the pH of the surface waters with low buffering capacity.

7. HANDLING AND STORAGE

**Precautions To Be Taken in
Handling:**

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Avoid breathing vapor or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

When mixing, slowly add acid to water to minimize heat generation and spattering. Never add water to acid.

Keep container tightly closed when not in use. Keep container properly labeled.

**Precautions To Be Taken in
Storing:**

Keep container tightly closed when not in use. Store in a cool, dry place away from direct sunlight and heat to avoid container deterioration. Avoid storage at extreme high or low temperatures. Protect from freezing. Keep container properly labeled. Keep separated from incompatible substances.

Store in acid-resistant plastic, glass containers, or rubber-lined steel containers. Do not store in aluminum containers or use aluminum fittings or transfer lines.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7647-01-0	Hydrochloric acid {Hydrogen chloride}	CEIL: 5 ppm	CEIL: 2 ppm)	No data.

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Respiratory Equipment (Specify Type):

Where vapor concentration exceeds or is likely to exceed applicable exposure limits, a NIOSH approved respirator with acid gas cartridges is required. When an air-purifying respirator is not adequate or for spills and/or emergencies of unknown concentrations, a NIOSH approved self-contained breathing apparatus or airline respirator with full-face piece is required. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

For OSHA controlled work place and other regular users. Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV.

For occasional consumer use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator. A dust mask does not provide protection against vapors.

Eye Protection:

Safety glasses with side shields. Wearing chemical goggles with a face shield is recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn.

Provide an emergency eyewash station or quick drench shower in the immediate work area.

Protective Gloves:

Wear impermeable gloves. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with products.

Other Protective Clothing:

Wear chemical resistant clothing and rubber boots when potential for contact with the material exists.

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use. Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.

Engineering Controls (Ventilation etc.):

Use closed system when possible. Provide local exhaust ventilation where vapor or mist may be generated. Ensure compliance with applicable exposure limits.

Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea, burning sensations, or eye-watering -- Stop -- ventilation is inadequate. Leave area immediately.

Work/Hygienic/Maintenance Practices:

A source of clean water should be available in the work area for flushing of eyes and skin.

Wash hands thoroughly after use and before eating, drinking, or smoking. Do not eat, drink, or smoke in the work area. Discard any clothing or other protective equipment that cannot be decontaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States: [] Gas [X] Liquid [] Solid
Appearance and Odor: water white, free and clear

potential slight pungent odor
Melting Point: -59.00 C
Boiling Point: 108.00 C
Autoignition Pt: No data.
Flash Pt: No data.
Explosive Limits: LEL: No data. UEL: No data.
Specific Gravity (Water = 1): 1.092 - 1.097
Density: 9.09 LB/GA
Vapor Pressure (vs. Air or mm Hg): 0.2 MM HG
Vapor Density (vs. Air = 1): > 1
Evaporation Rate: < 1
Solubility in Water: 100 %
pH: < 1
Percent Volatile: 100.0 % by weight.

10. STABILITY AND REACTIVITY

Stability: Unstable [] Stable [X]
Conditions To Avoid - Instability: No data available.
Incompatibility - Materials To Avoid: Incompatible with strong oxidizing agents, strong caustics, alkalis and alkali metals, mercuric sulfate, perchloric acid, carbides of calcium, cesium, rubidium, acetylides of cesium and rubidium, phosphides of calcium and uranium, lithium silicide, cyanides (which may produce lethal concentrations of hydrocyanic acid), and common and active metals (which produce flammable hydrogen gas).
Hazardous Decomposition Or Byproducts: Thermal decomposition may produce hydrogen chloride vapors and toxic gases.
Possibility of Hazardous Reactions: Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions: No data available.

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11. TOXICOLOGICAL INFORMATION

Toxicological Information: No data available.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
7647-01-0	Hydrochloric acid {Hydrogen chloride}	n.a.	3	A4	n.a.

12. ECOLOGICAL INFORMATION

General Ecological Information: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with applicable local, state, and federal regulations.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: UN1789, Hydrochloric Acid, 8, PGIII, LTD. QTY.

DOT Hazard Class:

UN/NA Number:

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: UN1789, Hydrochloric Acid, 8, PGIII, LTD. QTY.

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: UN1789, Hydrochloric Acid, 8, PGIII

Additional Transport Information: For D.O.T. information, contact W.M. Barr Technical Services at 1-800-398-3892.

15. REGULATORY INFORMATION

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:
[X] Yes [] No Acute (immediate) Health Hazard
[X] Yes [] No Chronic (delayed) Health Hazard
[] Yes [X] No Fire Hazard
[] Yes [X] No Sudden Release of Pressure Hazard
[X] Yes [] No Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
7647-01-0	Hydrochloric acid {Hydrogen chloride}	CAA HAP,ODC: HAP; CWA NPDES: No; TSCA: Yes - Inventory, 4 Test; CA PROP.65: No

Regulatory Information Statement: All components of this material are listed on the TSCA Inventory or are exempt.

16. OTHER INFORMATION

Revision Date: 09/08/2014

Preparer Name: W.M. Barr EHS Department (901)775-0100

Additional Information About This Product: No data available.

Company Policy or Disclaimer:

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information

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must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.