SAFETY DATA SHEET

Section 1

Identification

HOME SCIENCE TOOLS

665 Carbon Street Billings, MT 59102 800-860-6272 www.homesciencetools.com Page E1 of E2

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

HYDROCHLORIC ACID, 1 MOLAR (1 NORMAL) SOLUTION Product Synonyms Muriatic Acid, Water Solution / Hydrogen Chloride, Water Solution Section 2 Hazards identification Signal word: WARNING Precautionary statement(s): Pictograms: GHS05 P234: Keep only in original container. Target organs: Respiratory system, skin, eyes, lungs. P264: Wash hands thoroughly after handling. P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313: If skin irritation occurs: Get medical attention. P337+P313: If eye irritation persists: Get medical attention. P390: Absorb spillage to prevent material damage. **GHS Classification:** P406: Store in corrosive resistant container with a resistant inner liner. Corrosive to metals (Category 1) Skin irritant (Category 3) Eye irritant (Category 2B) GHS Label information: Hazard statement(s): H290: May be corrosive to metals. H316: Causes mild skin irritation. H320: Causes eye irritation.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3	Composition / information on ingredients					
Chemical Name		CAS #	%	EINECS		
Water Hydrochloric acid		7732-18-5 7647-01-0	96.86% 3.14%	231-791-2 231-595-7		
Section 4	First aid measures					

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY CAUSE IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire fighting measures

Suitable Extinguishing Media: Carbon dioxide, dry chemical, dry sand, alcohol foam.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Contact with metals produce hydrogen, which is flammable and may produce explosive mixtures with air.

Section 6 Accidental release measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from incompatible substances.

Section 8	Exposure controls / personal protection					
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
	Hydrogen chloride	STEL: C 2 ppm / C 2.98 mg/m ³	STEL: C 5 ppm / C 7 mg/m ³	STEL: C 5 ppm / C 7 mg/m ³		

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low. Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

approved respirator						
Section 9	Physical and chemical p	roperties				
Appearance: Clea Odor: No odor. Odor threshold: N pH: No data availal Melting / Freezing Boiling point: ~ 10 Flash point: Not fit Evaporation rate (o data available ole point: ~ 0°C (~ 32°F) [water] 0°C (212°F) [water] ammable.	Flammability (solid/gas): No data Explosion limits: Upper/Lower: N Vapor pressure (mm Hg): 14 [wate Vapor density (Air = 1): 0.7 [water] Relative density (Specific gravity): Solubility(ies): Complete. Partition coefficient: (n-octanol / water Auto-ignition temperature: No dat	o data available r] 1.0 [water]): No data available	Decomposition temperature Viscosity: No data available Molecular formula: Mixture. Molecular weight: Mixture.		
Section 10 Stability and reactivity						
Chemical stability: Conditions to avoi		Hazardous polymerization: heated. Avoid contact with water.	Will not occur.			
Incompatible mate formaldehyde.	rials: Metals, bases, active me	tals, alkali metals, oxidizing agents, hydi	roxides, amines, carbo	onates, cyanides, sulfides, sulfit	es,	
Hazardous decom	osition products: Hydrogen	chloride gas.				
Section 11	Toxicological information	1				
Skin corrosion/irritation: Data not available at this dilution. Serious eye damage/irritation: Data not available at this dilution. Respiratory or skin sensitization: Data not available Germ cell mutagenicity: Data not available Carcinogenity: Data not available NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP. IARC: Group 3: Not classifiable as to its carcinogenicity to humans. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Reproductive toxicity: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: To the soft of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards. Inhalation: May be harmful if inhaled. Material may cause irritation to the tissue of the mucous membranes and upper respiratory tract. Ingestion: May be harmful if swallowed. Skin: May cause irritation and/or burns. Signs and symptoms of exposure: Data not						
Section 12	Ecological information					
Toxicity to daphnia Toxicity to algae: N Persistence and de Mobility in soil: No	and other aquatic invertebra lo data available gradability: No data available o data available		data available data available	disposal.		
Section 13	Disposal considerations					
regulations may b	e different. Dispose of in acc	disposal of catalog-size quantities c cordance with all local, state and fed				
Section 14	Transport information					
UN/NA number: Hazard class: 8 Exceptions: Lin		pping name: Hydrochloric acid king group: III ss than 5 Lt	Reportable Quar 2016 ERG Guide	ntity: 5000 lbs (2270 kg) 9# 157	Marine pollutant: No	

Section 15 **Regulatory information**

A chemical is considered	I to be listed if the CAS number for th	e annyurous ion	in is on the inventory list.				
Compone	nt	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Hydrochloric acid		Listed	5000 lbs (2270 kg)	D002	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.
Section 16	Other information						

ection 16 Other Information

The information contained herein 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 determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook. Form 06/2015