Safety Data Sheet

Better Chemistry. Better Business HAZA to kidne (Tlnver lung (0 Tdb(CHE:)rough prolongsd or0 0peresd) Tj 0 -12.7 Td /exposure. 0/

ACID MILL TI 610 Revised: 10/26/15

1 IDENTIFICATION

Product Name: ACID MILL TI 610

Product Code : 2900095

Recommended use of the chemical and restrictions on use: Industrial applications

Hubbard-Hall Inc.
563 South Leonard Street
Waterbury, CT 06708
Telephone : 203-756-5521
Fax number: 203-756-9017

Emergency Phone Number
CHEMTREC: 1 (800) 424-9300
International: 1 (703) 527-3887

2 HAZARDS IDENTIFICATION

Signal Word: DANGER

Hazard Category: Hazard Category:

Wash skin thoroughly after handling.

Wear protective gloves, chemical protective clothing, eye protective goggles and face shield for face protection.

Obtain special instruction before use.

Do not handle until all safety precautions have been read and understood.

Keep only in original container.

Avoid releases to the environment

Response: If inhaled: Remove person to fresh air and keep comfortable for breathing.

Immediately call poison center or doctor and explain the type of exposure to the chemical(s) and provide the name of the chemical(s).

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing Rinse skin with water/shower .

Wash contaminated clothing before reuse.

Specific treatment - refer to poison center or doctor for advice.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If exposed or concerned: Get medical advice/attention.

Absorb spillage to prevent material damage .

Storage: Store locked up.

Store in well ventilated place. Keep container tightly closed.

Store in corrosive resistant high density polyethylene container.

Disposal: Dispose of contents/container in accordance with local, regional, national, or international regulations.

3 COMPOSITION INFORMATION

Chemical Name	Common Name And Synonyms	CAS No. and other Unique identifiers	Concentration %
Sulfuric Acid	Oil of Vitriol	7664-93-9	Approx 42%
Phosphoric Acid	-	7664-38-2	Approx 30%
Hydrofluoric Acid	Hydrogen Fluoride	7664-39-3	Approx 5%

4 FIRST AID

After Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

After Skin Contact:

Quickly remove contaminated clothing. Rinse with flooding amounts of water for at least 15 minutes. After rinsing, massage in a 2.5% calcium gluconate gel until pain is relieved. If pain persists, calcium gluconate injections may be necessary. Consult a physician.

After Eye Contact:

Immediately flush the eyes with large quantities of running water for 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyelids with water. DO NOT attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used. Continue rinsing for an additional 15 minutes if the physician is not available.

After Ingestion:

If swallowed: Rinse mouth. Do NOT induce vomiting.

5 FIRE FIGHTING MEASURES

Suitable and Unsuitable extinguishing media:	Avoid contact with water. Use foam, dry chemical or carbon dioxide.
Specific hazards arising from the chemical:	Sulfur dioxide may be produced.
Special protective equipment and precautions for firefighter	Fire fighters should enter area only if they are protected from all contact with the materail. Full protective clothing, including self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms, and waist, should be worn. No skin surfaces should be exposed.

6 ACCIDENTAL RELEASE MEASURES

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std.	TWA-8hrs	STEL - 15 min.
Sulfuric Acid	ACGIH	0.2 mg/m3	
Phosphoric Acid	ACGIH	1 mg/m3	3 mg/m3
Hydrofluoric Acid	ACGIH	0.5 ppm	-

ACGIH - American Control of Governmental Hygenists
OSHA - Occupational Safety and Health Administration

Ventilation:	Use local exhaust to keep personal exposures below the OSHA Permissible Exposure Limit (s) (PEL) or the ACGIH threshold Limit Values (TLV)Time Weight Average (TWA).
Respiratory Protection:	A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI 788.2 or applicable federal requirements must be followed whenever work place conditions warrant respirator use. NIOSH's Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.
Protective Gloves:	Acid resistant rubber.
Eye Protection:	Wear chemical safety goggles with face shield.
Other Protective Equipment:	Rubber aprons, safety shoes and similar protective clothing.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear colorless liquid
Odor:	acrid smell
Odor Threshold:	N/A
PH:	<1
Melting Point/Freezing Point:	N/A
Initial Boiling Point and Boiling Range:	N/A
Flash Point:	N/A
Evaporation Rate:	N/A
Flammability (solid, gas):	N/A
Upper/Lower flammability or explosive limits:	N/A
Vapor Pressure:	N/A
Vapor Density:	N/A
Relative Density:	1.612
Solubility (ies):	Complete in water
Partition Coefficient; n-octanol/water:	N/A
Auto-ignition Temperature:	N/A
Decomposition Temperature:	N/A
Viscosity:	N/A

10 STABILITY AND REACTIVITY

Reactivity:	Reacts violently with water, organic substances and base solutions with evolution of heat and hazardous mists.
Chemical Stability:	Stable under normal conditions
Conditions to Avoid:	Extremely high temperatures

Incompatible Materials:	Vigorous reactions with: water;alkaline solutions;metals, metal powder, Cabides;Chlorates;Fulminates;nitrates,picrates, strong oxidizing,reducing,or combustible organic materials. Hazardous gases are evolved in contact with chemicals such as cyanides, sulfides, and carbides. Sulfuric acid reacts with metal to produce hydrogen, a flammable and potentialy explosive gas. Hydrogen reacts with sulfides and generates hydrogen sulfide(Highly toxic gas). NEVER add water directly to sulfuric acid because a violent exothermic reaction may occur.
Hazardous Decomposition Products:	Possibility of decomposition if heated and in contact with sources of ignition. Releases of toxic gases and vapors (Sulfur oxides (SO2,SO3)). Heat above 350C will result in decomposition, releasing hydogen fluoride and ammonia gas. Contact with strong acids will cause hydrogen fluoride to be released; contact with strong alkalis will cause ammonia gas to be released.

11 TOXICOLOGICAL INFORMATION

Oral Administration:	Sulfuric Acid-LD50-(Rat)-2140 mg/kg
Oral Administration:	Phosphoric Acid-LD50-(Rat-female)-1.7 mL/100 g body weight
Oral Administration:	Hydrofluoric Acid-Lc50(Rat)-1276 ppm -1 h
Inhalation:	Sulfuric Acid-LC50-(Rat)-347 ppm-1 h
Immediate effects:	Severe irritation or burns to skin, eyes and respiratory system
Long term exposure:	Long term exposure to concentrated vapors may cause erosion of the teeth. Long term exposure seldom due to corrosive properties of the acid.
Cancer Hazard:	IARC group 1-Carcinogenic to Humans(Strong inorganic mists containing Sulfuric acid),ACGIH-A2-Suspected Human Carcinogen.
Routes of Exposure	Eyes, Skin, Inhalation, Ingestion

12 ECOLOGICAL INFORMATION

Fish, Lepomis macrochirus,	Sulfuric Acid,LC50-48 h-49 mg/L
Daphnia Magna,	Sulfuric Acid-EC50,48 h-60-70 mg/L
Persistence and Degradability:	Not Available
Bioaccumulation potential:	Unlikely
Water result:	Disperses in water.
Soil/Sediment Result:	No data avaiilable

13 DISPOSAL CONSIDERATION

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14 TRANSPORT INFORMATION

UN Number:	2922
UN Proper Shipping Name:	CORROSIVE LIQUID, TOXIC, N.O.S. (SULFURIC ACID, PHOSPHORIC ACID, HYDROFLUORIC ACID),
Transport Hazard Class (es):	6.1, (8)
Packing Group:	II
ERG:	154

15 REGULATORY INFORMATION

HMIS: Health: 3 Flammability: 0 Reactivity: 1

Cercla	Sulfuric Acid-RQ=1000 lbs
Cercla	Hydrofluoric Acid-RQ=100 lbs
Sara Hazard Classification	SARA Tittle III Section 311 Categories: Immediate (Acute) Health Effects: Yes, Delayed (Chronic) Health Effects: Yes, Fire Hazard: No, Sudden Release of Pressure Hazard: No, Recativity Hazard: No
Sara Hazard Classification	* THIS SUBSTANCE IS A CHEMICAL SUBJECT T , FSECONREGUPOTj [(T)RS

Sara Hazard Classification	Subject to reporting levels established by SARA Title III,Section 302

16 OTHER INFORMATION