

**APG****Analytical Products Group, Inc.**2730 Washington Blvd., Belpre, OH 45714  
740-423-4200 800-272-4442 Fax 740-423-5588**Material Safety Data Sheet**

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**Section I: Product Identification**

CATALOG NUMBER: 4820,4822,224820	PRODUCT NAME: Acidity as CaCO <sub>3</sub>
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**Section II - Hazardous Ingredients/Identity Information**

Chemical Name	CAS Reg. No.	OSHA PEL (TWA)	% Composition*
Sulfuric Acid	7664-93-9	1mg / m <sup>3</sup>	0.1%

**Non-Hazardous Ingredients/Identity Information**

Chemical Name	CAS Reg. No.	OSHA PEL (TWA)	% Composition*
Water	7732-18-5	NA	>99%

\* components are calculated on a weight/weight basis.

**Section III - Physical/Chemical Characteristics of Hazardous Ingredients**

BOILING POINT: 290° C	SPECIFIC GRAVITY: 1.84		
VAPOR PRESSURE: <0.001mm Hg @ 20° C	SOLUBILITY IN WATER: Soluble	APPEARANCE/ODOR: Odorless, clear, colorless, dense, hygroscopic, oily liquid.	

**Section IV - Fire and Explosion Hazard Data**

FLASH POINT (Method used): Non-flammable	AUTO IGNITION TEMPERATURE: N/A	FLAMMABLE LIMITS	LEL N/A	UEL N/A
EXTINGUISHING MEDIA: Dry chemical or carbon dioxide				
SPECIAL FIRE FIGHTING PROCEDURES: Move containers, cool if possible. Do not use water directly on material. Avoid breathing vapors, use water spray to knock down.				
UNUSUAL FIRE AND EXPLOSION HAZARDS: Contact with metals may evolve hydrogen gas. May ignite combustible materials on contact.				

**Section V - Reactivity Data**

STABILITY:	Unstable <input type="checkbox"/>	Stable <input checked="" type="checkbox"/>	Conditions to Avoid: Violent exothermic reactions with water and organic materials.
INCOMPATIBILITY (Materials to avoid): Explosive or violent reactions with acetone cyanohydrin, acetone and nitric acid or potassium dichromate, acrylonitrile, alcohol's, hydrogen peroxide, allyl chloride, bromates and metals, bromine pentafluoride, carbides, all chlorates, chlorine trifluoride, cuprous nitride, ethylene cyanohydrin, fulminates, indane and nitric acid, iron, mercuric nitride, nitric acid and glycerides, p-nitrotoluene, pentasilver, trihydroxydiaminophosphate, perchlorates, phosphorus isocyanate picrates, silver permanganate, sodium, sodium carbonate, toluene and nitric acid. Dangerous temperatures and pressures occur with substances, especially organic combinations. Explosive hydrogen gas is evolved from contact with steel, other metals.			
HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumes of sulfur oxides. Hydrogen gas may be generated.			
HAZARDOUS POLYMERIZATION:	May Occur <input type="checkbox"/>	Will Not Occur <input checked="" type="checkbox"/>	Conditions to Avoid: N/A

**Section VI - Health Hazard Data**

<b>ROUTES OF ENTRY</b>	Inhalation? Yes	Skin? Yes	Ingestion? Yes
HEALTH HAZARDS (Acute and Chronic): ACUTE - at 5mg/M3 concentrations, nose and throat irritation occurs, with headache, cough, increased respiratory rate, impairment of lung to ventilate. Delayed symptoms include tight chest, fluid in lungs, cyanosis (blue color), hypotension, bronchitis or emphysema. Skin contact may result in severe burns, blistering, pain. Eye contact can result in blindness; exposure to mist leads to watering, irritation. Ingestion can cause severe burning and pain of mouth, throat, abdomen. Vomiting and diarrhea of dark blood may occur; asphyxia from throat swelling. Stomach and esophagus may become perforated. CHRONIC - Tracheobronchitis, dental erosion/discoloration, pneumonia, gastrointestinal disturbances may occur. Skin irritation/dermatitis, conjunctivitis and lacrimation of the eye can occur.			
COMPONENTS LISTED AS CARCINOGENS OR POTENTIAL CARCINOGENS: N/A			
SIGNS AND SYMPTOMS OF EXPOSURE: Irritation, burns of eyes, skin, and respiratory tract.			
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Respiratory ailments, skin irritations.			
EMERGENCY AND FIRST AID PROCEDURES: Inhalation: Move victim to fresh air, give artificial respiration if necessary. Maintain airway, get medical aid at once. Skin: Remove contaminated clothing, wash affected area with soap and water, flush with large amounts of water (15-20 minutes). For burns apply loose non-medicated sterile bandages. Get medical aid at once. Ingestion: Give conscious victim large quantities of water to dilute acid. Do not induce vomiting. Give one ounce (30ml) of milk of magnesia. Get medical aid at once.			

**Section VII - Precautions for Safe Handling and Use**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: May neutralize with lime, limestone or Sodium Bicarbonate. Absorb with non reactive material. Wash down with water.
WASTE DISPOSAL METHOD: Dispose of in a manner consistent with federal, state and local regulations.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store at room temperature, capped.
OTHER PRECAUTIONS* Avoid vapors, wear protective clothing, gloves.

**Section VIII - Control Measures**

RESPIRATORY PROTECTION (Please specify): Follow OSHA respirator regulations found in 29CFR 1010.134 when necessary.	
VENTILATION: Provide local exhaust or general dilution ventilation.	
PROTECTIVE GLOVES: Wear appropriate gloves	EYE PROTECTION: Wear appropriate protective glasses or chemical safety goggles.
OTHER PROTECTIVE EQUIPMENT: N/A	
EMERGENCY WASH FACILITIES: Provide eye-wash fountain in work area.	

**Section IX - WHMIS Class: E Corrosive Material**

The information stated in this Material Safety Data Sheet (MSDS) is believed to be correct on the date of publication and must not be considered all conclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. Persons not specifically and properly trained should not handle this chemical or its container. This MSDS is provided without any warranty expressed or implied, including merchantability or fitness for any particular purpose.

This product is furnished for laboratory use ONLY! Our standards may not be used as drugs, cosmetics, agricultural or pesticidal products, food additives or as house hold chemicals.

\* Various Government agencies (i.e., Department of Transportation, Occupational Safety and Health Administration, Environmental Protection Agency, and others) may have specific regulations concerning the transportation, handling, storage or use of this product which may not be contained herein. The customer or user of this product should be familiar with these regulations.