



SENTRY INDUSTRIES INC.



MATERIAL SAFETY DATA SHEET

SECTION 1 IDENTIFICATION

Trade Name: POOL ACID NON-FUMING
Chemical Name: SULFURIC ACID, Not more than 51% acid
Manufacture: SENTRY INDUSTRIES INC
Address: 5687 NW 36th Ave. Miami, Fl. 33142
Telephone: (305) 638-0800, (954) 527-4000, (800) 227-2047
Emergency Phone #: CHEM-TEL (800) 255-3924, Sentry 24 hr (305) 968-3827

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredient(s):</u>	<u>CAS Number</u>	<u>Percent</u>
Sulfuric Acid (H ₂ SO ₄)	7664-93-9	30 – 40%
Water	7732-18-5	70 – 60%

SECTION 3 HAZARDS IDENTIFICATION

*****WARNING*** WATER REACTIVE - DO NOT USE WATER TO DILUTE. EXTREME HEAT AND SPLATTERING. CORROSIVE, CAUSES SEVERE BURNS.**

Eye Contact: Corrosive. Contact can cause blurred vision, redness, pain, and severe tissue burns. Can cause blindness.

Skin Contact: Corrosive. Symptoms of redness, pain, and severe burning can occur. Circulatory collapse with clammy skin, weak and rapid pulse, shallow respiration, and scanty urine may follow skin contact. Circulatory shock is often the immediate cause of death.

Inhalation: Inhalation produces damaging effects on the mucous membrane and upper respiratory tract. Symptoms may include irritation of the nose and throat, and labored breathing. May cause lung edema and hemorrhage.

Ingestion: Corrosive. Swallowing can cause severe burns of the mouth, throat, and stomach, leading to death. Can cause sore throat, vomiting, diarrhea. Circulatory collapse with clammy skin, weak and rapid pulse, shallow respiration, and scanty urine may follow ingestion. Circulatory shock is often the immediate cause of death.

SECTION 4 FIRST-AID MEASURES

*****NOTE***CALL A POISON CONTROL CENTER OR MEDICAL PHYSICIAN FOR ADVICE. HAVE PRODUCT LABEL OR MSDS WITH YOU WHEN CALLING OR GOING FOR MEDICAL TREATMENT.**

Eye Contact: Immediately irrigate with water for at least 15 minutes, including under eyelids. Get treatment from a physician immediately.

Skin Contact: Immediately flush skin/affected area with large amounts of water for at least 15 minutes. Remove contaminated clothing while under a safety shower. Wash clothing before reuse. A 2% solution of bicarbonate of soda can be used to neutralize acid on the skin. Get treatment from a physician immediately.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, have trained personnel administer oxygen. Get treatment from a physician immediately.

Ingestion: DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get treatment from a physician immediately.

Chronic Exposure: Long-term exposure to mist or vapors may cause damage to teeth.

Aggravation of Pre-Existing Conditions: Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of this substance.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point: Non-Flammable Auto-ignition Temperature: N/A
 Flammable Limits: NA Unusual Fire & Explosion Hazards: Non-combustible.
 Neutralization Chemicals: Soda Ash, Sodium Bicarbonate or Lime
 Extinguishing Media: Dry chemical, foam or carbon dioxide.

DO NOT USE WATER ON MATERIAL. However, water spray may be used to keep fire-exposed container cool.
 Special Fire Fighting Procedures:
 Evacuate area of unprotected personnel. Reacts with many metals to form flammable and explosive hydrogen gas. Reacts violently with water and many organic materials. A fire could cause evolution of sulfuric acid mist or sulfuric trioxide. Use water spray to cool sulfuric acid containers to prevent rupture.

Additional Information:
 Wear positive pressure, self-contained breathing apparatus and full protective equipment. Structural firefighter's protective clothing is ineffective for fires involving this material. Stay away from sealed containers. Evacuate area of unprotected personnel. Isolate the hazard area and deny unnecessary entry.



NFPA Rating

Health 3
 Flammability 0
 Reactivity 2
 Special Hazard W

Blue
 Red
 Yellow
 White

HMIS Rating

Health 3
 Flammability 0
 Reactivity 2
 Special W



SECTION 6 ACCIDENTAL RESLEASE MEASURES

Steps to be taken if material is Released or Spilled:
 Stop leak if without risk. Ventilate area. Restrict access to the area. Wear appropriate personal protective equipment as outlined in Section 8. Contain the spilled liquid in as small of an area as possible for recovery. Do not flush to sewer. Neutralize any remaining material with sodium bicarbonate, soda ash, or lime. Neutralized material may be flushed to approved waste system, (check with local authorities) or absorbed with an inert material (e.g., vermiculite, dry sand), and placed in a chemical waste container. Do not use combustible materials, such as sawdust. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of the reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

SECTION 7 HANDLING AND STORAGE

Precautions to be taken in Handling and Storage: Store in tightly closed containers. Store in a cool, well ventilated, dry area away from other incompatible materials and away from heat sources. Protect from physical damage. Open containers slowly to avoid spurting. When diluting, always add acid to water, never add water to acid. Keep out of reach of children.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Use chemical splash-proof safety goggles and full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work areas. Do not wear

Skin Protection: contact lenses when working with sulfuric acid. Wear impervious protective clothing, (acid suits) including boots, gloves. Sleeves over cuffs of gloves and pant legs worn over top of boots.

Respirator Protection: Should not normally be required at normal temperatures. If the exposure limits is exceeded and engineering controls are not feasible, a full facepiece respirator with an acid gas cartridge and particulate filter (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Ventilation: General ventilation or local exhaust is required to keep employee exposures below the exposure limits where an acid mist is present.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name:	Sulfuric Acid	Alternate Name:	Hydrogen Sulfate
Chemical Family:	INORGANIC ACID	Formula:	H ₂ SO ₄ in H ₂ O
Physical State:	Liquid	Appearance and Odor:	Clear oily liquid, odorless
Specific Gravity:	1.2 – 1.4		
Boiling Point:	250° F	Freezing Point:	-35°F to -65°F
pH:	0.3 – 2.1		
Vapor Pressure (mm Hg):	77°F – Less than 1	Vapor Density:	3.4 (Air = 1)
Solubility in Water:	Miscible with water, liberates much heat.		

SECTION 10 STABILITY AND REACTIVITY

Stability: Stable under ordinary conditions of use and storage. Concentrated solutions react violently with water, spattering and liberation of heat.

Incompatibility (Materials to Avoid): Water, potassium chlorate, potassium perchlorate, potassium permanganate, sodium, lithium, bases, organic materials, halogens, metal acetylides, oxides and hydrides, metals (yields hydrogen gas), strong oxidizing and reducing agents and many other reactive substances.

Hazardous Decomposition Products: Toxic fumes of oxides of sulfur when heated to decomposition. Will react with water or steam to produce toxic and corrosive fumes. Reacts with carbonates to generate carbon dioxide gas, and with cyanides and sulfides to form poisonous hydrogen cyanide and hydrogen sulfide respectively.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: High temperatures (above 150° F), incompatible materials.

SECTION 11 TOXICOLOGICAL DATA

OSHA PEL 1 mg/m³ (TWA)
ACGIH TLV 1 mg/m³ (TWA)
Toxic Data: Oral, rat LD50: 2140 mg/kg, Inhalation, rat LC50: 510 mg/m³/2 hours, Eye, rabbit, 250 mg – Severe irritation.
STEL 3 mg/m³
Routes of Entry: Skin/eye contact, Lungs (breathing), Ingestion (swallowing).

SECTION 12 ECOLOGICAL INFORMATION

N/A

SECTION 13 DISPOSAL CONSIDERATIONS

Sulfuric acid that can not be recovered or recycled should be handled as a hazardous waste. Neutralized acid may be allowed to be flushed down sanitary sewer (check with local authorities). Dispose in accordance with Federal, State,

and local regulations. Chemical additions or otherwise altering the material may make the MSDS incomplete or inappropriate. Waste characterization and disposal compliance is the responsibility of the party generating and disposing of the waste. RCRA hazardous waste code D0002.

SECTION 14 TRANSPORTATION INFORMATION

DOT Proper Shipping Name: SULFURIC ACID (with not more than 51% acid)
DOT Hazard Class: 8 (CORROSIVE)
DOT Identification #: UN2796
Packing Group: II
Reportable Quantity (RQ): 1000 pounds

SECTION 15 REGULATORY INFORMATION

OSHA Classification 29CFR1910: Physical: Corrosive, Health: Burns, Corrosive, Physical Hazards: Reactivity
CERCLA AND SARA Regulations, 40CFR300-373: RQ = 1000 lbs. CERCLA Hazardous Material = Yes,
SARA Extremely Hazardous Substance = No, SARA Toxic Chemical = No
Clean Water Act: Lists Hydrogen Sulfate as a hazardous substance which, if discharged to the water, may require immediate response to mitigate dangers to human health and the environment.

Synonyms/ Common Names: H₂SO₄; Oil of Vitriol; Spirit of Sulfur; Hydrogen Sulfate; Oleum.
Chemical Family/Type: Inorganic Acid
EPA Registration Number: N/A
NSF Maximum Use Level for Potable Water: N/A

SECTION 16 OTHER INFORMATION

04/08/08 - Revision to formatting for GHS compliance.
11/27/01 - Original Issue

The data in this Material Data Sheet relates only to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control, it should not be taken as a warranty or representation for which Sentry Industries assume legal responsibility. This information is provided solely for your consideration, investigation, and verification. For additional information, contact our technical service department.