



POOL ACID (Sulfuric)

Material Safety Data Sheet

Emergency 24 Hour Telephone: CHEMTREC 800.424.9300

Corporate Headquarters: Hasa Inc.
23119 Drayton Street
Saugus, California 91350
Telephone • 661.259.5848
Fax • 661.259.1538



HASA POOL ACID (Sulfuric)
Material Safety Data Sheet MSDS No. 111

IDENTIFICATION OF PRODUCT

Product Name:	POOL ACID
Common Chemical Names:	40% Sulfuric Acid Solution, Pool Acid
Chemical Names of Ingredients:	Sulfuric Acid, Water
Chemical Family:	Inorganic Acid Compound
CAS Registry Number:	7681-52-9
Empirical Formula:	H ₂ SO ₄
Molecular Weight:	98.0

PHYSICAL AND CHEMICAL PROPERTIES¹

Vapor Pressure:	1 mm Hg at 145.8°	Flash Point:	Not Applicable.
Weight/Gallon:	10.8 lbs/gal	pH:	<1.0
Density [liquid]:	1.3 at 20°C [68°F]	Odor:	None
Bulk Density:	Not Applicable.	Boiling Point:	330°C [626°F]
Melting Point:	10.49°	Freezing Point:	No data
Physical State:	Liquid Solution	Color:	Water white
Solubility in Water:	100% in water	Stability:	Stable

PHYSICAL HAZARDS

Potential for Fire:	Nonflammable and noncombustible liquid. Reaction with metals may produce hydrogen gas. Oxides of sulfur may be produced in a fire.
Potential for Explosion:	Nonflammable and noncombustible liquid. Reaction with metals may produce hydrogen gas.
Reactivity:	Do not mix aqua ammonia, or other organic or inorganic chemicals with this product. Reacts with alkalis producing heat. Reacts with metals to produce hydrogen gas.
Extinguishing Media:	Non-Flammable. Possible corrosive fumes, use SCBA and protective clothing.

HEALTH HAZARDS	
Signs and Symptoms of Exposure:	Corrosive. Causes severe burns to skin and eyes.
Medical Conditions Aggravated by Exposure:	No data available.
Oral [ingestion] LD₅₀:	2140 mg/kg ² [rat]
Dermal [skin absorption] LD₅₀:	No data available. Causes severe burns to skin.
Inhalation [breathing] LC₅₀:	510 mg/m ³ [2 hours]
Eye Irritation:	Causes severe burns to eyes.
Skin Irritation:	Causes severe burns to skin. Repeated contact can cause dermatitis.
OSHA PEL:	1 mg/m ³
ACGIH TLV/TWA:	1 mg/m ³ ; STEL 3 ppm.

POTENTIAL ROUTE [S] OF ENTRY	
Inhalation [Breathing]:	Unlikely to occur. Vapor may cause corrosion to upper respiratory tract.
Dermal [Skin]:	Contact with broken skin may cause burning, blistering, and tissue destruction.
Eyes:	Corrosive
Ingestion:	Causes severe chemical burns to esophagus and to stomach lining.

CARCINOGENIC [CANCER POTENTIAL] INFORMATION	
National Toxicological Program [NTP] <i>Sixth Annual Report on Carcinogens</i>:	Not listed.
International Agency for Research on Cancer [IARC] <i>Monographs, V. 1-53, Supps. 1-8</i>:	Not listed.
Listed by Federal OSHA as Carcinogens:	Not listed.
Safe Drinking Water and Toxic Enforcement Act of 1986 [Proposition 65, California only]:	Not listed.

GENERAL PRECAUTIONS FOR SAFE USE AND HANDLING
Open containers carefully. Add acid solution to water. Do not mix with other chemicals.

PERSONAL PROTECTION AND HYGIENE
Wear rubber gloves and eye protection when handling and using this product. Wash hands after handling. Remove and wash contaminated clothing before reuse.

CLEAN-UP OF SPILLS
Store this product in a cool, dry area. In case of spill, clean up area where spill has occurred with mop, rinse with water, and flush residue to sanitary sewer.

FIRST AID	
Eye Contact:	Flush with water. Remove contact lenses [if applicable]. Hold eyelids open. Continue flushing with water for 15 minutes. Get prompt medical attention.
Skin Contact:	Wash affected area with soap and water for 15 minutes. Get medical attention.
Ingestion [swallowing]:	Drink large quantities of water. DO NOT induce vomiting. DO NOT give vinegar or other acids. Get prompt medical attention.

FEDERAL/STATE LISTS/REGISTRATION/S/REPORTING REQUIREMENTS	
CERCLA Hazardous Substance [Section 1010 [4], P.L. 96-510]:	RQ=1000 lbs [>245 gallons]
Extremely Hazardous Substance [40 CFR 355, Appendix A]:	Not listed.
Pesticide Product 7 U.S.C. 136 et seq.:	Not registered as a pesticide product.
Toxic Substance under TSCA:	Reported in inventory.
Pesticide Product [various State Laws]:	Not registered.
Notification Requirements Under Toxic Chemical Release Reporting – Community Right-to-Know [40 CFR §372.45]:	Not required. ²

MATERIAL CLASSIFICATION	
OSHA Hazard Communication Standard, Department of Labor, Occupational Safety and Health Division, 29 CFR 1910.1200:	Corrosive Liquid

Hazardous Materials Transportation Regulations, Department of Transportation (Federal) 49 CFR 172.101:	
Proper Shipping Description [1 gallon or less]:	Consumer Commodity, ORM-D
Proper Shipping Description [greater than 1 gallon]:	Sulfuric Acid <i>with not more than 51% acid</i> , 8, UN2796, P.G. II

National Fire Protection Association NFPA 704 [1990]:	3-0-0
BOCA National Fire Prevention Code/National Building Code [1999 editions]:	Corrosive Liquid
Standard Fire Prevention Code/Standard Building Code [1997 editions]:	Corrosive Liquid
Uniform Fire Code/Uniform Building Code [1997 editions]:	Corrosive Liquid
Uniform Fire Code Standards 79-3, Uniform Fire Code, V. II [1997 edition]:	3-0-0

REFERENCES

- Arena, J.M., *Poisoning: Toxicology, Symptoms, Treatments*. Springfield, Illinois: C.C. Thomas, 1970.
- Code of Federal Regulations*, Titles 29,40, and 49.
- Izmerov. N.F., *Toxicometric Parameters of Industrial Chemicals Under Single Exposure*, 2nd edition. Moscow: Centre of International Projects, GKNT, 1982.
- Journal of the American Hygiene Association*, 30, 470, 69.
- Lewis, Richard J. Sr., ed., *Sax's Dangerous Properties of Industrial Materials*, 8th edition. New York: Van Nostrand Reinhold, 1992.
- NFPA 49, *Hazardous Chemicals Data*
- Sax, N. Irving and Richard J. Lewis, Sr., *Hawley's Condensed Chemical Dictionary*. 11th edition. New York City: Van Nostrand Reinhold, 1987.

¹ Values are for concentrated sulfuric acid (98+%)

² Hasa Pool Acid is used to reduce pH of waters in swimming pools, spas, hot tubs, and recreational waters. It is a solution of sulfuric acid in water. Sulfuric acid is listed as a toxic chemical at 40 CFR 372.65 under Part 372, "Toxic Chemical Release Reporting – Community Right-to-Know," regulations promulgated pursuant to Section 313 Title III of the *Superfund Amendments and Reauthorization Act of 1986* [42 U.S.C. 11023 and 11048]. This product is excluded from reporting requirements because [1] it is not sold or otherwise distributed to facilities in SIC codes 20 through 39, and [2] it is a consumer product packaged for distribution to the general public. Section 372.45 requires a person who owns or operates a facility in SIC codes 20 to 39 who processes a toxic chemical and sells or otherwise distributes the toxic chemical to a facility in SIC codes 20 to 39 or to a person who in turn may sell or otherwise distribute the toxic chemical to a facility in SIC codes 20 to 39 to notify the person to whom the toxic chemical is sold or otherwise distributed as to the identity, CAS registration number, percentage by weight of the toxic chemical in the product, and provide certain other information. Notification must be attached to the Material Safety Data Sheet, "MSDS". Section 372.65(d)(iii) excludes from this requirement "(a)ny consumer product as the term is defined in the *Consumer Product Safety Act* (15 U.S.C. 1251 et seq.) packaged for distribution to the general public.

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