

### PRODUCT IDENTIFICATION



**Product Name:** Drain Hammer - Sulfuric Acid Drain Cleaner

**CAS Number:** 7664-93-9

**Molecular Formula:** H<sub>2</sub>O<sub>4</sub>S

**Molecular Weight:** 98.08 g/mol

**Grade:** Technical

**Purity / Concentration:** 100%

**Synonyms:** Sulfuric Acid Drain Opener, Drain Cleaner with Sulfuric Acid

### PRODUCT OVERVIEW

Drain Hammer is a technical grade sulfuric acid drain cleaner, ideal for clearing stubborn clogs. This 100% concentrated solution boasts a specific gravity of 1.834 g/mL and an assay of 93.1%, ensuring effective dissolving action against organic matter. It is specifically formulated for industrial and commercial drain maintenance.

**Grade Significance:** Technical grade sulfuric acid is suitable for applications where high purity is not critical, such as drain cleaning and pH adjustment. While it meets defined specifications, trace impurities may be present, making it a cost-effective option for industrial uses where absolute purity is not required.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	93.1	93	—	Titration with NaOH
Color (APHA)	APHA	10	—	20	ASTM D1209
Specific Gravity (20°C)	g/mL	1.834	1.83	—	ASTM D891
Residue After Ignition	%	0.0080	—	0.02	Gravimetric
Heavy Metals (as Pb)	ppm	0.5	—	2	ICP-OES
Iron (Fe)	ppm	2	—	5	ICP-OES
Chloride (Cl <sup>-</sup> )	ppm	1	—	5	Ion Chromatography
Sulfate (SO <sub>4</sub> <sup>2-</sup> )	ppm	5	—	15	Turbidimetry

ND = Not Detected. Values are typical and may vary by lot.

## PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Colorless, oily liquid	<b>Odor</b>	Odorless
<b>Form</b>	Liquid	<b>Boiling Point</b>	337°C (639°F)
<b>Melting / Freezing Point</b>	10°C (51°F)	<b>Specific Gravity</b>	1.83
<b>Solubility</b>	Miscible with water and organic solvents	<b>Molecular Formula</b>	H <sub>2</sub> O <sub>4</sub> S
<b>Molecular Weight</b>	98.08 g/mol	<b>Vapor Pressure (20°C)</b>	0.3 mmHg
<b>Viscosity (25°C)</b>	1.0 cP	<b>Refractive Index (20°C)</b>	1.406
<b>Density (25°C)</b>	1.84 g/mL	<b>Partition Coefficient (log -3.0 P)</b>	
<b>Decomposition Temp.</b>	No decomposition below 300°C (decomposes with strong heating)		

## APPLICATIONS

- Plumbing/Drain Maintenance** — Effectively clears clogged drains and pipes by dissolving organic matter, grease, hair, and other common blockage materials. Its high concentration ensures rapid action, reducing downtime and improving flow.
- Chemical Manufacturing** — Serves as a crucial reagent in various chemical reactions requiring a strong acid catalyst or reactant. Its controlled purity minimizes unwanted side reactions, leading to higher product yields.
- Wastewater Treatment** — Used to lower pH levels in wastewater treatment processes, ensuring compliance with environmental regulations. The consistent concentration allows for precise pH adjustments, preventing over-acidification.
- Laboratory Analysis** — Acts as a powerful dehydrating agent in laboratory synthesis and analytical procedures. Its strong affinity for water facilitates reactions requiring anhydrous conditions.
- Metal Processing** — Employed in metal cleaning and etching processes to remove surface oxides and contaminants. This prepares metal surfaces for subsequent treatments like plating or painting, enhancing adhesion and corrosion resistance.
- Textile Industry** — Used in various textile processing steps, such as carbonizing wool to remove plant matter. The controlled application ensures the desired effect without damaging the fabric.

## STORAGE & HANDLING

Proper storage is crucial due to sulfuric acid's corrosive nature. It should be stored in tightly sealed, acid-resistant containers in a cool, dry, and well-ventilated area, away from incompatible materials. Failure to do so can result in container damage, leaks, and potential hazards due to contact with skin or other substances.

- Store in a cool, dry, well-ventilated area away from incompatible materials.
- Use containers made of HDPE or glass to prevent corrosion.
- Avoid exposure to moisture and direct sunlight to maintain product integrity.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles when handling.
- Ensure proper ventilation in storage and usage areas to mitigate fume accumulation.

## AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

## SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



**Hazard Statements:**

- H314: Causes severe skin burns and eye damage [Danger Skin corrosion/irritation]

**Emergency Contact:** CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

*For complete safety information, refer to the Safety Data Sheet (SDS) for this product.*

---

**Alliance Chemical** | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | [www.alliancechemical.com](http://www.alliancechemical.com)

**Disclaimer:** The information contained herein is believed to be accurate and represents the best information currently available to us. However, Alliance Chemical makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.