



# DATASHEET

## SULFUR-SCRUB 43

### DESCRIPTION:

Liquid neutralizing agent for ammonia and amines. This solution helps quickly break down amines and ammonia into non-odorous components (sulfates). Very effective in liquid scrubber systems to neutralize ammonia/amine odors. Avoid using this product with anhydrous ammonia as there is excessive heat given off during the reaction. Corrosive Liquid! Contains sulfuric acid.

### PRODUCT USES & APPLICATIONS

- Tank Cleaning
- Vapor Scrubber Systems
- Spill Control
- Rail Car Cleaning
- Line Cleaning

### APPLICATION INSTRUCTIONS

Dilution Rate	4:1 with water
Application Method	Tank Cleaning or Vapor Scrubber Systems
Special Instructions	Maintain pH level of 2-4

**Specific Hazards:** Avoid mixing this product with sodium hypochlorite (bleach) solution. Chlorine gas may be created which is harmful.

### HAZARDOUS INFORMATION

Specific Hazard	Corrosive liquid!
Flash Point (°F)	Non-flammable
Biodegradability	Good
pH	1-1.5
Unusual Hazards	Avoid soft metals, stainless
Other Information	See SDS

### PACKAGING INFORMATION

Available Quantities	5,30,55,275 and bulk
Packaging Material	Poly
Other Information	Do not let product freeze.

### CASE STUDY & APPLICATION INFO

#### March 2012: Chemical Manufacturer Houston, TX

SULFUR-SCRUB 43 was used in a wet scrubber after a process which was air stripping ammonia from a wastewater tank. Inlet concentrations of ammonia were 210ppm. After the scrubber ammonia ppm level was 0. During the job, readings did reach 10ppm on the outlet of the scrubber due to an issue with the feed pump metering in the chemical media into the scrubber. Once fixed the ppm levels quickly went back to 0. Specialized ammonia carbon was used on the exhaust of the scrubber to polish vapors beyond 99.9999%.

#### June 2013: Port Arthur, TX

SULFUR-SCRUB 43 was used in a wet scrubber to neutralize amine odors at a chemical refinery. During the tank cleaning job a fishy odor was present and after testing it was determined that amines were present in the vapor stream. The regular carbon media was not efficient enough. An FRP wet scrubber from Vapor Tech was brought in and a 4:1 solution of SULFUR-SCRUB 43 was used to neutralize the amine odors.



## GHS SAFETY DATA SHEET

### 'SULFUR-SCRUB 43'

#### SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name..... SULFUR-SCRUB 43  
 Chemical Use..... Liquid Neutralizer  
 Chemical Family..... Mixture  
 Issue Date of SDS..... June 15, 2014  
 Revision Date of SDS..... 1/31/2022

#### MANUFACTURER:

**Vapor Technologies, Inc.**  
 7200 Williams Street  
 Hitchcock, TX 77563  
 (409) 316-0173

EMERGENCY TELEPHONE NUMBER: (877) 840-0646

[www.vapor-tech.net](http://www.vapor-tech.net)

#### SECTION 2 - HAZARDS IDENTIFICATION

##### GHS CLASSIFICATION:

<u>Health</u>	<u>Environmental</u>	<u>Physical</u>
Skin Corrosion: Category 1A	Aquatic Environment-Acute Hazard: Category 3	Corrosive to Metals: Category 1
Acute Toxicity - Oral: Category 4		
Acute Toxicity - Inhalation: Category 4		
Eye Damage/Irritation: Category 1		

##### GHS LABEL:



GHS05 Corrosive



GHS07 Irritant

##### SIGNAL WORD:

**DANGER**

##### Hazard Statements

H290: May be corrosive to metals.  
 H302: Harmful if swallowed.  
 H314: Causes severe skin burns and eye damage.  
 H318: Causes serious eye damage.  
 H332: Harmful if inhaled.  
 H402: Harmful to aquatic life.

##### Precautionary Statements

P234: Keep only in original container.  
 P260: Do not breathe dusts or mists.  
 P264: Wash hands thoroughly after handling.  
 P270: Do not eat, drink or smoke when using this product.  
 P271: Use only outdoors or in a well-ventilated area.  
 P273: Avoid release to the environment.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.  
 P301 + P312: IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.  
 P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310: Immediately call a POISON CENTER or doctor/physician.  
 P330: Rinse mouth.  
 P363: Wash contaminated clothing before reuse.  
 P390: Absorb spillage to prevent material damage.  
 P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

	<u>NFPA</u>
Health	3
Flammability	0
Reactivity	2
Special Notice	-

<u>HMIS</u>		
3	Health	0 - Minimal
0	Flammability	1 - Slight
2	Physical Hazard	2 - Moderate
J	PPE	3 - Serious
		4 - Severe
		J - Goggles, Gloves, Protective Clothing & Respirator.

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS

Sulfuric Acid

CAS#

7664-93-9

CONCENTRATION

43%

## SECTION 4 - FIRST AID MEASURES

Eye Contact..... Check for and remove contacts. Immediately wash eyes with water, lifting eyelids frequently. Wash with water for at least 15 minutes. Repeat if necessary. Consult doctor immediately!

Skin Contact..... Remove contaminated clothing, shoes and socks. Wash skin with soap and water. Get medical attention if irritation develops or persists.

Inhalation..... Remove to fresh air! If unconscious, have trained personnel administer oxygen. Get medical attention immediately.

Ingestion..... **DO NOT INDUCE VOMITING!** Give 2 - 3 glasses of water and get medical attention immediately!

## SECTION 5 - FIREFIGHTING MEASURES

Suitable Extinguishing Media: ..... Use foam, carbon dioxide, or water spray to extinguish flames.

Unsuitable Extinguishing Media:..... No further relevant information available.

Combustion Products: ..... Not considered to be an explosion hazard.

Fire Fighting Instructions..... As with any fire, wear sealed contained breathing apparatus, pressure demand MSHA/NIOSH (approved or equivalent) and full protective gear. Water runoff may cause environmental damage. Dike and collect water used to fight fire.

## SECTION 6 - ACCIDENTAL RELEASE MEASURE

Personal Precautions:..... Prevent contact with skin and eyes. See Section 8.

Environmental Precautions..... Prevent entry of product into drains, sewers, surface or ground water.

Methods for Cleaning Up:..... Clean up spills immediately. Absorb spill with inert material (e.g., dry sand or earth), then place in a suitable container for disposal.

## SECTION 7 - HANDLING AND STORAGE

Handling:..... Avoid contact with eyes, skin and clothing.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves, clothing and eye protection when handling this product.  
Use in well ventilated areas.

Storage..... Store in cool, dry place in original container and keep away from direct sunlight.  
Keep container closed when not in use.

Shelf-Life..... One to two years normally.

Storage Temperature..... 5 - 43°C (41 - 110°F)

## SECTION 8 EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering Controls..... Provide good ventilation to keep sulfuric acid levels below threshold values.

**Personal Protective Equipment (PPE):**

Eye Protection..... Wear full face shield or a least safety-goggles when handling this product. Contact lenses should not be worn.

Skin Protection..... Wear chemical resistant gloves, apron and boots. Full suit is recommended.

Respiratory Protection..... Chemical respirator required. Use approved/certified respirator.

**Exposure Limits**..... **Sulfuric Acid** TWA: 1 STEL: 3 (mg/m3) [Australia] Inhalation TWA: 1 (mg/m3) from OSHA PEL [United States]

Inhalation TWA: 1 STEL: 3 (mg/m3) from ACGIH (TLV) [United States] [1999] Inhalation TWA: 1 (mg/m3) from NIOSH [United States] Inhalation TWA: 1 (mg/m3) [United Kingdom] (UK).

Consult local authorities for acceptable exposure limits.

## SECTION 9 - PHYSICAL &amp; CHEMICAL PROPERTIES

Appearance..... Clear Liquid.

Odor..... No Odor.

Vapor Pressure..... Not Determined.

Vapor density (Air=1)..... Not Determined.

pH..... 1 - 2

Relative Density..... Not Determined.

Melting point/Freezing point:..... Not Determined / 30°F  
 Solubility in water..... 100%  
 Initial boiling point and range..... 220°F / Not Determined.  
 Flash Point..... Not Flammable.  
 Evaporation rate..... Not Determined.  
 Flammability (solid, gas):..... Not Flammable.  
 Upper/Lower flammability or explosive limits:..... Non-Flammable product.  
 Partition coefficient..... Not Determined.  
 Auto igniting temperature..... Product is not self igniting.  
 Decomposition temperature..... Not Determined.  
 Viscosity..... Not Determined.  
 Specific Gravity (water = 1)..... 1.3

**SECTION 10 - STABILITY & REACTIVITY**

Reactivity..... No dangerous reaction known under conditions of normal use.  
 Chemical Stability..... Stable.  
 Hazardous Polymerization..... Will not occur.  
 Incompatibilities..... Reactive with oxidizing agents, combustible material, organics, metals.  
 Decomposition Products..... None determined.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**Likely Routes of Exposure:**..... Absorbed through skin, Dermal contact, and eye contact.

**Acute symptoms and effects:**

Eye..... CORROSIVE! Will cause burning and eye damage!  
 Skin..... Exposure will cause irritation and burning.  
 Ingestion..... Severe gastric distress and damage.  
 Inhalation:..... Exposure may cause irritation.  
 Chronic Exposure:..... Not Determined.

**Toxicity Data:****LD50****LC50**

Sulfuric acid: Oral: Acute: 2140 mg/kg [Rat.]

Not Known

**Carcinogenicity:**

NTP:..... No Data Available.  
 IARC:..... Sulfuric Acid (Proven).  
 OSHA:..... Sulfuric Acid (Proven).

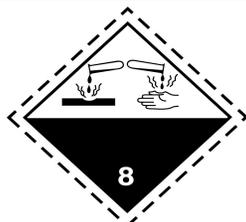
**SECTION 12 - ECOLOGICAL INFORMATION**

Ecotoxicity:..... Harmful to aquatic life. Product may affect the acidity (pH-factor) in water with risk of harmful effects to aquatic organisms.  
 Mobility in soil:..... No further relevant information available.  
 Degradability:..... Expected to readily biodegrade.  
 Bioaccumulation:..... No further relevant information available.

**SECTION 13 - DISPOSAL CONSIDERATION**

**SULFUR-SCRUB 43** is not considered a hazardous waste under Federal Hazardous Waste Regulations 40 CFR 261. Please be advised, however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local authorities regarding the proper disposal of this material.

(Note: Adding chemicals, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate, or otherwise inappropriate).

**SECTION 14 - TRANSPORTATION INFORMATION**

Required Shipping Label

**A. USA:** UN Number..... UN2796  
**D.O.T** UN Proper Shipping Name..... Sulfuric Acid Solution, 8. (Sulfuric Acid).  
 Packaging group..... II  
 D.O.T. Label..... UN2796, Sulfuric Acid, 8.  
 D.O.T. Placard..... UN2796  
 Freight Class Package..... Class 55  
**B. CANADA:** TDG..... Not regulated.  
**C. ENGLAND:** Approved Carriage List..... Not regulated.

- A. USA:** TSCA Status..... All ingredients listed on TSCA Inventory.  
SARA TITLE III, 302/303 EHS..... None  
SARA TITLE III, 304 HS..... None  
SARA TITLE III, 311/312..... None  
SARA TITLE III, 313..... None
- B. CANADA:** DSL/NDSL..... All ingredients are listed.  
WHMIS..... Not Classified.
- C. EC:** EINECS..... All ingredients are listed.

**SECTION 16 - OTHER INFORMATION**

For details on specific requirements, you should contact the appropriate agency in your state.

While Vapor Technologies Inc. believes the information contained herein to be true and accurate, it has relied on information provided by others. Vapor Tech makes no warranties, expressed or implied, as to the accuracy of the information contained herein or with respect to the results to be obtained from the use of this product.

Vapor-Tech disclaims all liability with respect to the use of this product, including without limitation, liability for injury to the user or third-party persons.

**Approval Date: 1/31/2022**