

Safety Data Sheet

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name : Sulfuric Acid

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Industrial and Commercial Uses

#### 1.3. Details of the supplier of the safety data sheet

Poolsure 1707 Townhurst Houston, TX 77043 T 800-858-7665

#### 1.4. Emergency telephone number

1-800-424-9300

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

#### Classification (GHS-US)

Skin Corr. 1A H314 Eye Dam. 1 H318 Carc. 1A H350

Full text of H-phrases: see section 16

#### 2.2. Label elements

#### **GHS-US** labeling

Hazard pictograms (GHS-US)



GHS05

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS-US) : P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P264 - Wash thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse

skin with water/shower

P304+P340 - If inhaled: Remove person to fresh air and keep 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/doctor P363 - Wash contaminated clothing before reuse

P405 - Store locked up

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 2.3. Other hazards

No additional information available

## 2.4. Unknown acute toxicity (GHS-US)

Not applicable

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

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Name	Product identifier	%	Classification (GHS-US)
Sulfuric acid	(CAS No) 7664-93-9	35-38	Carc. 1A, H350 Skin Corr. 1A, H314 Eye Dam. 1, H318

Full text of H-phrases: see section 16

#### **SECTION 4: First aid measures**

#### **Description of first aid measures**

: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give First-aid measures after inhalation

oxygen. Get medical attention.

First-aid measures after skin contact : Immediately flush skin with plenty of water. Remove contaminated clothing. Get medical

attention if symptoms occur. Wash clothing before reuse.

First-aid measures after eye contact Flush eyes with tempered water (60-100 °F) for 15 minutes minimum. Consult a physician or

other health care professional.

First-aid measures after ingestion Rinse mouth with large amounts of water. If swallowed, DO NOT induce vomiting. Give victim

large amounts of milk, egg whites, or water . Call a physician or poison control center

immediately. Never give anything by mouth to an unconscious person.

#### Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Corrosive to nose, throat and lungs.

Symptoms/injuries after skin contact Causes severe burns.

Symptoms/injuries after eye contact Corrosive to the eyes, may cause chemical burn, severe damage including blindness.

: Can burn mouth, throat and stomach. Symptoms/injuries after ingestion

#### Indication of any immediate medical attention and special treatment needed

No additional information available

#### **SECTION 5: Firefighting measures**

#### **Extinguishing media**

Suitable extinguishing media : Use any means suitable for extinguishing the surrounding fire. Water spray may be used to

keep fire exposed containers cool. Run-off from ruptured containers needs to be isolated,

prevent run-off from entering the environment.

Unsuitable extinguishing media : None.

#### Special hazards arising from the substance or mixture 5.2.

Fire hazard : When heated to decomposition, emits toxic fumes.

Product is not flammable but reative with alkali materials, combustible materials, organics and Explosion hazard water. May release explosive hydrogen gas inside storage tanks, drums tank cars and tank

trucks.

#### 5.3. Advice for firefighters

Protection during firefighting : Firefighters should wear full protective gear.

#### **SECTION 6: Accidental release measures**

#### Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

No additional information available

### For emergency responders

No additional information available

#### 6.2. **Environmental precautions**

Avoid release to the environment.

### Methods and material for containment and cleaning up

: Stop the flow of material, if this is without risk. For containment

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Methods for cleaning up

: For small spill : Absorb liquid with appropriate absorbent and place in sealed container for disposal.

Large spills: Stop leak at it's source if you are able to do so safely. Dike area to contain spill. Take precautions as necessary to prevent material from entering sewers or storm drains or contamination of ground and surface waters. Wear appropriate personal protective equipment as outlined in Section 8 during clean up operations. Extreme caution should be exercised during clean up operations as surfaces where material has been spilled are likely to become very slippery. Collect spilled material into containers using pumps or other means if it is possible to do so safely. Recover spilled material using chemically neutral absorbent such as ground clay or vermiculite, and collect into closed containers for disposal. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal.

#### 6.4. Reference to other sections

No additional information available

#### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes, skin and clothing.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, cool, well-ventilated area.

#### 7.3. Specific end use(s)

No additional information available

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

Sulfuric acid (7664-93-9)		
ACGIH	ACGIH TWA (mg/m³)	0.2 mg/m³ (thoracic fraction)
OSHA	OSHA PEL (TWA) (mg/m³)	1 mg/m³

#### 8.2. Exposure controls

Hand protection : Use acid resistant gloves.

Eye protection : Chemical goggles or safety glasses.
Skin and body protection : Wear suitable working clothes.

Respiratory protection : No respiratory protection required under normal handling conditions.

#### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Colorless
Odor : Odorless.

Odor threshold : No data available

pH : < '

Melting point No data available Freezing point : (16.3°F) to (-28°F) Boiling point :  $\approx$  (210°F) to (340°F) Flash point : No data available Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) No data available **Explosion limits** : No data available : No data available Explosive properties Oxidizing properties : No data available Vapor pressure : No data available 1.1 - 1.67 at (60°F) Specific gravity Relative vapor density at 20 °C : No data available

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Solubility	: Miscible with water
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

#### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

#### 10.3. Possibility of hazardous reactions

Will not occur.

#### 10.4. Conditions to avoid

None.

#### 10.5. Incompatible materials

Strong alkalis, ammonia, oxidizing agents, chlorates, powdered chromium, manganese, or aluminum, halogens (e.g., fluorine, chlorine) interhalogens (e.g., chlorine trifluoride), metal oxides, hydrides, azides, acetylides, sodium carbide.

## 10.6. Hazardous decomposition products

Hydrogen gas and oxides of sulfur SOx.

## **SECTION 11: Toxicological information**

## 11.1. Information on toxicological effects

Acute toxicity : Not classified

Sulfuric acid (7664-93-9)	
LD50 oral rat	2140 mg/kg
LC50 inhalation rat (mg/l)	510 mg/m³ (Exposure time: 2 h)
ATE US (oral)	2140.000 mg/kg
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
	pH: < 1
Serious eye damage/irritation	: Causes serious eye damage.
	pH: < 1
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: The International Agency for Research on Cancer (IARC) has determined that occupational exposure to strong inorganic-acid mists containing sulfuric acid is carcinogenic to humans. This product does not evolve acid mists under normal product use conditions.

Sulfuric acid (7664-93-9)	
IARC group	1 - Carcinogenic to humans
In OSHA Hazard Communication Carcinogen list	Yes
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified

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Aspiration hazard : Not classified

### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Sulfuric acid (7664-93-9)	
LC50 fish 1	> 500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

Sulfuric acid (7664-93-9)	
BCF fish 1	(no bioaccumulation)

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

#### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

### **SECTION 14: Transport information**

#### **Department of Transportation (DOT)**

In accordance with DOT

Transport document description : UN2796 Sulfuric acid (with not more than 51% acid), 8, II

UN-No.(DOT) : UN2796
Proper Shipping Name (DOT) : Sulfuric acid

with not more than 51% acid

Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive



Packing group (DOT) : II - Medium Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) : 202 DOT Packaging Bulk (49 CFR 173.xxx) : 242

Reportable Quantity (RQ): : 1000 pounds (454 kg) or 1720 gallons (based on 38% active ingredient)

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DOT Special Provisions (49 CFR 172.102)

: A3 - For combination packaging, if glass inner packaging (including ampoules) are used, they must be packed with absorbent material in tightly closed metal receptacles before packing in outer packaging.

A7 - Steel packaging must be corrosion-resistant or have protection against corrosion. B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized.

B15 - Packaging must be protected with non-metallic linings impervious to the lading or have a suitable corrosion allowance.

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

N6 - Battery fluid packaged with electric storage batteries, wet or dry, must conform to the packaging provisions of 173.159 (g) or (h) of this subchapter.

N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material.

T8 - 4 178.274(d)(2) Normal..... Prohibited

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

TP12 - This material is considered highly corrosive to steel.

DOT Packaging Exceptions (49 CFR 173.xxx) : 154
DOT Quantity Limitations Passenger aircraft/rail : 1 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 30 L

CFR 175.75)

**DOT Vessel Stowage Location** 

: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Other information : No supplementary information available.

## **SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

Sulfuric acid (7664-93-9)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313		
SARA Section 302 Threshold Planning Quantity (TPQ)	1000	
SARA Section 313 - Emission Reporting	1.0 % (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)	

### 15.2. US State regulations

#### Sulfuric acid (7664-93-9)

U.S. - Massachusetts - Right To Know List

U.S. - Minnesota - Hazardous Substance List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

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## **SECTION 16: Other information**

#### Full text of H-phrases:

Carc. 1A	Carcinogenicity Category 1A
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H350	May cause cancer

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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