

**Section 1: Product & Company Information**

**Product Identifier:** Sulfuric Acid 20-40% Solution

**Other Means of Identification**

Product Number: 125022  
125027  
125012  
125013

**Recommended Use and Restrictions on Use**

Recommended Use: For laboratory and manufacturing use only.  
Restrictions on Use: No data available.

**Manufacturer / Importer / Supplier / Distributor Information**

**Company Name:** CORECHEM Inc.

**Address:** 4320 Greenway Drive  
Knoxville, TN 37918 USA

**Information Telephone Number:** 1-865-524-4239

**Fax Number:** 1-865-524-3375

**Website:** www.corecheminc.com

**Contact Person:** Regulatory Manager

**E-mail:** regulatory@corecheminc.com

**Emergency Phone Number:** Chemtrec® 1-800-424-9300 / Outside USA 1-703-527-3887 (monitored 24 hours/day)

**Section 2: Hazards Identification**

**GHS Hazard Classification(s)**

In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012).

**Physical Hazard(s)**

Not classified.

**Health Hazard(s)**

Corrosion/Irritation, Skin - 1A  
(Corrosion) Damage/Irritation, Eye - 1  
Specific Target Organ Toxicity (STOT)-Respiratory Irritation, Single exposure - 3

**Environmental Hazard(s)**

Not classified.

**Label Elements**

**Signal Word**

**DANGER**

**Hazard Symbol(s)**



**Hazard Statement(s)**

H314: Causes severe skin burns and eye damage.  
H318: Causes serious eye damage.  
H335: May cause respiratory Irritation.

# SAFETY DATA SHEET

Print Date: March 19, 2025

## Precautionary Statements

### General

Not applicable.

### Prevention

P260: Do not breathe dust/fume/gas/mist/vapors/spray.  
P264: Wash face, hands and any exposed skin thoroughly after handling.  
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.

### Response

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.  
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.  
P321: Specific treatment (see supplemental first aid instructions on this label).  
P363: Wash contaminated clothing before reuse.

### Storage

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.  
P405: Store locked up.

### Disposal

P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Hazard(s) not otherwise classified (HNOC)**

None known.

## Section 3: Composition/Information on Ingredients

### Mixture

| Chemical Identity <sup>2</sup> | Common Name/Synonym(s)         | CAS # <sup>3</sup> | Weight % | Impurity or Stabilizing Additive |
|--------------------------------|--------------------------------|--------------------|----------|----------------------------------|
| Sulfuric Acid                  | H <sub>2</sub> SO <sub>4</sub> | 7664-93-9          | 20-40%   | No                               |

- Information regarding the composition and the percent ranges of the mixtures ingredients are not presented as it Confidential Business Information (CBI). Where a medical emergency exists (as determined by medical professional), timely disclosure of CBI is assured. The information omitted pertains to only the names of the substances and the concentration in the mixture (product) and can only be requested by a doctor/physician or Local/State/Provincial or Federal Authority.
- Non-hazardous ingredients are not presented as to protect the proprietary formula of the product.
- "—"Indicates ingredient is a mixture and contains multiple ingredients or may have no identifying CAS number.

## Section 4: First-Aid Measures

### General Information

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wash contaminated clothing before reuse. Never give anything by mouth to an unconscious person.

### Inhalation

If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.

### Skin Contact

Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention immediately! Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.

### Eye Contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

### Ingestion

## SAFETY DATA SHEET

Print Date: March 19, 2025

Rinse mouth. Do NOT induce vomiting. Immediately call a poison control center or doctor/physician.

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

#### Symptoms

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

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

#### Hazards

No data available.

#### Treatment

No data available.

## Section 5: Fire-Fighting Measures

### General Fire Hazards

No data available.

### Suitable (and Unsuitable) Extinguishing Media

#### Suitable Extinguishing Media

Extinguishing powder, alcohol resistant foam, carbon dioxide, water fog

#### Unsuitable Extinguishing Media

Avoid water in straight hose stream; will scatter and spread fire.

### Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

### Special Protective Equipment and Precautions for Firefighters

#### Special Fire-Fighting Equipment Procedures

Thermal decomposition can lead to release of irritating gases and vapors.

#### Special Protective Equipment for Fire-Fighters

As in any fire, wear self-contained breathing apparatus pressure-demand (OSHA/NIOSH approved or equivalent) and full protective gear.

## Section 6: Accidental Release Measures

### Personal Precautions, Protective Equipment and Emergency

#### Procedures

Evacuate spill area. Isolate hazard area and deny entry to unnecessary or unprotected personnel. Stay upwind and keep out of low area. Remove all possible sources of ignition in the surrounding area. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### Methods and Materials for Containment and Clean-Up

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

### Notification Procedures

No data available.

### Environmental Precautions

Prevent entry into sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release into the environment.

## Section 7: Handling and Storage

### Precautions for Safe Handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

### Conditions for Safe Storage, including any Incompatibilities

Keep container tightly closed. Store in a cool, dry, well-ventilated place. Store away from incompatible materials (See Section 10). Ensure that all local regulations regarding handling and storage facilities are followed.

## Section 8: Exposure Controls/Personal Protection

# SAFETY DATA SHEET

Print Date: March 19, 2025

## Control Parameters

### Occupational Exposure Limits

| Chemical Identity | Type | Value                 | Source                           |
|-------------------|------|-----------------------|----------------------------------|
| Sulfuric Acid     | TWA  | 0.2 mg/m <sup>3</sup> | US. ACGIH Threshold Limit Values |
| Sulfuric Acid     | PEL  | 1 mg/m <sup>3</sup>   | US OSHA Table Z-1                |

### Biological Limit Values

The product does not contain any relevant quantities of hazardous materials with assigned biological limit values.

## Appropriate Engineering Controls

Ensure that eyewash stations and safety showers are close to the workstation location.

## Individual protection measures, such as personal protective equipment (PPE)

### General Information

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

### Eye/Face Protection

Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

### Skin Protection

#### Hand Protection

Wear appropriate chemical resistant gloves.

#### Other

Wear appropriate chemical resistant clothing.

### Respiratory Protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge, or canister. Contact health and safety professional or manufacturer for specific information

### Hygiene Measures

When using, do not eat, drink, or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated footwear that cannot be cleaned. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Avoid contact with eyes, skin, and clothing.

## Section 9: Physical and Chemical Properties

### Appearance:

Physical State: Liquid  
 Color: No data available.

**Odor:** None

**Odor Threshold:** No data available.

**pH:** 1

**Melting Point/Freezing Point:** No data available.

**Initial Boiling Point and Boiling**

**Range:**

**Flash Point:** No data available.

**Evaporation Rate** (butyl acetate=1): No data available.

**Flammability (solid, gas):** No data available.

### Upper/Lower Limit on Flammability or Explosive Limits

Flammability Limit – Upper: No data available.

Flammability Limit – Lower: No data available.

Explosive Limit – Upper: No data available.

Explosive Limit – Lower: No data available.

**Vapor Pressure:** No data available.

**Vapor Density** (air =1): No data available.

**Relative Density** (water=1): No data available.

### Solubility(ies):

Solubility in water: Soluble in water.

Solubility (other): No data available.

## SAFETY DATA SHEET

Print Date: March 19, 2025

**Partition coefficient (n-octanol/water):** No data available.  
**Auto-Ignition Temperature:** No data available.  
**Decomposition Temperature:** No data available.  
**Viscosity:** No data available.

**Other Information:**

**Molecular Weight:** No data available.  
**Formula:** No data available.

### Section 10: Stability and Reactivity

**Reactivity**

No data available.

**Chemical Stability**

Material is stable under normal conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to Avoid**

Incompatible materials.

**Incompatible Materials**

Strong bases.

**Hazardous Decomposition Products**

Sulfur oxides.

### Section 11: Toxicological Information

**Information on routes of exposure**

**Ingestion:** Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

**Inhalation:** Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

**Skin Contact:** Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

**Eye Contact:** No data available.

**Information on Toxicological Effects**

**Acute Toxicity (List all possible routes of exposure)**

**Oral**

Sulfuric Acid: LD50 (Rat): 2,140 mg/kg

**Dermal**

No data available.

**Inhalation**

Sulfuric Acid: LD50 (Rat): 0.375 mg/kg – 4h

**Repeated Dose Toxicity**

No data available.

**Skin Corrosion/Irritation**

Causes severe skin burns.

**Serious Eye Damage/Eye Irritation**

Causes serious eye damage.

**Respiratory/Skin Sensitization**

Not classified.

**Carcinogenicity**

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans**

Group 1, Carcinogenic to humans.

**US. National Toxicology Program (NTP) Report on Carcinogens**

## SAFETY DATA SHEET

Print Date: March 19, 2025

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Germ Cell Mutagenicity**

**In Vitro**

No data available.

**In Vivo**

No data available.

**Reproductive Toxicity**

No data available.

**Specific Target Organ Toxicity - Single Exposure**

No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

No data available.

**Aspiration Hazard**

Not classified.

**Other Effects**

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

**Ecotoxicity**

**Acute Hazards to the Aquatic Environment**

**Fish**

Sulfuric Acid: LC50 (Brachydanio rerio): >500 mg/L - 96h

**Aquatic Invertebrates**

Sulfuric Acid: EC50 (Daphnia Magna, 24 h): 29 mg/l

**Toxicity to Aquatic Plants**

No data available.

**Chronic Hazards to the Aquatic Environment**

**Fish**

No data available.

**Aquatic Invertebrates**

No data available.

**Toxicity to Aquatic Plants**

No data available.

**Persistence and Degradability**

**Biodegradation**

There are no data on the degradability of this product.

**BOD/COD Ratio**

No data available.

**Bioaccumulative Potential**

**Bioconcentration Factor (BCF)**

No data available on bioaccumulation.

**Partition Coefficient n-octanol / water (log Kow)**

Sulfuric Acid: log Pow: -2.20 (estimated value)

**Mobility in Soil**

No data available.

**Other Adverse Effects**

No data available.

**Section 13: Disposal Considerations****Disposal Instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Contaminated Packaging**

Handle contaminated packages in the same way as the substance itself. Emptied containers may retain hazardous residue and explosive vapors. Keep away from heat, sparks, and flames. Do not cut, puncture, or weld on or near this container. Follow label warnings until container is thoroughly cleaned or destroyed.

**US Department of Transportation (DOT)**

UN Number: UN 2796  
UN Proper Shipping Name: Sulfuric Acid (*with not more than 51% acid*)  
Technical Name: -  
Hazard Class: 8  
Subsidiary Hazard Risk: -  
Packing Group: II  
DOT Label/Placard Exemptions: Not determined  
Special Provisions: A3, A7, B2, B15, IB2, N6, N34, TP2, TP12  
Packaging Exceptions: 49CFR 173.154  
Packaging Non-Bulk: 49CFR 173.202  
Packaging Bulk: 49CFR 173.242  
Reportable Quantity (RQ): 1,000lb (454kg)  
Marine Pollutant: No  
Poison Inhalation Hazard: No  
Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.  
Emergency Response Guidebook (ERG) #: 157

*Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.*

**Section 15: Regulatory Information****US Federal Regulations****Toxic Substance Control Act (TSCA), Chemical Substance Inventory, Section 8(b)**

This product or ingredient(s) are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substance List (40 CFR 302.4)**

The following chemical(s) in this material are subject to reporting levels established by CERCLA:

Sulfuric Acid (CAS# 7664-93-9) – 1000 lb

**Clean Air Act (CAA), Section 112(r)**

No chemical(s) in this material are subject to the reporting requirements of CAA.

**Emergency Planning and Community Right-To-Know Act (EPCRA)****EPCRA 302 Extremely Hazardous Substance**

The following chemical(s) in this material are subject to reporting levels established by SARA Title III, Section 302:

Sulfuric Acid (CAS# 7664-93-9)

**EPCRA 304 Emergency Response Notification**

The following chemical(s) in this material are subject to reporting levels established by SARA Title III, Section 304:

Sulfuric Acid (CAS# 7664-93-9)

**EPCRA 311/312 Emergency and Hazardous Materials Reporting**

Fire Hazard: No  
Sudden Release of Pressure: No  
Reactive: No  
Acute (Immediate) Health Hazard: Yes

# SAFETY DATA SHEET

Print Date: March 19, 2025

Chronic (Delayed) Health No  
Hazard:

## EPCRA 313 Toxic Chemical Release Inventory (TRI) Reporting

The following chemical(s) in this material are subject to reporting levels established by SARA Title III, Section 313: 1%

## US State Regulations

### California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

*Important Note: Due to the changing nature of regulatory requirements, the information in this document should NOT be considered all-inclusive or authoritative. Users should make their own investigations to determine the suitability of the information for their particular purposes. International, Federal, State and Local regulations should be consulted to determine compliance with all required reporting requirements.*

## Hazardous Materials Identification System (HMIS®) Classification

Health Hazard: 3

Chronic Health Hazard: /

Flammability: 0

Physical Hazard: 0

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

## National Fire Protection Association (NFPA 704) Rating

Health Hazard: 3

Fire Hazard: 0

Reactivity Hazard: 0

Special: N/A

(Hazard Rating: 0 – Minimal / 1 – Slight / 2 – Moderate / 3 – Serious / 4 – Severe)

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Current Revision: 01

Sections Revised: 2-5, 8-12

## Key to Abbreviations and

### Acronyms

ATE - Acute Toxicity Estimate

BCF - Bioconcentration Factor

EC50 - Effective concentration, 50%

IDHL - Immediately Dangerous to Life and Health

Kg - Kilogram

l - Liter

lb - Pound

LC50 - Lethal Concentration, 50%

LD50 - Lethal Dose, 50%

mg - milligram

ml - milliliter

N/A - Not Applicable

N/D - Not Determined

PEL - Permissible Exposure Limit

REL - Recommended Exposure Limit

STEL - Short-term Exposure Limit

TWA - Time weighted average

ACGIH - American Conference of Industrial Hygienists

AIHA - American Industrial Hygiene Association

BEI - Biological Exposure Indices

CAS - Chemical Abstracts Service

DOT - US Department of Transportation

EPA - US Environmental Protection Agency

GHS - Globally Harmonized System of Classification and Labelling of Chemicals

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

IBC - Intermediate Bulk Container

IMDG - International Maritime Dangerous Goods

NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Program

OSHA - US Occupational Health and Safety Administration

SARA - US EPA Superfund Amendments and Reauthorization Act

TSCA - US EPA Toxic Substances Control Act

UN - United Nations

## References

HSDB® - Hazardous Substances Data Bank

## Disclaimer

The information in this SDS was obtained from sources which we believe are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR

## SAFETY DATA SHEET

**Print Date:** March 19, 2025

DISPOSAL OF THE PRODUCT. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.