



## SAFETY DATA SHEET COPPER ACID D

### 1. Identification

#### Product identifier

**Product name** COPPER ACID D

**Product number** LDC-2901

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

**Supplier** SIFCO Applied Surface Concepts  
5708 E. Schaaf Road  
Independence, Ohio 44131  
U.S.A.  
Tel.: +1 216-524-0099  
Fax: +1 216-524-6331  
E-Mail: info@sifcoasc.com

#### Emergency telephone number

**Emergency telephone** CHEMTREC (United States) (800) 424-9300; CHEMTREC (International) +1 703-527-3887

### 2. Hazard(s) identification

#### Classification of the substance or mixture

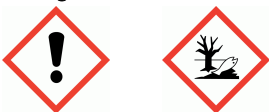
**Physical hazards** Not Classified

**Health hazards** Skin Irrit. 2 - H315

**Environmental hazards** Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

#### Label elements

##### Pictogram



**Signal word** Warning

**Hazard statements** H315 Causes skin irritation.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements** P264 Wash contaminated skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 If on skin: Wash with plenty of water.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P501 Dispose of contents/container in accordance with national regulations.  
P301+P310 If swallowed: Immediately call a poison center/doctor.  
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.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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### 3. Composition/information on ingredients

#### Mixtures

<b>COPPER SULPHATE</b>	<b>10-30%</b>
CAS number: 7758-98-7	
M factor (Acute) = 10	M factor (Chronic) = 10

**Classification**  
 Acute Tox. 4 - H302  
 Skin Irrit. 2 - H315  
 Eye Irrit. 2 - H319  
 Aquatic Acute 1 - H400  
 Aquatic Chronic 1 - H410

<b>SULPHURIC ACID ...%</b>	<b>&lt;1%</b>
CAS number: 7664-93-9	

**Classification**  
 Not Classified

The Full Text for all Hazard Statements are Displayed in Section 16.

### 4. First-aid measures

#### Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention.
<b>Ingestion</b>	Get medical attention immediately. Do not induce vomiting.
<b>Skin Contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes and get medical attention.
<b>Eye contact</b>	It is recommended that suitable facilities for quick drenching or flushing of the eyes and body be provided within the work area for immediate emergency use. Remove affected person from source of contamination. Make sure to remove any contact lenses from the eyes before rinsing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

<b>Inhalation</b>	Coughing, chest tightness, feeling of chest pressure.
<b>Ingestion</b>	May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.
<b>Skin contact</b>	May cause serious chemical burns to the skin.
<b>Eye contact</b>	Causes severe burns. May cause serious eye damage.

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

**Notes for the doctor** No specific recommendations.

### 5. Fire-fighting measures

#### Extinguishing media

**Suitable extinguishing media** The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

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

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**Specific hazards** Corrosive gases or vapors.

### Advice for firefighters

**Protective actions during firefighting** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

**Special protective equipment for firefighters** Use protective equipment appropriate for surrounding materials.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. Provide adequate general and local exhaust ventilation.

### Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

### Methods and material for containment and cleaning up

**Methods for cleaning up** Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if possible without risk. DO NOT touch spilled material! Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material. Collect and dispose of spillage as indicated in Section 13. Wash thoroughly after dealing with a spillage.

**Reference to other sections** Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

## 7. Handling and storage

### Precautions for safe handling

**Usage precautions** Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapors and spray/mists. Provide adequate general and local exhaust ventilation.

### Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight.

**Storage class** Corrosive storage.

### Specific end uses(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## 8. Exposure Controls/personal protection

### Control parameters

### Occupational exposure limits

#### **SULPHURIC ACID ...%**

Long-term exposure limit (8-hour TWA): OSHA 1 mg/m<sup>3</sup>

Long-term exposure limit (8-hour TWA): ACGIH 0.2 mg/m<sup>3</sup> thoracic fraction

A2

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OSHA = Occupational Safety and Health Administration.  
 ACGIH = American Conference of Governmental Industrial Hygienists.  
 A2 = Suspected Human Carcinogen.

### SULPHURIC ACID ...% (CAS: 7664-93-9)

<b>DNEL</b>	Industry - Inhalation; Short term local effects: 0.1 mg/m <sup>3</sup> Industry - Inhalation; Long term local effects: 0.05 mg/m <sup>3</sup>
<b>PNEC</b>	- Fresh water; 0.0025 mg/l - Sediment; 0.002 mg/l - Marine water; 0.00025 mg/l - STP; 8.8 mg/l - Sediment (Marinewater); 0.002 mg/l

#### Exposure controls

##### Protective equipment



##### Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.

##### Eye/face protection

Tight-fitting safety glasses.

##### Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. It is recommended that gloves are made of the following material: Nitrile rubber.

##### Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

##### Hygiene measures

Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.

##### Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Color</b>	Blue.
<b>Odor</b>	Odorless.
<b>pH</b>	pH (concentrated solution): 2.5-3.0
<b>Initial boiling point and range</b>	>100°C/212°F @
<b>Relative density</b>	1.15-1.25
<b>Other information</b>	Not available.

## 10. Stability and reactivity

### Reactivity

There are no known reactivity hazards associated with this product.

### Stability

Stable at normal ambient temperatures and when used as recommended.

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<b>Possibility of hazardous reactions</b>	Not determined.
<b>Conditions to avoid</b>	Avoid excessive heat for prolonged periods of time.
<b>Materials to avoid</b>	Strong alkalis.
<b>Hazardous decomposition products</b>	None at ambient temperatures.

### 11. Toxicological information

#### Information on toxicological effects

##### Acute toxicity - oral

**ATE oral (mg/kg)** 3,373.82

**Inhalation** Vapours irritate the respiratory system, and may cause coughing and difficulties in breathing.

**Ingestion** Causes severe burns. May cause chemical burns in mouth, esophagus and stomach.

**Skin Contact** May cause serious chemical burns to the skin.

**Eye contact** Causes serious eye damage. Immediate first aid is imperative.

**Acute and chronic health hazards** May cause burns in mucous membranes, throat, esophagus and stomach.

**Route of entry** Ingestion Inhalation Skin and/or eye contact

#### Toxicological information on ingredients.

#### COPPER SULPHATE

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 482.0

**Species** Rat

**ATE oral (mg/kg)** 500.0

##### Acute toxicity - dermal

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 2,000.0

**Species** Rat

**ATE dermal (mg/kg)** 2,000.0

#### SULPHURIC ACID ...%

##### Acute toxicity - oral

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 2,140.0

**Species** Rat

**ATE oral (mg/kg)** 2,140.0

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### 12. Ecological Information

**Ecotoxicity** Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.

#### Toxicity

**Toxicity** No data available.

#### Ecological information on ingredients.

#### COPPER SULPHATE

##### Acute aquatic toxicity

**LE(C)<sub>50</sub>** 0.01 < L(E)C<sub>50</sub> ≤ 0.1

**M factor (Acute)** 10

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: <1(copper ions) mg/l, Fish  
EC<sub>50</sub>, 48 hour: 0.024 mg/l, Daphnia magna

##### Chronic aquatic toxicity

**M factor (Chronic)** 10

#### SULPHURIC ACID ...%

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 42 mg/l, Fish

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, : 29 mg/l, Daphnia magna

#### Persistence and degradability

**Persistence and degradability** No data available.

#### Bioaccumulative potential

**Bio-Accumulative Potential** The product does not contain any substances expected to be bioaccumulating.

#### Mobility in soil

**Mobility** The product is soluble in water.

#### Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

#### Other adverse effects

**Other adverse effects** Not determined.

### 13. Disposal considerations

#### Waste treatment methods

**General information** Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

**Disposal methods** Dispose of waste and residues in accordance with local authority requirements.

### 14. Transport information

#### UN Number

**COPPER ACID D**

UN No. (DOT) 3082  
 UN No. (IMDG) 3082  
 UN No. (ICAO) 3082

**UN proper shipping name**

**Proper shipping name (DOT)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER SULPHATE)

**Proper shipping name (IMDG)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER SULPHATE)

**Proper shipping name (ICAO)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (COPPER SULPHATE)

**Transport hazard class(es)**

**IMDG Class** 9

**ICAO class/division** 9

**Transport labels****Packing group**

**DOT pack group** III

**IMDG packing group** III

**ICAO packing group** III

**Environmental hazards**

**Environmentally Hazardous Substance**

**Special precautions for user**

**EmS** F-A, S-F

**15. Regulatory information****US Federal Regulations****SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

Sulphuric Acid  
 1000 lbs

**CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**

Sulphuric Acid  
 Final CERCLA RQ: 1000 lbs  
 Copper Sulphate  
 Final CERCLA RQ: 10 lbs

**SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

Sulphuric Acid  
 EPCRA RQ: 1000 lbs

**SARA 313 Emission Reporting**

Copper Sulphate

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### CAA Accidental Release Prevention

Exempt.

### SARA (311/312) Hazard Categories

Acute  
Chronic

### OSHA Highly Hazardous Chemicals

Exempt.

### US State Regulations

#### California Proposition 65 Carcinogens and Reproductive Toxins

Exempt.

#### California Directors List of Hazardous Substances

Copper Sulphate  
Sulphuric Acid

### Inventories

#### US - TSCA

All ingredients are present.

### 16. Other information

<b>Revision date</b>	9/28/2015
<b>Revision</b>	1
<b>Hazard statements in full</b>	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.
<b>NFPA - health hazard</b>	Extremely hazardous, serious injury. (3)
<b>NFPA - flammability hazard</b>	Will not burn. (0)
<b>NFPA - instability hazard</b>	Normally stable. (0)

The Information in this data sheet is believed to be correct but neither we nor our employees or agents give any warranty or make any representation to the accuracy thereof and accept no liability for any loss, injury or damage which may result in it's use. The sole purpose of this data sheet is to provide guidance on the safe handling and use of the products to which it relates. It does not form part of any product specification nor part of any contract. It is not practical for the guidance and information in this data sheet to cover every conceivable application of a product and as we may not be aware of the use to which the products covered by this data sheet are to be put it remains the responsibility of the user to conduct it's own tests and to satisfy itself as to the suitability of the product.