

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixtures  
Product name : Alcoholic Sulfuric Acid  
Product code : LC10570

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : For laboratory and manufacturing use only.  
Recommended use : Laboratory chemicals  
Restrictions on use : Not for food, drug or household use

#### 1.3. Supplier

LabChem, Inc.  
1010 Jackson's Pointe Ct.  
Zelienople, PA 16063 - USA  
T 412-826-5230 - F 724-473-0647  
info@labchem.com - www.labchem.com

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or +1-703-741-5970

### SECTION 2: Hazard(s) identification

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

##### GHS US classification

|                                                             |                                                                                    |
|-------------------------------------------------------------|------------------------------------------------------------------------------------|
| Flammable liquids Category 2                                | H225 Highly flammable liquid and vapor                                             |
| Acute toxicity (oral) Category 3                            | H301 Toxic if swallowed                                                            |
| Acute toxicity (dermal) Category 3                          | H311 Toxic in contact with skin                                                    |
| Acute toxicity (inhalation:dust,mist) Category 3            | H331 Toxic if inhaled                                                              |
| Skin corrosion/irritation Category 2                        | H315 Causes skin irritation                                                        |
| Serious eye damage/eye irritation Category 2                | H319 Causes serious eye irritation                                                 |
| Carcinogenicity Category 1B                                 | H350 May cause cancer                                                              |
| Specific target organ toxicity (single exposure) Category 1 | H370 Causes damage to organs (central nervous system, kidneys, liver, optic nerve) |

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms  
(GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H225 - Highly flammable liquid and vapor  
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H350 - May cause cancer  
H370 - Causes damage to organs (central nervous system, kidneys, liver, optic nerve)

Precautionary statements (GHS US)

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion-proof electrical, ventilating, lighting equipment.  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P260 - Do not breathe mist, vapors, spray.  
P264 - Wash exposed skin thoroughly after handling.

# Alcoholic Sulfuric Acid

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
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 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.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.  
P311 - Call a POISON CENTER or doctor/physician.  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 - If swallowed, rinse mouth  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.  
P363 - Wash contaminated clothing before reuse.  
P370+P378 - In case of fire: Use carbon dioxide (CO2), dry extinguishing powder, alcohol resistant foam to extinguish  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container to comply with local, state and federal regulations.

### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None under normal conditions.

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

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name          | Product identifier  | %  | GHS US classification                                                                                                                |
|---------------|---------------------|----|--------------------------------------------------------------------------------------------------------------------------------------|
| Methanol      | (CAS-No.) 67-56-1   | 98 | Flam. Liq. 2, H225<br>Acute Tox. 3 (Oral), H301<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 3 (Inhalation), H331<br>STOT SE 1, H370 |
| Sulfuric Acid | (CAS-No.) 7664-93-9 | 2  | Skin Corr. 1A, H314<br>Eye Dam. 1, H318                                                                                              |

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. Suspected of causing cancer (Inhalation). Call a POISON CENTER or doctor/physician.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a poison center or doctor/physician. Wash contaminated clothing before reuse.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

### 4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

Symptoms/effects : Causes damage to organs (central nervous system, kidneys, liver, optic nerve).

Symptoms/effects after inhalation : Toxic if inhaled. Danger of serious damage to health by prolonged exposure through inhalation.

Symptoms/effects after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin. Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

# Alcoholic Sulfuric Acid

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Symptoms/effects after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

### 4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor.  
Explosion hazard : May form flammable/explosive vapor-air mixture.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

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

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

#### 6.1.1. For non-emergency personnel

Protective equipment : Protective goggles. Protective clothing. Gloves.  
Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing mist, Vapors, spray.  
Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

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

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.  
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No naked lights. No smoking. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist, vapors, spray.  
Hygiene measures : Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling.

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

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/... equipment.  
Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources, Ignition sources, incompatible materials, metals. Keep in fireproof place. Keep container tightly closed.  
Incompatible products : Strong bases. Strong oxidizers. metals.  
Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.  
Storage temperature : 4 – 30 °C

# Alcoholic Sulfuric Acid

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

|                                                   |                                                                                              |
|---------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Alcoholic Sulfuric Acid</b>                    |                                                                                              |
| No additional information available               |                                                                                              |
| <b>Sulfuric Acid (7664-93-9)</b>                  |                                                                                              |
| <b>USA - ACGIH - Occupational Exposure Limits</b> |                                                                                              |
| ACGIH TWA (mg/m <sup>3</sup> )                    | 0.2 mg/m <sup>3</sup> (Thoracic fraction)                                                    |
| <b>USA - OSHA - Occupational Exposure Limits</b>  |                                                                                              |
| OSHA PEL (TWA) (mg/m <sup>3</sup> )               | 1 mg/m <sup>3</sup>                                                                          |
| <b>USA - IDLH - Occupational Exposure Limits</b>  |                                                                                              |
| US IDLH (mg/m <sup>3</sup> )                      | 15 mg/m <sup>3</sup>                                                                         |
| <b>USA - NIOSH - Occupational Exposure Limits</b> |                                                                                              |
| NIOSH REL (TWA) (mg/m <sup>3</sup> )              | 1 mg/m <sup>3</sup>                                                                          |
| <b>Methanol (67-56-1)</b>                         |                                                                                              |
| <b>USA - ACGIH - Occupational Exposure Limits</b> |                                                                                              |
| Local name                                        | Methanol                                                                                     |
| ACGIH TWA (ppm)                                   | 200 ppm                                                                                      |
| ACGIH STEL (ppm)                                  | 250 ppm                                                                                      |
| Remark (ACGIH)                                    | TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI                       |
| Regulatory reference                              | ACGIH 2020                                                                                   |
| <b>USA - ACGIH - Biological Exposure Indices</b>  |                                                                                              |
| Local name                                        | METHANOL                                                                                     |
| Biological Exposure Indices (BEI)                 | 15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns |
| Regulatory reference                              | ACGIH 2020                                                                                   |
| <b>USA - OSHA - Occupational Exposure Limits</b>  |                                                                                              |
| Local name                                        | Methyl alcohol                                                                               |
| OSHA PEL (TWA) (mg/m <sup>3</sup> )               | 260 mg/m <sup>3</sup>                                                                        |
| OSHA PEL (TWA) (ppm)                              | 200 ppm                                                                                      |
| Regulatory reference (US-OSHA)                    | OSHA Annotated Table Z-1                                                                     |
| <b>USA - IDLH - Occupational Exposure Limits</b>  |                                                                                              |
| US IDLH (ppm)                                     | 6000 ppm                                                                                     |
| <b>USA - NIOSH - Occupational Exposure Limits</b> |                                                                                              |
| NIOSH REL (TWA) (mg/m <sup>3</sup> )              | 250 mg/m <sup>3</sup>                                                                        |
| NIOSH REL (TWA) [ppm]                             | 200 ppm                                                                                      |
| NIOSH REL (STEL) (mg/m <sup>3</sup> )             | 325 mg/m <sup>3</sup>                                                                        |
| NIOSH REL (STEL) [ppm]                            | 250 ppm                                                                                      |
| Remark (NIOSH)                                    | Skin                                                                                         |

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation. Material should be handled in a laboratory hood whenever possible.

#### 8.3. Individual protection measures/Personal protective equipment

##### Personal protective equipment:

Protective goggles. Gloves. Protective clothing. Face shield. Gas mask with filter type E.

##### Hand protection:

Wear protective gloves.

##### Eye protection:

# Alcoholic Sulfuric Acid

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chemical goggles or safety glasses

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

### Personal protective equipment symbol(s):



### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

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

|                                             |                                                              |
|---------------------------------------------|--------------------------------------------------------------|
| Physical state                              | : Liquid                                                     |
| Color                                       | : Colorless                                                  |
| Odor                                        | : Alcohol odour                                              |
| Odor threshold                              | : No data available                                          |
| pH                                          | : No data available                                          |
| Melting point                               | : No data available                                          |
| Freezing point                              | : No data available                                          |
| Boiling point                               | : No data available                                          |
| Flash point                                 | : No data available                                          |
| Relative evaporation rate (butyl acetate=1) | : No data available                                          |
| Flammability (solid, gas)                   | : Highly flammable liquid and vapor.                         |
| Vapor pressure                              | : No data available                                          |
| Relative vapor density at 20 °C             | : No data available                                          |
| Relative density                            | : No data available                                          |
| Solubility                                  | : Soluble in ethanol. Soluble in methanol. Soluble in water. |
| Log Pow                                     | : No data available                                          |
| Auto-ignition temperature                   | : No data available                                          |
| Decomposition temperature                   | : No data available                                          |
| Viscosity, kinematic                        | : No data available                                          |
| Viscosity, dynamic                          | : No data available                                          |
| Explosion limits                            | : No data available                                          |
| Explosive properties                        | : No data available                                          |
| Oxidizing properties                        | : 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

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions

Reacts vigorously with strong oxidizers and acids.

# Alcoholic Sulfuric Acid

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

### 10.5. Incompatible materials

Strong oxidizers. Strong bases. metals.

### 10.6. Hazardous decomposition products

Sulfur compounds. Carbon monoxide. Carbon dioxide. dimethyl sulfate.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Toxic if swallowed.  
Acute toxicity (dermal) : Toxic in contact with skin.  
Acute toxicity (inhalation) : Toxic if inhaled.

|                     |                           |
|---------------------|---------------------------|
| ATE US (oral)       | 101.944 mg/kg body weight |
| ATE US (dermal)     | 306.122 mg/kg body weight |
| ATE US (dust, mist) | 0.51 mg/l/4h              |

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

|               |                                                        |
|---------------|--------------------------------------------------------|
| LD50 oral rat | 2140 mg/kg body weight (Rat, Experimental value, Oral) |
| ATE US (oral) | 2140 mg/kg body weight                                 |

#### Methanol (67-56-1)

|                       |                                                                                                                     |
|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| LD50 oral rat         | 1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, Aqueous solution, Oral, 7 day(s)) |
| LC50 Inhalation - Rat | 128 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))                         |
| ATE US (oral)         | 100 mg/kg body weight                                                                                               |
| ATE US (dermal)       | 300 mg/kg body weight                                                                                               |
| ATE US (gases)        | 700 ppmV/4h                                                                                                         |
| ATE US (vapors)       | 3 mg/l/4h                                                                                                           |
| ATE US (dust, mist)   | 0.5 mg/l/4h                                                                                                         |

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Causes serious eye irritation.  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : May cause cancer.

#### Alcoholic Sulfuric Acid

|                                          |                                               |
|------------------------------------------|-----------------------------------------------|
| Additional information                   | Slowly forms dimethyl sulfate                 |
| IARC group                               | 2A - Probably carcinogenic to humans          |
| National Toxicology Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |

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

|                                          |                                                                                 |
|------------------------------------------|---------------------------------------------------------------------------------|
| Additional information                   | Strong inorganic acid mists containing sulfuric acid are carcinogenic to humans |
| National Toxicology Program (NTP) Status | Known Human Carcinogens                                                         |

Reproductive toxicity : Not classified

STOT-single exposure : Causes damage to organs (central nervous system, kidneys, liver, optic nerve).

#### Methanol (67-56-1)

|                      |                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------|
| STOT-single exposure | Causes damage to organs (liver, kidneys, central nervous system, optic nerve) (Dermal, oral). |
|----------------------|-----------------------------------------------------------------------------------------------|

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified  
Viscosity, kinematic : No data available

Likely routes of exposure : Inhalation. Skin and eye contact.  
Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.  
Symptoms/effects : Causes damage to organs (central nervous system, kidneys, liver, optic nerve).

# Alcoholic Sulfuric Acid

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

|                                     |                                                                                                                                                                   |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Symptoms/effects after inhalation   | : Toxic if inhaled. Danger of serious damage to health by prolonged exposure through inhalation.                                                                  |
| Symptoms/effects after skin contact | : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin. Causes skin irritation. |
| Symptoms/effects after eye contact  | : Causes serious eye irritation.                                                                                                                                  |
| Symptoms/effects after ingestion    | : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.                                                          |

### SECTION 12: Ecological information

#### 12.1. Toxicity

| Sulfuric Acid (7664-93-9) |                                                                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| LC50 fish 1               | 42 mg/l (96 h, Gambusia affinis)                                                                                                                         |
| EC50 Daphnia 1            | 29 mg/l (24 h, Daphnia magna)                                                                                                                            |
| Methanol (67-56-1)        |                                                                                                                                                          |
| LC50 fish 1               | 15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)                                 |
| EC50 Daphnia 1            | 18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect) |

#### 12.2. Persistence and degradability

| Alcoholic Sulfuric Acid         |                                                                    |
|---------------------------------|--------------------------------------------------------------------|
| Persistence and degradability   | Not established.                                                   |
| Sulfuric Acid (7664-93-9)       |                                                                    |
| Persistence and degradability   | Biodegradability: not applicable.                                  |
| Chemical oxygen demand (COD)    | Not applicable                                                     |
| ThOD                            | Not applicable                                                     |
| BOD (% of ThOD)                 | Not applicable                                                     |
| Methanol (67-56-1)              |                                                                    |
| Persistence and degradability   | Readily biodegradable in the soil. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.6 – 1.12 g O <sub>2</sub> /g substance                           |
| Chemical oxygen demand (COD)    | 1.42 g O <sub>2</sub> /g substance                                 |
| ThOD                            | 1.5 g O <sub>2</sub> /g substance                                  |

#### 12.3. Bioaccumulative potential

| Alcoholic Sulfuric Acid   |                                                                                 |
|---------------------------|---------------------------------------------------------------------------------|
| Bioaccumulative potential | Not established.                                                                |
| Sulfuric Acid (7664-93-9) |                                                                                 |
| Log Pow                   | -2.2 (Estimated value)                                                          |
| Bioaccumulative potential | Not bioaccumulative.                                                            |
| Methanol (67-56-1)        |                                                                                 |
| BCF fish 1                | 1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value) |
| Log Pow                   | -0.77 (Experimental value)                                                      |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500).                                  |

#### 12.4. Mobility in soil

| Methanol (67-56-1) |                                           |
|--------------------|-------------------------------------------|
| Surface tension    | No data available in the literature       |
| Log Koc            | -0.89 – -0.21 (log Koc, Calculated value) |
| Ecology - soil     | Highly mobile in soil.                    |

#### 12.5. Other adverse effects

Other information : Avoid release to the environment.

# Alcoholic Sulfuric Acid

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

- Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with local, state and federal regulations.
- Additional information : Handle empty containers with care because residual vapors are flammable.
- Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

- Transport document description : UN2924 Flammable liquids, corrosive, n.o.s., 3, II
- UN-No.(DOT) : UN2924
- Proper Shipping Name (DOT) : Flammable liquids, corrosive, n.o.s.
- Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
- Packing group (DOT) : II - Medium Danger
- Hazard labels (DOT) : 3 - Flammable liquid  
8 - Corrosive



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
- DOT Packaging Bulk (49 CFR 173.xxx) : 243
- DOT Symbols : G - Identifies PSN requiring a technical name
- DOT Special Provisions (49 CFR 172.102) : 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.  
T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3)  
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.  
TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
- DOT Packaging Exceptions (49 CFR 173.xxx) : 150
- DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L
- DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 5 L
- 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.
- DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"
- Other information : No supplementary information available.

#### Transport by sea

- Transport document description (IMDG) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Methanol, sulfuric acid), 3 (8), II
- UN-No. (IMDG) : 2924
- Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, CORROSIVE, N.O.S.
- Class (IMDG) : 3 - Flammable liquids

# Alcoholic Sulfuric Acid

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

|                           |                                            |
|---------------------------|--------------------------------------------|
| Packing group (IMDG)      | : II - substances presenting medium danger |
| Subsidiary risks (IMDG)   | : 8 - Corrosive substances                 |
| Limited quantities (IMDG) | : 1 L                                      |

### Air transport

|                                       |                                                                                    |
|---------------------------------------|------------------------------------------------------------------------------------|
| Transport document description (IATA) | : UN 2924 Flammable liquid, corrosive, n.o.s. (Methanol, sulfuric acid), 3 (8), II |
| UN-No. (IATA)                         | : 2924                                                                             |
| Proper Shipping Name (IATA)           | : Flammable liquid, corrosive, n.o.s.                                              |
| Class (IATA)                          | : 3 - Flammable Liquids                                                            |
| Packing group (IATA)                  | : II - Medium Danger                                                               |
| Subsidiary hazards (IATA)             | : 8 - Corrosive substances                                                         |

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

| Alcoholic Sulfuric Acid             |                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SARA Section 311/312 Hazard Classes | Physical hazard - Flammable (gases, aerosols, liquids, or solids)<br>Health hazard - Acute toxicity (any route of exposure)<br>Health hazard - Carcinogenicity<br>Health hazard - Skin corrosion or Irritation<br>Health hazard - Serious eye damage or eye irritation<br>Health hazard - Specific target organ toxicity (single or repeated exposure) |

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

|               |                   |     |
|---------------|-------------------|-----|
| Sulfuric Acid | CAS-No. 7664-93-9 | 2%  |
| Methanol      | CAS-No. 67-56-1   | 98% |

| Sulfuric Acid (7664-93-9)                                    |                                                                                                                                                                                                             |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 1000 lb                                                                                                                                                                                                     |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 1000 lb                                                                                                                                                                                                     |
| SARA Section 302 Threshold Planning Quantity (TPQ)           | 1000 lb                                                                                                                                                                                                     |
| SARA Section 311/312 Hazard Classes                          | Health hazard - Skin corrosion or Irritation<br>Health hazard - Serious eye damage or eye irritation                                                                                                        |
| Methanol (67-56-1)                                           |                                                                                                                                                                                                             |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 5000 lb                                                                                                                                                                                                     |
| SARA Section 311/312 Hazard Classes                          | Physical hazard - Flammable (gases, aerosols, liquids, or solids)<br>Health hazard - Acute toxicity (any route of exposure)<br>Health hazard - Specific target organ toxicity (single or repeated exposure) |

### 15.2. International regulations

#### CANADA

| Sulfuric Acid (7664-93-9)                             |  |
|-------------------------------------------------------|--|
| Listed on the Canadian DSL (Domestic Substances List) |  |
| Methanol (67-56-1)                                    |  |
| Listed on the Canadian DSL (Domestic Substances List) |  |

#### EU-Regulations

No additional information available

#### National regulations

# Alcoholic Sulfuric Acid

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

Listed as carcinogen on NTP (National Toxicology Program)

### 15.3. US State regulations

#### Alcoholic Sulfuric Acid

U.S. - California - Proposition 65 - Carcinogens List

Yes

U.S. - California - Proposition 65 - Developmental Toxicity

No

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

No

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

No

**WARNING:** This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 10/19/2020

Other information : None.

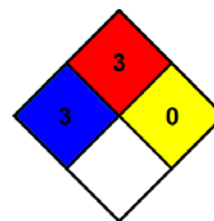
Full text of H-phrases: see section 16:

|      |                                         |
|------|-----------------------------------------|
| H225 | Highly flammable liquid and vapor       |
| H301 | Toxic if swallowed                      |
| H311 | Toxic in contact with skin              |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation                  |
| H318 | Causes serious eye damage               |
| H319 | Causes serious eye irritation           |
| H331 | Toxic if inhaled                        |
| H350 | May cause cancer                        |
| H370 | Causes damage to organs                 |

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



#### Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : H  
H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

SDS US LabChem

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.