

Safety Data Sheet **SULPHURIC ACID 5% in 25% Alcohol Bulk**

SDS no. DEUSD43J • Version 1.0 • Date of issue: 2024-11-27

SECTION 1: Identification

GHS Product identifier

Product name SULPHURIC ACID 5% in 25% Alcohol Bulk

Product number ASA5

Recommended use of the chemical and restrictions on use

Laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

National contact

Name Australian Biostain Pty Ltd
Address 16 Shipwright Road
5016 Largs North SA
Australia

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 1
- Flammable liquids, Cat. 2

Safety Data Sheet

SULPHURIC ACID 5% in 25% Alcohol Bulk

SDS no. DEUSD43J • Version 1.0 • Date of issue: 2024-11-27

- Corrosive to metals, Cat. 1
- Skin corrosion/irritation, Cat. 2

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

| | |
|------|-----------------------------------|
| H225 | Highly flammable liquid and vapor |
| H290 | May be corrosive to metals |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |

Precautionary statement(s)

| | |
|----------------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233 | Keep container tightly closed. |
| P234 | Keep only in original packaging. |
| P240 | Ground and bond container and receiving equipment. |
| P241 | Use explosion-proof [electrical/ventilating/lighting/...] equipment. |
| P242 | Use non-sparking tools. |
| P243 | Take action to prevent static discharges. |
| P264 | Wash hands thoroughly after handling. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of water/soap |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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/doctor/physician |
| P321 | Specific treatment (see ... on this label). |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P370+P378 | In case of fire: Use agents recommended in Section 5 of SDS for extinction |
| P390 | Absorb spillage to prevent material-damage. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P406 | Store in a corrosive resistant/... container with a resistant inner liner. |
| P501 | Dispose of contents/container to an approved waste disposal facility |

SECTION 3: Composition/information on ingredients

Mixtures

Components

| Component | CAS no. | Concentration |
|---|-----------|------------------|
| Water (EC no.: 231-791-2) | 7732-18-5 | >= 70 % (weight) |
| CLASSIFICATIONS: No data available. HAZARDS: No data available. | | |
| Ethanol (EC no.: 200-578-6; Index no.: 603-002-00-5) | 64-17-5 | < 25 % (weight) |

Safety Data Sheet

SULPHURIC ACID 5% in 25% Alcohol Bulk

SDS no. DEUSD43J • Version 1.0 • Date of issue: 2024-11-27

| | | |
|---|------------------|----------------------------|
| CLASSIFICATIONS: Flammable liquids, Cat. 2; Serious eye damage/eye irritation, Cat. 2A. HAZARDS: H225 - Highly flammable liquid and vapor; H319 - Causes serious eye irritation. | | |
| Sulfuric acid (EC no.: 231-639-5; Index no.: 016-020-00-8) | 7664-93-9 | < 4.9 % (weight) |
| CLASSIFICATIONS: Skin corrosion/irritation, Cat. 1A. HAZARDS: H314 - Causes severe skin burns and eye damage. [SCLs/M-factors/ATEs]: Skin Corr. 1A; H314: C ≥ 15 %; Skin Irrit. 2; H315: 5 % ≤ C < 15 %; Eye Irrit. 2; H319: 5 % ≤ C < 15 % | | |

SECTION 4: First-aid measures

Description of necessary first-aid measures

| | |
|-------------------------|---|
| General advice | First Aid Facilities: Maintain eyewash fountain in work area. |
| If inhaled | If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear. |
| In case of skin contact | Rinse with plenty of water. Get medical attention if irritation develops and persists. |
| In case of eye contact | If contact with the eye(s) occurs, wash with copious amounts of water for approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Obtain medical attention. |
| If swallowed | Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist. |

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Caution: Use of water spray when fighting fire may be inefficient.

Small fire: Use foam, dry chemical, CO₂ or water spray.

Large fire: Use foam, fog or water spray - Do not use water jets.

If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of water until well after fire is out.

Specific hazards arising from the chemical

Hazards from Combustion Products: Oxides of carbon.

FLAMMABLE: These products have a low flash point - Will be easily ignited by heat, sparks or flames at ambient temperatures. Vapours will form explosive mixtures with air. Vapours will travel to source of ignition and flash back. Fire may produce irritating, poisonous and/or corrosive gases. Containers may explode when heated. Many liquids are lighter than water. Many vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks). Vapours from run-off may create an explosion hazard.

Special protective actions for fire-fighters

SCBA and structural firefighter's uniform may provide limited protection. Fully-encapsulating, gas-tight suits should be worn for maximum protection.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Evacuate the area of all non-essential personnel. Remove ignition sources

Safety Data Sheet

SULPHURIC ACID 5% in 25% Alcohol Bulk

SDS no. DEUSD43J • Version 1.0 • Date of issue: 2024-11-27

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50m - All equipment used in handling the product must be earthed. Do not touch or walk through spilled material. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Vapour-suppressing foam may be used to control vapours. Absorb spill with earth, sand or other non-combustible material - Use clean, non-sparking tools to collect material and place it in loosely-covered metal or plastic containers for later disposal. Water spray may be used to knock down or divert vapour clouds.

SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

SECTION 7: Handling and storage

Precautions for safe handling

Do not breathe vapour. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Corrosiveness: May be corrosive to metals.

Keep in a cool, well-ventilated place Keep away from heat and other sources of ignition. Store away from oxidizing agents. Store away from strong acids. Keep containers securely sealed and protected against physical damage. Do not store in pits or basements where vapours may become entrapped. Do not store in aluminium containers. Take precautionary measures against static electricity discharges.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 64-17-5

Ethanol

AU/SWA (Australia): 1000 ppm; 1880 mg/m³ TWA inhalation;

CAS: 7664-93-9

Sulfuric acid

AU/SWA (Australia): 3 mg/m³ STEL inhalation; 1 mg/m³ TWA inhalation;

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

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

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Body protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be

Safety Data Sheet

SULPHURIC ACID 5% in 25% Alcohol Bulk

SDS no. DEUSD43J • Version 1.0 • Date of issue: 2024-11-27

made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

| | |
|--|--|
| Physical state | Liquid |
| Appearance | Colourless, transparent, volatile liquid. |
| Color | No data available. |
| Odor | Characteristic alcohol odour. |
| Odor threshold | No data available. |
| Melting point/freezing point | No data available. |
| Boiling point or initial boiling point and boiling range | No data available. |
| Flammability | Flammable |
| Lower and upper explosion limit/flammability limit | Flammable Limits - Lower: 3.5% - 100% Ethanol Flammable Limits - Upper: 19% - 100% Ethanol |
| Flash point | 12.7 °C - 95% Ethanol |
| Explosive properties | No data available. |
| Auto-ignition temperature | No data available. |
| Decomposition temperature | No data available. |
| Oxidizing properties | No data available. |
| pH | Acidic |
| Kinematic viscosity | No data available. |
| Solubility | Solubility in Water: Miscible. |
| Partition coefficient n-octanol/water (log value) | -0.31 Ethanol |
| Vapor pressure | No data available. |
| Evaporation rate | No data available. |
| Density and/or relative density | No data available. |
| Relative vapor density | No data available. |
| Particle characteristics | No data available. |

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Risk of ignition. Vapours may form explosive mixtures with air

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Vapours may form explosive mixture with air.

Will corrode metals. Will produce toxic gases on contact with cyanides, sulphides etc.

Hazardous Polymerization: Will not occur.

Conditions to avoid

Heat, sparks, flame and build-up of static electricity.

Incompatible materials

Oxidising agents, peroxides, acids, acid chlorides, acid anhydrides, alkali metals and ammonia.

Hazardous decomposition products

May liberate toxic fumes in fire producing carbon monoxide and or carbon dioxide.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Ingestion: May cause nausea, vomiting, headache, dizziness, gastric irritation and CNS depression.

Inhalation: Irritating to the mucous membranes and respiratory tract. Risk of absorption. May cause headaches, dizziness, nausea and possible CNS effects.

Skin corrosion/irritation

May cause irritation. Will have a degreasing action on the skin.

Serious eye damage/irritation

Causes serious eye damage. Eye contact will cause stinging, blurring, tearing, severe pain and chemical burns, resulting in possible blindness.

Respiratory or skin sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Ethanol [61-17-5] in alcoholic beverages are evaluated in the IARC Monographs (Vol. 96) as Group 1: Carcinogenic to humans, (based on effects of drinking alcoholic beverages).

Safe Work Australia does not classify ethanol as a carcinogen.

Reproductive toxicity

Not classified based on available information.

Specific target organ toxicity (STOT) - single exposure

Not classified based on available information.

Specific target organ toxicity (STOT) - repeated exposure

Not classified based on available information.

Aspiration hazard

Not classified based on available information.

Additional information

Health Hazard: The long term health effects of alcohol are well known. As this product is a laboratory reagent sold in small packages, it is

Safety Data Sheet

SULPHURIC ACID 5% in 25% Alcohol Bulk

SDS no. DEUSD43J • Version 1.0 • Date of issue: 2024-11-27

unlikely that it will be ingested in quantities sufficient to cause long term problems, although it may contribute to alcohol abuse if ingested frequently.

Though ethanaol is rapidly oxidized in the body and is therefore non-cumulative, ingestion of even moderate amounts causes lowering of inhibitions, often succeeded by dizziness, headache, or nausea. Larger intake causes loss of motor nerve control, shallow respiration, and in extreme cases unconsciousness and even death. Degree of intoxication is determined by concentration of alcohol in the brain. Of primary importance is the fact that intake of moderate amounts together with barbiturates or similar drugs is extremely dangerous and may even be fatal.

SECTION 12: Ecological information

Toxicity

Short Summary of Assessment of Environmental Impact: No ecological problems are to be expected when the product is handled and used with due care and attention.

Bioaccumulative potential

Low probability of bioaccumulation ($\log P(o/w) < 1$).

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Sewage disposal

Low probability of bioaccumulation ($\log P(o/w) < 1$).

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 1993

Class: 3

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Contains Ethanol 25% , Sulphuric Acid 5%)

Hazchem emergency action code (EAC)

•3YE

IMDG

UN Number: 1993

Class: 3

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Contains Ethanol 25% , Sulphuric Acid 5%)

IATA

UN Number: 1993

Class: 3

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID, N.O.S. (Contains Ethanol 25% , Sulphuric Acid 5%)

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

Preparation information

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)