



SAFETY DATA SHEET

SULPHURIC ACID 98%

Infosafe No.: 7EF8W
ISSUED Date : 03/10/2016
ISSUED by: JASOL NEW ZEALAND

CLASSIFIED AS HAZARDOUS

1. IDENTIFICATION

GHS Product Identifier

SULPHURIC ACID 98%

Product Code

2183270, 2181650, 2181660, 2181661, 2181520, 2181510, 2181540, 2181531, 2181535, 2181550, 2181700, 2181651

Company Name

JASOL NEW ZEALAND

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Emergency phone number

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(24 hour a day available)

0800 243622

E-mail Address

jasolnzorders@gwf.com.au

Recommended use of the chemical and restrictions on use

The manufacture of super phosphate fertiliser, inorganic and petro-chemicals, explosives and pigments. Component of heavy duty metal cleaners and pickles. In manufacture of rayon, cellulose film. As battery electrolyte and also in electroplating processes. pH control additive. Used as per manufacturer's directions.

Other Names

Name	Product Code
Dihydrogen sulphate, Dipping acid, Oil of vitriol, sulphuric acid	

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.
Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.

6.1D (Inhalation – vapours, dusts or mists) - Substance that is acutely toxic

6.1E (Oral) - Substance that is acutely toxic

6.7A Substance that is known or presumed to be a human carcinogen

6.9A (Single exposure) - Substance that is toxic to human target organs or systems

8.1A Substance that is corrosive to metals

8.2B Substance that is corrosive to dermal tissue

8.3A Substance that is corrosive to ocular tissue

9.1C Substance that is harmful in the aquatic environment

9.1D Substance that is slightly harmful to the aquatic environment or is otherwise designed for biocidal action

Signal Word (s)

DANGER

Hazard Statement (s)

H290 May be corrosive to metals.

H303 May be harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H350 May cause cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statement (s)

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

Pictogram (s)

Corrosion, Exclamation mark, Health hazard



Precautionary statement – Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P234 Keep only in original container.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash contaminated skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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.

P281 Use personal protective equipment as required.

Precautionary statement – Response

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

P310 Immediately call a POISON CENTER or doctor/physician.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P321 Specific treatment (see on this label).

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

Precautionary statement – Storage

P405 Store locked up.

P406 Store in corrosive resistant/ container with a resistant inner liner.

Precautionary statement – Disposal

P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion
Sulfuric Acid	7664-93-9	98%
Water	7732- 18-5	Remainder

4. FIRST-AID MEASURES

First Aid Measures

24 Hour Emergency Contact: 0800 CHEMCALL (0800 243 622)

New Zealand Poisons Information Centre: 0800 POISON (0800 764 766)

New Zealand Emergency Services: 111

Inhalation

- Remove victim from area of exposure - avoid becoming a casualty.
- Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered.
- If patient finds breathing difficult and develops a bluish discoloration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Ingestion

- Immediately rinse mouth with water.
- If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

Skin

- If spilt on large areas of skin or hair, immediately drench with running water and remove contaminated clothing. Continue to wash skin and hair with plenty of water (and soap if material is insoluble) until advised to stop by the Poisons Information Centre or a doctor.
- For skin burns, cover with a clean, dry dressing until medical help is available.

Eye contact

SPEED IS ESSENTIAL.

- Immediately wash in and around the eye area with large amounts of water for at least 15 minutes.
- Eyelids to be held apart.
- Urgently seek medical assistance and transport promptly to hospital or medical centre.

First Aid Facilities

Eye wash facilities and safety shower should be available.

Advice to Doctor

Important Symptoms and Effects, Both Acute and Delayed:

- Over exposure may result in severe skin, eye and respiratory burns with permanent lung and tissue damage. Strong inorganic acid mists containing sulphuric acid is classified as carcinogenic to humans (IARC Group 1).

2. Immediate Medical Attention and Special Treatment Needed:

- CORROSIVE POISONING TREATMENT: Immediate treatment preferably in a hospital is mandatory. In treating corrosive poisoning,
- DO NOT INDUCE VOMITING
- DO NOT ATTEMPT GASTRIC LAVAGE
- DO NOT ATTEMPT TO NEUTRALISE THE CORROSIVE SUBSTANCE.

Vomiting will increase the severity of damage to the oesophagus as the corrosive substance will again come in contact with it. Attempting gastric lavage may result in perforating either the oesophagus or stomach. Immediately dilute the corrosive substance by having the patient drink milk or water. If the trachea has been damaged tracheostomy may be required. For oesophageal burns begin broad-spectrum antibiotics and corticosteroid therapy. Intravenous fluids will be required if oesophageal or gastric damage prevents ingestion of liquids. Long-range therapy will be directed toward preventing or treating oesophageal scars and strictures.

5. FIRE-FIGHTING MEASURES

Fire Fighting Measures

Use an extinguishing agent suitable for the surrounding fire.

Specific Hazards Arising From The Chemical

Non-flammable. May evolve toxic gases (sulphur oxides) when heated to decomposition. May evolve flammable hydrogen gas in contact with some metals.

Hazchem Code

2P

Decomposition Temperature

Not available

Other Information

Advice for Firefighters:

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

Methods And Materials For Containment And Cleaning Up

Contain spillage, then cover / absorb spill with sodium bicarbonate or 50-50 mixture of sodium carbonate and calcium hydroxide. Collect for complete neutralisation and appropriate disposal.

Environmental Precautions

Prevent product from entering drains and waterways

Other Information

Reference to Other Sections:

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

- DO NOT allow clothing wet with material to stay in contact with skin.
 - Avoid all personal contact, including inhalation.
 - Wear protective clothing when risk of exposure occurs.
 - Use in a well-ventilated area.
- WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.

Conditions for safe storage, including any incompatibilities

Containers:

- DO NOT use aluminium or galvanised containers. Use lined metal can, lined metal pail/ can, plastic pail, polyliner drum, packing as recommended by manufacturer.
- Containers for low viscosity materials such as drums and jerricans must be of the non-removable head type.
- Where a can is to be used as an inner package, the can must have a screwed enclosure.

Storage:

- Check regularly for spills and leaks.
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff container

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

Material	TWA	STEL	Peak	
Sulphuric acid	Not available		Not available	Not available

Appropriate Engineering Controls

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

Personal Protective Equipment

Eye / Face:

- Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories.
- Spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure.
- Chemical goggles. Whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted.
- Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these give face protection.
- Alternatively a gas mask may replace splash goggles and face shields.

Hands:

- Elbow length PVC gloves. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as frequency and duration of contact, chemical resistance of glove material, glove thickness and dexterity.
- When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.

Body:

- Wear coveralls. When using large quantities or where heavy contamination is likely, wear rubber boots and a PVC apron. In a laboratory situation, wear a laboratory coat.

Respiratory:

- Where an inhalation risk exists, wear a Type B (Inorganic gases and vapours) respirator. If spraying, with prolonged use, or if in confined areas, wear an Air-line respirator

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Liquid

Appearance

Liquid

Colour

Colourless to brown

Odour

Faint acid odour

Decomposition Temperature

Not available

Melting Point

Not available

Freezing Point

5°C

Boiling Point

310°C

Specific Gravity

1.84 @ 20°C

pH

pH (1% solution):<1

pH (as supplied):<1

Vapour Pressure

Not available

Vapour Density (Air=1)

Not available

Evaporation Rate

Not available

Viscosity

Not applicable

Volatile Component

Not available

Flash Point

Not applicable

Auto-Ignition Temperature

Not applicable

Explosion Limit - Upper

Not available

Explosion Limit - Lower

Not available

Molecular Weight

Not applicable

10. STABILITY AND REACTIVITY

Reactivity

Reacts exothermically on dilution with water. Reacts exothermically with strong alkali materials. Corrodes metals.

Chemical Stability

Stable at ambient conditions of use and storage.

Conditions to Avoid

Avoid contact with foodstuffs. Avoid exposure to moisture. Avoid contact with water.

Incompatible materials

Avoid contact with foodstuffs. Avoid exposure to moisture. Avoid contact with water.

Hazardous Decomposition Products

Releases sulphur dioxide at extremely high temperatures.

Possibility of hazardous reactions

Polymerization is not expected to occur. Exothermic reaction with water which may cause violent spattering. Attacks many metals liberating explosive hydrogen gas

11. TOXICOLOGICAL INFORMATION

Toxicology Information

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. The symptoms or effects that may arise if the product is mishandled and if overexposure occurs are:

Ingestion

Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

Inhalation

Breathing in mists or aerosols will produce respiratory irritation. May cause pulmonary oedema at high concentrations. Overexposure may result in death.

Skin

Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns

Eye

A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury

Skin corrosion/irritation

-Skin corrosion/irritation: Severe irritant (rabbit).

Serious eye damage/irritation

Severe irritant (rabbit).

Health Hazard

Sulphuric acid (98% solution) is extremely corrosive, irritating and toxic leading to severe burns and rapid destruction of tissue.

Chronic Effects

For the component Sulphuric acid: Repeated overexposure may lead to chronic conjunctivitis, lung damage and dental erosion. The International Agency for Research on Cancer (IARC) have concluded that occupational exposure to strong inorganic acid mists containing sulphuric acid is carcinogenic to humans, causing cancer of the larynx and to a lesser extent, the lung. No direct link has been established with sulphuric acid, itself, and cancer in humans. Exposure to any mist or aerosol during the use of this product should be avoided and exposure should not exceed the exposure standard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Sulphuric acid is harmful to aquatic life in very low concentrations. May cause corrosion and deterioration of many common materials found in the environment (e.g. steel, limestone)

Persistence and degradability

No information provided.

Mobility

No information provided.

Bioaccumulative Potential

No information provided.

Other Adverse Effects

No information provided.

13. DISPOSAL CONSIDERATIONS

Local Legislation

Recycle where possible otherwise ensure that:

- Licenced contractors dispose of the product and its container.
- Disposal occurs at a licenced facility.

14. TRANSPORT INFORMATION

U.N. Number

1830

UN proper shipping name

SULPHURIC ACID

Transport hazard class(es)

8

Sub.Risk

None

Packing Group

II

Hazchem Code

2P

IERG Number

40

UN Number (Sea Transport)

1830

UN Number (Road Transport)

1830

UN Number (Air Transport, ICAO)

1830

IATA/ICAO Hazard Class

8

IATA/ICAO Packing Group

II

IATA/ICAO Sub Risk

None

LIMITED QUANTITY - Max Net Quantity/Pkge

1L

IMDG UN No

1830

IMDG Hazard Class

8

IMDG Sub. Risk

None

IMDG Pack. Group

II

IMDG Subsidiary Risk

None

IMDG Marine pollutant

No

IMDG EMS

Fire: F-A, Spill: S-B

15. REGULATORY INFORMATION

National and or International Regulatory Information

Sulphuric acid (CAS: 7664-93-9) is found on the following regulatory lists;

"GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List", "International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Scheduled Toxic Substances", "New Zealand Inventory of Chemicals (NZIoC)", "New Zealand Workplace Exposure Standards (WES)", "OECD Representative List of High Production Volume (HPV) Chemicals", "United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances - Table II", "United Nations List of Precursors and Chemicals Frequently used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control - Table II".

Water (CAS: 7732-18-5) is found on the following regulatory lists;

"IMO IBC Code Chapter 18: List of products to which the Code does not apply", "New Zealand Inventory of Chemicals (NZIoC)", "OECD Representative List of High Production Volume (HPV) Chemicals".

Specific advice on controls required for materials used in New Zealand can be

HSNO Approval Number

HSR001572

16. OTHER INFORMATION

Date of preparation or last revision of SDS

03/10/2016

Technical Contact Numbers

24 Hour Emergency Contact: 0800 CHEMCALL (0800 243 622)

New Zealand Poisons Information Centre: 0800 POISON (0800 764 766)

New Zealand Emergency Services: 111

Other Information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Jasol NZ cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Jasol NZ representative or Jasol NZ at the contact details on page 1.

Jasol NZ's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

END OF SDS

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