

AUSTRALIAN CHEMICAL REAGENTS
SAFETY DATA SHEET

Date Prepared: June 2026
Version No: 2

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Zimmerman Reinhart Reagent
Product Code: 2594
Other Names: Nil
Uses: Analytical Reagent

Supplier: Australian Chemical Reagents
38-50 Bedford Street Gillman SA 5013

Contacts: Telephone: 61 08 84402000
Fax: 61 08 84402001
Emergency Phone: [CHEMCALL 1800 127 406 - Australia](tel:1800127406) [+64-4-917-9888 - International](tel:+6449179888)

2. HAZARDS INFORMATION

GHS Classification

Skin Corrosion/Irritation: Category 1
Serious Eye Damage/Irritation: Category 1
Corrosive to metals: Category 1

Signal Word(s)

DANGER

Pictogram(s)**Hazard Statement (s)**

H290 May be corrosive to metals
H314 Causes severe skin burns and eye damage.

**Precautionary Statement(s)
Preventative**

P234 Keep only in original container
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage	P405 Store locked up. P406 Store in corrosive resistant/... container with a resistant inner liner.
Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients :

Chemical Entity	CAS No	Proportion
Sulphuric Acid	[7664-93-9]	14%
Phosphoric Acid	[7664-38-2]	11%
Manganese Sulphate	[10034-96-5]	7%
Water	[7732-18-5]	to 100%

4. FIRST AID MEASURES

Safety showers and eye wash facilities should be provided.

Swallowed :

If conscious wash out mouth with water. Seek medical advice. Show this SDS to medical practitioner.

Eye :

Immediately hold eyelids open and flood with water for at least 15 minutes. Obtain medical aid. Show this SDS to medical practitioner.

Skin :

Remove contaminated clothing. Immediately wash skin thoroughly with water and mild soap. Seek medical advice if irritation persists. Show this SDS to medical practitioner. Launder clothing before reuse.

Inhaled :

Remove from contaminated air. Maintain breathing with artificial respiration if necessary. Seek medical assistance. Show this SDS to a doctor.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:

Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Hazards From Combustion Products:

Sulphuric acid and its solutions will not burn or support combustion. However contact with aluminium, zinc or tin may generate explosive hydrogen gas. Decomposition products include sulphur and phosphorus oxides.

Precautions For Fire Fighters and Special Protective Equipment:

Fire fighters and others who may be exposed to combustion products during fire should wear full protective clothing including positive pressure self-contained breathing apparatus (SCBA). Wear SCBA with full face-piece, operated in positive pressure mode when fighting fires.

Hazchem Code: 2X

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures:

Prevent from entering waterways. Restrict access to area. Remove chemicals that can react with the spilled material.

Methods and materials for containment and clean up:

Wear suitable appropriate protective clothing. Use inert material such as sand or earth to contain spill or leak. Neutralise with sodium bicarbonate. Absorb spills with chemical absorber or vermiculite and dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling:

Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure. Do not pipette by mouth.

Conditions for Safe Storage:

Store sealed in original container in a cool well ventilated situation away from foods and other chemicals. Do not store in direct sunlight. Observe good hygiene and housekeeping practices.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards:

Safe Work Australia – Sulphuric acid 1mg/m³ TWA 3mg/m³ STEL
Phosphoric acid 1mg/m³ TWA 3mg/m³ STEL

Biological Limit Values: No data available.

Engineering Controls:

Not required with normal use. If mists are likely to be generated maintain atmospheric concentrations well below exposure standards with extraction ventilation.

Personal Protective Equipment (PPE):

The use of nitrile or neoprene gloves complying with AS 2161 and the use of faceshield, chemical goggles or safety glasses with side shield protection complying with AS/NZS 1337 is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance :	Clear liquid
Odour:	Nil
pH:	1
Boiling Point (°C) :	Not applicable
Freezing/melting Point:	Not applicable
Vapour Pressure (mm of Hg @ 25°C) :	Not applicable
Vapour Density:	Not applicable
Specific Gravity :	1.2
Flash Point (°C) :	Not flammable
Flammability Limits (%) :	Not flammable
Solubility in Water (g/L) :	Soluble

10. STABILITY AND REACTIVITY

Chemical stability:

Stable.

Conditions to avoid:

Excessive heat.

Incompatible materials:

Alkalis, hypochlorites, organic materials, sulphites, sulphides, cyanides, aluminum, phosphorus, tin and zinc.

Hazardous decomposition products:

Refer to section 5 (Fire Fighting Measures).

Hazardous reactions:

Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Health Effects:

Swallowed : Very corrosive to tissue. Causes severe burns. May cause severe injury or death. For sulphuric acid LD50 oral - rat 2140mg/kg. For phosphoric acid LD50 oral - rat 1530 mg/kg.

Eye : Very corrosive to eye tissue. May cause permanent damage including loss of sight. For sulphuric acid 100mg rinse produced severe irritation of rabbit eyes. For phosphoric acid 119 mg produced severe irritation of rabbit eyes.

Skin : Very corrosive to skin tissue. Harmful. Causes severe burns. May produce severe necrosis.

Inhaled : Not considered a hazard with normal laboratory use. For sulphuric acid LC50 inhalation - rat 510mg/m³/2hours. Inhalation of mists may be fatal as a result of spasm, inflammation and oedema of larynx and bronchi, chemical pneumonitis and pulmonary oedema.

Chronic Effects: Prolonged exposure to sulphuric acid mists may cause erosion of teeth, chronic irritation of eyes and respiratory system. Mists and vapours are suspected carcinogenic agents.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

No data available.

Persistence and degradability:

No data available.

Mobility:

No data available.

13. DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state and local environmental regulations.

14. TRANSPORT INFORMATION

UN Number: 1760

UN Proper Shipping Name: CORROSIVE LIQUID, NOS – (Sulphuric acid 14%, Phosphoric acid 11%)

Class and subsidiary risk(s): 8

Packing Group: 11

Hazchem Code: 2X

Special precautions for user : Nil

15. REGULATORY INFORMATION

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP):

Schedule 6

16. OTHER INFORMATION

Disclaimer:

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END of SDS