1. IDENTIFICATION

Product Identifier: Campbells Thiocal

Other Means of Identification: Calcium thiosulphate solutions; calcium thiosulphate, 20%≤conc<30%, aqueous solutions; thiosulfuric acid (H₂S₂O₃), calcium salt (1:1), 20%≤conc<30%, aqueous solutions; calcium thiosulfate, 20%≤conc<30%, aqueous solutions; CaTs (=calcium thiosulphate, 20%≤conc<30%, aqueous solutions)

Recommended Use of the Chemical and Restrictions on Use: Fertiliser

Details of Manufacturer or Importer: Campbells Fertilisers Australasia
18 Raymond Road, Laverton North, Victoria, 3026
Phone: (03) 9931 2211
Fax: (03) 9931 2201
www.campbellsfert.com.au

Emergency Telephone Number: (03) 9931 2211 (business hours only 8.30 am to 5.00 pm)
0418 350 726 (after business hours)

2. HAZARD(S) IDENTIFICATION

GHS Classification: Not classified as hazardous according to the GHS.

ADG Classification: Based on available information, not classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition

SUSMP Classification: Not scheduled

3. COMPOSITION AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number:</th>
<th>Concentration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium thiosulphate</td>
<td>10124-41-1</td>
<td>20%≤C&lt;30%</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of Necessary First Aid Measures:

Inhalation: Remove casualty to fresh air. If respiratory problems occur, seek medical advice.

Skin Contact: Flush skin with water. Seek medical advice if irritation persists.
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Eye Contact: Flush eyes with water. Do not apply neutralizing agents. Seek advice from an ophthalmologist if irritation persists.
Ingestion: Rinse mouth with water. Seek medical advice if you feel unwell.
First Aid Facilities: Ensure washing facilities, including an eyewash, are available and maintained.

Symptoms caused by Exposure:
Inhalation: No effects known.
Skin Contact: No effects known.
Eye Contact: No effects known.
Ingestion: After ingestion of high quantities, symptoms may include gastrointestinal complaints, diarrhea.

Medical Attention and Special Treatment:
None specified.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Equipment: Use any means suitable for extinguishing surrounding fire.
Specific Hazards arising from the Chemical: On heating/burning, release of toxic and corrosive gases/vapours (sulphur oxides).

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:
No naked flames.
Non-emergency personnel: wear appropriate personal protective equipment as specified in Section 8.
Emergency responders: wear gloves, safety glasses, protective clothing as specified in Section 8.

Environmental Precautions:
Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Take account of toxic/corrosive precipitation water.

Methods and Materials for Containment and Cleaning Up:
Take up liquid spill into inert absorbent material, e.g. sand/earth. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.
7. HANDLING AND STORAGE

Precautions for Safe Handling:
- Keep away from naked flames/heat. Observe normal hygiene standards.
- Keep container tightly closed. Remove contaminated clothing immediately.

Conditions for Safe Storage, including any Incompatibilities:
- Storage temperature <49°C. Keep container in a well-ventilated place.
- Keep out of direct sunlight. Meet the legal requirements.
- Keep away from heat sources, (strong) acids, oxidizing agents.

Suitable packaging material: no data available.
Non suitable packaging material: copper, zinc, bronze, carbon steel.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:

### DNEL - Workers
calcium thiosulphate

<table>
<thead>
<tr>
<th>Effect level (DNEL/DMEL)</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL</td>
<td>Long-term systemic effects inhalation</td>
<td>351 mg/m³</td>
</tr>
</tbody>
</table>

### DNEL – General Population
calcium thiosulphate

<table>
<thead>
<tr>
<th>Effect level (DNEL/DMEL)</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL</td>
<td>Long-term systemic effects inhalation</td>
<td>104 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Long-term systemic effects oral</td>
<td>14 mg/kg bw/day</td>
</tr>
</tbody>
</table>

### PNEC
calcium thiosulphate

<table>
<thead>
<tr>
<th>Compartments</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh water</td>
<td>0.83 mg/L</td>
</tr>
<tr>
<td>Marine water</td>
<td>0.083 mg/L</td>
</tr>
<tr>
<td>STP</td>
<td>106.5 mg/L</td>
</tr>
</tbody>
</table>

Biological Monitoring: Not available.

Control Banding: Not available.

Engineering Controls:
- Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Individual Protection Measures e.g.
- Eye and Face Protection:
  - Wear safety glasses.
- Skin Protection:
  - Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke during work.
(PPE): Wear neoprene gloves and protective clothing.

Respiratory Protection: Respiratory protection not required in normal conditions.

Thermal Hazards: None specified.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colourless liquid
Odour: Mild odour
Vapour Pressure (mm Hg): Not available
Relative Density: 1.25
Absolute Density: 1250 kg/m³
Boiling Point: Not available
Melting Point: Not available
Solubility (water): Complete
Specific Gravity: Not available
pH: 6.5-8.0
Flash Point: Not applicable
Flammability: Non combustible
Auto-Ignition Temperature: Not applicable
Octanol/Water Partition Coefficient: Not available
Dynamic viscosity: 0.0026 mPa.s; 25°C

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of storage and handling.
Possibility of Hazardous Reactions: No data available
Conditions to Avoid: Keep away from naked flames/heat.
Incompatible Materials: (Strong) acids, oxidizing agents, copper, zinc, bronze, carbon steel.
**11. TOXICOLOGICAL INFORMATION**

### Toxicological Information of the Mixture:

**Acute Toxicity:**

For calcium thiosulphate solutions

No data available

For calcium thiosulphate

LD$_{50}$ Rat (female) Oral >2000 mg/kg bw (OECD425, experimental value)

LD$_{50}$ Rabbit (male, female) Dermal (24 h) >2000 mg/kg bw (OECD402, read-across value)

LC$_{50}$ Rat (male, female) Inhalation Dust (4 h) 5.5 mg/L air (OECD403, read-across value)

LC$_{50}$ Rat (male, female) Inhalation Dust (1 h) >22 mg/L (OECD403, read-across value)

LC$_{50}$ Rat (male, female) Inhalation Aerosol (4 h) 2.6 mg/L air (OECD403, read-across value)

**Skin Corrosion/Irritation:**

For calcium thiosulphate solutions

No data available

For calcium thiosulphate

Skin (4 h) Rabbit - Not irritating (OECD 404, read-across value, time point: 24, 48, 72 h)

**Serious Eye Damage/Irritation:**

For calcium thiosulphate solutions

No data available

For calcium thiosulphate

Eye Rabbit - Not irritating (OECD 405, read-across value, time point: 24, 48, 72 h)

**Respiratory or Skin Sensitisation:**

For calcium thiosulphate solutions

No data available

For calcium thiosulphate

Dermal (on the ears) Mouse (female) - Not sensitizing (OECD 429, read-across value)

**Germ Cell Mutagenicity:**

In vivo

For calcium thiosulphate solutions

No data available

**Carcinogenicity:**

For calcium thiosulphate solutions

No data available

For calcium thiosulphate

Oral (drinking water), mouse (male/female) (24 months) >2500 mg/kg
bw/day (other method, read-across value). No effect.

Reproductive Toxicity:  
*For calcium thiosulphate solutions*
No data available

*For calcium thiosulphate*
Effects on fertility:
NOAEL (P/F1/F2) rat (male/female) (104 wks) 1493 mg/kg bw/day
(other method, read-across value)

Specific Target Organ Toxicity (STOT) - Single Exposure:  
No data available

Specific Target Organ Toxicity (STOT) - Repeated Exposure:  
*For calcium thiosulphate solutions*
No data available

*For calcium thiosulphate*
Oral (repeated exposure), NOAEL (local effects) rat (male/female) 169 mg/kg bw/day (other method, read-across value). No effect.
Oral (repeated exposure), NOAEL (systemic effects) rat (male/female) 1493 mg/kg bw/day (other method, read-across value). No effect.

Aspiration Hazard:  
No data available

Likely Routes Of Exposure
Inhalation:  
No effects known.
Skin:  
No effects known.
Eye:  
No effects known.
Ingestion:  
After ingestion of high quantities, symptoms may include gastrointestinal complaints, diarrhea.

Delayed and Immediate Effects from Short and Long Term Exposure:  
None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity:  
*For calcium thiosulphate solutions*
No data available

*For potassium thiosulphate*
Acute toxicity to fish:
LC₅₀ *Lepomis macrochirus* (96 h) 510 mg/L (static system, fresh water, other method, read-across value, nominal concentration)

Acute toxicity to invertebrates:
EC₅₀ *Daphnia magna* (48 h) 230 mg/L (static system, fresh water, other method, read-across value, nominal concentration)
Toxicity to algae and other aquatic plants:
EC₅₀ *Pseudokirchneriella subcapitata* (72 h) >100 mg/L (static system, fresh water, OECD 201, read-across value, GLP)
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Persistence and Degradability: Biodegradability: not applicable
Bioaccumulative Potential: Not bioaccumulative
Mobility in Soil: No (test) data available

13. DISPOSAL CONSIDERATIONS

Product Disposal: Remove waste in accordance with local and/or national regulations. Treat using the best available techniques before discharge into drains or the aquatic environment.

Container Disposal: Dispose of according to state, federal and local regulations.

14. TRANSPORT INFORMATION

Classification: Based on available information, not classified as Dangerous Goods for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition.

UN Number: None allocated
Proper Shipping Name or Technical Name: None allocated
Transport Hazard Class: None allocated
Packing Group: None allocated
Environmental Hazards for Transport Purposes: None allocated
Special Precautions for User: None allocated
HAZCHEM Code: None allocated

15. REGULATORY INFORMATION

SUSMP: Not scheduled
APVMA: Exempt from registration
State Departments of Agriculture / Primary Industries: Registration not required
Australian Inventory of Chemical All components listed
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Substances (AICS):
Toxic Substance – NZ Exempt

16. OTHER INFORMATION

Edition: Initial edition
Revision Due: May 2021
Reason for Revision: Initial version
Preparation Information: Prepared by Campbells Fertilisers Australasia
Data Sources: Supplier SDS
Trademark Information: Aqua-Fert is a Registered Trademark of Campbells Fertilisers Australasia

Glossary:
- ACGIH: American Conference of Government Industrial Hygienists
- APVMA: Australian Pesticides and Veterinary Medicines Authority
- CAS: Chemical Abstract Services number, used to uniquely identify chemical compounds
- NOHSC: National Occupational Health and Safety Commission
- PPE: Personal protective equipment
- SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons

This SDS summarises our best knowledge of the health and safety hazard information available for this product and how to safely handle and use it. Since the use of this information and the conditions of the use of this product are not under the control of Campbells Fertilisers, it is the user’s responsibility to determine conditions of safe use of the product.

END OF SDS