

# Safety Data Sheet



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** **TPHS 75%**

**Other name(s):** Tetrakis (hydroxymethyl) phosphonium sulphate aqueous solution 75%; THPS 75%; Whitan Conc.

**Recommended Use of the Chemical and Restrictions on Use** Intermediate.

**Supplier:** Ixom Operations Pty Ltd (Incorporated in Australia)  
**NZBN:** 9429041465226  
**Street Address:** 166 Totara Street  
Mt Maunganui South  
New Zealand

**Telephone Number:** +64 9 368 2700  
**Facsimile:** +64 9 368 2710  
**Emergency Telephone:** **0 800 734 607 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

Classified as a Dangerous Good according to NZS 5433:2012 Transport of Dangerous Goods on Land.

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

**SIGNAL WORD:** DANGER

### Subclasses:

Subclass 6.1 Category C - Substances which are acutely toxic.  
Subclass 6.5 Category B - Substances that are contact sensitisers.  
Subclass 8.2 Category C - Substances that are corrosive to dermal tissue.  
Subclass 8.3 Category A - Substances that are corrosive to ocular tissue.  
Subclass 9.1 Category A - Substances that are very ecotoxic in the aquatic environment.  
Subclass 9.3 Category B - Substances that are ecotoxic to terrestrial vertebrates.

Approval Number: HSR005060



### Hazard Statement(s):

H301 Toxic if swallowed.  
H317 May cause an allergic skin reaction.  
H314 Causes severe skin burns and eye damage.  
H400 Very toxic to aquatic life.  
H432 Toxic to terrestrial vertebrates.

# Safety Data Sheet



## Precautionary Statement(s):

### Prevention:

P102 Keep out of reach of children.

P103 Read label before use.

P260 Do not breathe mist/vapours/spray.

P264 Wash hands thoroughly after handling.

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

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

### Response:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P330 Rinse mouth.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before re-use.

P321 Specific treatment (see First Aid Measures on the Safety Data Sheet).

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

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

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 or doctor/physician.

P391 Collect spillage.

### Storage:

P405 Store locked up.

### Disposal:

P501 In 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) Notice 2017. This may also include any method of disposal that must be avoided.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
Tetrakis(hydroxymethyl) phosphonium sulphate (2:1)	55566-30-8	>=75%	H301 H315 H317 H318 H400
Water	7732-18-5	<=25%	-

## 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

### Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. 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 discolouration 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.

### Skin Contact:

If spilt on large areas of skin or hair, immediately drench with running water and remove 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.

Product Name: TPHS 75%

Substance No: 000000050953

Issued: 13/02/2019

Version: 3

# Safety Data Sheet



## Eye Contact:

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

## Ingestion:

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

## Indication of immediate medical attention and special treatment needed:

Treat symptomatically. Can cause corneal burns.

## 5. FIRE FIGHTING MEASURES

### Suitable Extinguishing Media:

Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

### Unsuitable Extinguishing Media:

Water jet.

**Hazchem or Emergency Action Code:** 2X

### Specific hazards arising from the chemical:

Non-combustible material. Corrosive chemical. Environmentally hazardous.

### Special protective equipment and precautions for fire-fighters:

Decomposes on heating emitting toxic fumes, including those of oxides of carbon, oxides of sulfur, oxides of phosphorus. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

## 6. ACCIDENTAL RELEASE MEASURES

### Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. Do not allow container or product to get into drains, sewers, streams or ponds. If contamination of sewers or waterways has occurred advise local emergency services.

### Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:

Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. DO NOT return spilled material to original container for re-use. After cleaning, flush away any residual traces with water. Recover the cleaning water for subsequent disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Avoid skin and eye contact and breathing in vapour, mists and aerosols. When using do not eat, drink or smoke. Wash hands before breaks and at the end of the work day. Launder contaminated clothing before reuse.

**Conditions for safe storage, including any incompatibilities:** Store in a cool, dry, well ventilated place and out of direct sunlight. Do not store in steel containers. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Workplace Exposure Standards:** No value assigned for this specific material by the New Zealand Workplace Health & Safety Authority.

**Appropriate engineering controls:**

Use in well ventilated areas. Keep containers closed when not in use.

**Individual protection measures, such as Personal Protective Equipment (PPE):**

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, CHEMICAL GOGGLES, FACE SHIELD, GLOVES (Long), APRON, RUBBER BOOTS.



Wear overalls, chemical goggles, face shield, elbow-length impervious gloves, splash apron or equivalent chemical impervious outer garment, and rubber boots. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic
<b>Solubility:</b>	Miscible in water.
<b>Specific Gravity:</b>	1.37-1.42
<b>Relative Vapour Density (air=1):</b>	Not available
<b>Vapour Pressure (20 °C):</b>	<0.000825 mm Hg
<b>Flash Point (°C):</b>	Not applicable
<b>Flammability Limits (%):</b>	Not available
<b>Autoignition Temperature (°C):</b>	Not available
<b>Boiling Point/Range (°C):</b>	Not available
<b>pH:</b>	2.5-5.5 @25C

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No information available.
<b>Chemical stability:</b>	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerisation will not occur.
<b>Conditions to avoid:</b>	Avoid exposure to heat.
<b>Incompatible materials:</b>	Incompatible with bases , oxidising agents , reducing agents .

# Safety Data Sheet



**Hazardous decomposition products:** Oxides of sulfur. Oxides of phosphorus. Oxides of carbon.

## 11. TOXICOLOGICAL INFORMATION

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

- Ingestion:** Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
- Eye contact:** A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
- Skin contact:** Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns. A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis.
- Inhalation:** Breathing in mists or aerosols may produce respiratory irritation.
- Acute toxicity:**  
Oral LD50 (rat): 248-575 mg/kg  
Dermal LD50 (rat): >2000 mg/L  
Inhalation LC50 (rat): 22 mg/L/4hr (vapour)
- Chronic effects:**
- Mutagenicity:** No information available.
- Carcinogenicity:** Tetrakis(hydroxymethyl)phosphonium salts have been classified by the International Agency for Research on Cancer (IARC) as Group 3 agents. Group 3 - The agents are not classifiable as to its carcinogenicity to humans.
- Reproductive toxicity:** No information available.
- Specific Target Organ Toxicity (STOT) - single exposure:** No information available.
- Specific Target Organ Toxicity (STOT) - repeated exposure:** May cause damage to organs through prolonged or repeated exposure.
- Aspiration hazard:** No information available.

## 12. ECOLOGICAL INFORMATION

- Ecotoxicity** Avoid contaminating waterways.
- Persistence/degradability:** The material is biodegradable.
- Bioaccumulative potential:** Not expected to bioaccumulate.
- Mobility in soil:** No information available.
- Aquatic toxicity:** Very toxic to aquatic organisms.
- 96hr EC50 (algae): 204 ug/L (Green alga *S. capricornutum*) (for major component)
- Terrestrial toxicity:** Toxic to terrestrial vertebrates.

## 13. DISPOSAL CONSIDERATIONS

# Safety Data Sheet



## Disposal methods:

Refer to local government authority for disposal recommendations. Dispose of contents/container in accordance with local/regional/national/international regulations.

## 14. TRANSPORT INFORMATION

### Road and Rail Transport

Classified as a Dangerous Good according to NZS 5433:2012 Transport of Dangerous Goods on Land.



**UN No:** 2922  
**Transport Hazard Class:** 8 Corrosive  
**Subrisk 1:** 6.1 Toxic  
**Packing Group:** III  
**Proper Shipping Name or Technical Name:** CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS TETRAKIS(HYDROXYMETHYL)PHOSPHONIUM SULPHATE (2:1))  
**Hazchem or Emergency Action Code:** 2X

### Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

**UN No:** 2922  
**Transport Hazard Class:** 8 Corrosive  
**Subrisk 1:** 6.1 Toxic  
**Packing Group:** III  
**Proper Shipping Name or Technical Name:** CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS TETRAKIS(HYDROXYMETHYL)PHOSPHONIUM SULPHATE (2:1))  
**IMDG EMS Fire:** F-A  
**IMDG EMS Spill:** S-B

### Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

**UN No:** 2922  
**Transport Hazard Class:** 8 Corrosive  
**Subrisk 1:** 6.1 Toxic  
**Packing Group:** III  
**Proper Shipping Name or Technical Name:** CORROSIVE LIQUID, TOXIC, N.O.S. (CONTAINS TETRAKIS(HYDROXYMETHYL)PHOSPHONIUM SULPHATE (2:1))

## 15. REGULATORY INFORMATION

### Classification:

Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Notice 2017 and the Hazardous Substances (Classification) Notice 2017.

# Safety Data Sheet



## Subclasses:

- Subclass 6.1 Category C - Substances which are acutely toxic.
- Subclass 6.5 Category B - Substances that are contact sensitisers.
- Subclass 8.2 Category C - Substances that are corrosive to dermal tissue.
- Subclass 8.3 Category A - Substances that are corrosive to ocular tissue.
- Subclass 9.1 Category A - Substances that are very ecotoxic in the aquatic environment.
- Subclass 9.3 Category B - Substances that are ecotoxic to terrestrial vertebrates.

Approval Number: HSR005060

## Hazard Statement(s):

- H301 Toxic if swallowed.
- H317 May cause an allergic skin reaction.
- H314 Causes severe skin burns and eye damage.
- H400 Very toxic to aquatic life.
- H432 Toxic to terrestrial vertebrates.

## 16. OTHER INFORMATION

Supplier Safety Data Sheet; 10/ 2017.

All the constituents of this material are listed on the New Zealand Inventory of Chemicals.

This safety data sheet has been prepared by Ixom Operations Pty Ltd (Toxicology & SDS Services).

## Reason(s) for Issue:

- 5 Yearly Revised Primary SDS
- Change in Hazardous Chemical Classification
- Change in Personal Protection Requirements
- Change in Physical Properties

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 Ixom Operations Pty Ltd 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 Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

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