

# THPS 75%

## Safety Data Sheet

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### SECTION 1: Identification

#### 1.1. Identification

Product name	: Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (THPS, 75%)
Product form	: Mixture
EC number	: 259-709-0
CAS-No.	: 55566-30-8
Formula	: C8H24O12P2S

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance/mixture	: Industrial use.
Restrictions on use	: Not determined.

#### 1.3. Supplier

FARSA Group Ltd  
[Sales@farsagroup.az](mailto:Sales@farsagroup.az)

#### 1.4. Emergency contacts

Emergency number	: +994512707856
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### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Acute toxicity (Oral), Category 3	: H301 Toxic if swallowed
Acute toxicity (Inhalation: vapour), Category 3	: H331 Toxic if inhaled
Serious eye damage/eye irritation, Category 1	: H318 Causes serious eye damage
Skin sensitization, Category 1	: H317 May cause an allergic skin reaction
Reproductive toxicity, Category 2	: H361 Suspected of damaging fertility or the unborn child
Hazardous to the aquatic environment - Acute Hazard, Category 1	: H400 Very toxic to aquatic life

#### 2.2. Label elements



Signal word : Danger

Hazard statements : H301+H331 - Toxic if swallowed or if inhaled  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H361 - Suspected of damaging fertility or the unborn child  
H400 - Very toxic to aquatic life

Precautionary statements : P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P261 - Avoid breathing spray, vapors  
P264 - Wash hands, forearms and face thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P272 - Contaminated work clothing must not be allowed out of the workplace  
P273 - Avoid release to the environment  
P280 - Wear eye protection, face protection, protective clothing, protective gloves  
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P302+P352 - If on skin: Wash with plenty of water  
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable

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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  
P310 - Immediately call a poison center or doctor/physician  
P311 - Call a doctor, a POISON CENTER  
P330 - Rinse mouth  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention  
P363 - Wash contaminated clothing before reuse  
P391 - Collect spillage  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed  
P405 - Store locked up  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards

No additional information available.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable.

### 3.2. Mixtures

Name	Product identifier	%
Tetrakis (Hydroxymethyl) Phosphonium Sulphate	(CAS No) 55566-30-8	72.4 - 78.8
Water	(CAS No) 7732-18-5	21.2 - 27.6

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures general** : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation.
- First-aid measures after inhalation** : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
- First-aid measures after skin contact** : Wash skin with plenty of water. Get medical advice/attention. Wash contaminated clothing before reuse. Take off contaminated clothing.
- First-aid measures after eye contact** : Rinse immediately with plenty of water (for at least 15 minutes). Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- First-aid measures after ingestion** : Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

### 4.2. Most important symptoms and effects, both acute and delayed

- Potential Adverse human health effects and symptoms** : Harmful if swallowed.
- Symptoms/injuries** : Causes severe skin burns and eye damage.
- Symptoms/injuries after inhalation** : Corrosive to the respiratory tract.
- Symptoms/injuries after skin contact** : Causes burns.
- Symptoms/injuries after eye contact** : Causes serious eye damage.
- Symptoms/injuries after ingestion** : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media** : In case of fire in the surroundings: all extinguishing agents allowed. Water spray. Foam. Carbon dioxide. Dry powder.
- Unsuitable extinguishing media** : None to our knowledge. If there is a fire close by, use suitable extinguishing agents.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard** : Combustible liquid.
- Explosion hazard** : On heating, there is a risk of bursting due to internal pressure build-up. Cool down the containers exposed to heat with a water spray. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
- Reactivity** : Reacts with (strong) oxidizers. Heating may cause a fire. Reacts exothermically with (some) bases.

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### 5.3. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire** : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighborhood close doors and windows.
- Firefighting instruction** : Exercise caution when fighting any chemical fire. Cool closed containers exposed to fire with water spray. Prevent fire-fighting water from entering environment.
- Protection during firefighting** : Complete protective clothing. Wear respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures** : Evacuate area.

#### 6.1.1. For non-emergency personnel

- Protective equipment** : Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles. Impervious protective suit with gloves, boots, and full head and face protection must be worn.
- Emergency procedures** : Evacuate area. Mark the danger area. No flames, no sparks. Eliminate all sources of ignition. Keep upwind.
- Measures in case of dust release** : In case of dust/mist production: keep upwind. In case of dust/mist production: consider evacuation. Dust/mist production: have neighborhood close doors and windows. In case of dust/mist production: stop engines and no smoking. In case of dust/mist production: no naked flames or sparks. Dust/mist: spark-/explosionproof appliances/lighting equipment.

#### 6.1.2. For emergency responders

- Protective equipment** : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection.
- Emergency procedures** : Stop leak if safe to do so. Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and materials for containment and cleaning up

- For containment** : Contain leaking substance, pump over in suitable containers. Prevent entry to sewers and public waters. Collect all waste in suitable and labeled containers and dispose according to local legislation.
- Methods for cleaning up** : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Dispose in a safe manner in accordance with local/national regulations. Collect spillage. Wash clothing and equipment after handling.

### 6.4. Reference to other section

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling** : Keep container tightly closed. Always wash hands after handling the product. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Carry out operations in the open/under local exhaust/ventilation or with respiratory protection. Do not breathe vapors. Do not get in eyes, on skin, or on clothing. Eliminate all ignition sources if safe to do so. Comply with applicable regulations.
- Hygiene measures** : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures** : Comply with applicable regulations.
- Storage conditions** : Store in a well-ventilated place. Keep cool. Keep in fireproof place. Keep only in original container.
- Incompatible products** : Strong bases. Strong acids. Oxidizing agent.
- Incompatible materials** : Sources of ignition. Heat sources.
- Heat-ignition** : Store in a cool, well-ventilated place. Store away from heat.
- Storage area** : Keep container tightly closed and in a well-ventilated place.
- Special rules on packaging** : Keep only in original container.

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (THPS, 75%) (55566-30-8)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
tetrakis(hydroxymethyl)phosphonium sulphate (2:1) (55566-30-8)		

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ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> Tetrakis (hydroxymethyl) phosphonium sulfate
<b>Water (7732-18-5)</b>		
Not applicable		

### 8.2. Appropriate engineering controls

- Appropriate engineering measures** : Carry out operations in the open/under local exhaust/ventilation or with respiratory protection.  
**Environmental exposure controls** : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

- Personal protective equipment** : Avoid all unnecessary exposure.  
**Hand protection** : Protective gloves.  
**Eye protection** : Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles.  
**Skin and body protection** : Wear suitable protective clothing.  
**Respiratory protection** : In case of inadequate ventilation wear respiratory protection. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Achromaticity liquid	<b>Relative density</b>	1.350 - 1.420
<b>Colour</b>	Colourless	<b>Specific gravity/density</b>	≈ 1.38 g/ml
<b>Odour</b>	Characteristic	<b>Molecular mass</b>	406.28 g/mol
<b>Odour threshold</b>	No data available	<b>Solubility</b>	Soluble in water
<b>pH</b>	2.5 - 5.5	<b>Log Pow</b>	No data available
<b>Melting point</b>	No data available	<b>Auto-ignition temperature</b>	137°C
<b>Freezing point</b>	≈ -40 °C	<b>Decomposition temperature</b>	No data available
<b>Boiling point</b>	≈ 109 °C	<b>Viscosity, kinematic</b>	No data available
<b>Flash point</b>	96 °C	<b>Viscosity, dynamic</b>	No data available
<b>Relative evaporation rate</b>	No data available	<b>Explosion limit</b>	No data available
<b>Flammability (solid, gas)</b>	Non-flammable	<b>Explosive properties</b>	No data available
<b>Vapor pressure</b>	1.7 kPa at 25°C	<b>Oxidizing properties</b>	No data available
<b>Relative vapor density at 20°C</b>	>1	-	-

### 9.2. Other information

None.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with (strong) oxidizers. Heating may cause a fire. Reacts exothermically with (some) bases.

### 10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

### 10.3. Possibility of hazardous reaction

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Thermal decomposition generates: fume. Carbon monoxide. Carbon dioxide. Corrosive vapors.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

- Acute toxicity (oral)** : Oral: Toxic if swallowed.  
**Acute toxicity (dermal)** : Not classified.  
**Acute toxicity (inhalation)** : Inhalation: vapour: Toxic if inhaled.

Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (THPS, 75%) (55566-30-8)		
LD50 oral rat		248 mg/kg
LC50 inhalation rat (mg/l)		5.5 mg/l/4h
tetrakis(hydroxymethyl)phosphonium sulphate (2:1) (55566-30-8)		
LD50 oral rat		248 mg/kg (Rat)
LC50 inhalation rat (mg/l)		5.5 mg/l/4h (Rat)

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<b>Skin corrosion/irritation</b>	: Not classified. pH: ≈ 3 - 5
<b>Serious eye damage/eye irritation</b>	: Causes serious eye damage. pH: ≈ 3 - 5
<b>Respiratory or skin sensitisation</b>	: May cause an allergic skin reaction.
<b>Germ cell mutagenicity</b>	: Not classified.
<b>Carcinogenicity</b>	: Not classified.

<b>Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (THPS, 75%) (55566-30-8)</b>	
IARC group	3 - Not classifiable
<b>tetrakis(hydroxymethyl)phosphonium sulphate (2:1) (55566-30-8)</b>	
IARC group	3 - Not classifiable

<b>Reproductive toxicity</b>	: Suspected of damaging fertility or the unborn child.
<b>Specific target organ toxicity - single exposure</b>	: Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	: Not classified.
<b>Aspiration hazard</b>	: Not classified.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Ecology - water** : Mild water pollutant (surface water). No data available on ecotoxicity.

<b>Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (THPS, 75%) (55566-30-8)</b>	
LC50 fish 1	≈ 119 mg/l Oncorhynchus mykiss (Rainbow trout)
EC50 Daphnia 1	≈ 19.4 mg/l
LC50 fish 2	≈ 93 mg/l
ErC50 (algae)	≈ 0.16 mg/l

### 12.2. Persistence and degradability

<b>Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (THPS, 75%) (55566-30-8)</b>	
Persistence and degradability	Not established.
<b>tetrakis(hydroxymethyl)phosphonium sulphate (2:1) (55566-30-8)</b>	
Persistence and degradability	Biodegradability in water: no data available.

### 12.3. Bioaccumulative potential

<b>Tetrakis (Hydroxymethyl) Phosphonium Sulfate Solution (THPS, 75%) (55566-30-8)</b>	
Bioaccumulative potential	Not established.
<b>tetrakis(hydroxymethyl)phosphonium sulphate (2:1) (55566-30-8)</b>	
Bioaccumulative potential	No bioaccumulation data available.

### 12.4. Mobility in soil

No additional information available.

### 12.5. Results of PBT and vPvB assessment

Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

<b>Product/Packaging disposal recommendations</b>	: Dispose in a safe manner in accordance with local/national regulations.
<b>Ecology-waste materials</b>	: Avoid release to the environment.

## SECTION 14: Transport information

### 14.1. UN number

**UN No. (DOT)** : UN2922

### 14.2. UN proper shipping name

**Proper Shipping Name (DOT)** : Corrosive liquids, toxic, n.o.s.  
tetrakis(hydroxymethyl)phosphonium sulfate solution

### 14.3. Transport hazard class(es)

**Class (DOT)** : 8 - Class 8 - Corrosive material

### 14.4. Packing group

**Packing group (DOT)** : III - Minor Danger

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### 14.5. Hazard labels

Hazard labels (DOT)



Corrosive-8

### 14.6. Dangerous for the environment

Dangerous for the environment

: Yes.

Marine pollutant

: Yes.



## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available.

## SECTION 16: Other information

Full text of H-phrases

H301	Toxic if swallowed
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H331	Toxic if inhaled
H361	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life

#### Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text