1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: 200506
Product Name: THPS 75%
Trade Name: Tetrakis(Hydroxymethyl)phosphonium Sulfate
Company Name: Compass Chemical International LLC
5544 Oakdale Road SE
Smyrna, GA 30082

Web site address: www.compasschemical.com
Email address: orders@compasschemical.com
Emergency Contact: Chemtrec (800)424-9300
Compass (404)696-6711

Phone Number: (678)904-4017

Company: 5544 Oakdale Road SE
Smyrna, GA 30082

Intended Use: Intended for Industrial Use
Synonyms: THPS 75%

2. HAZARDS IDENTIFICATION

Acute Toxicity: Inhalation, Category 3
Acute Toxicity: Oral, Category 4
Serious Eye Damage/Eye Irritation, Category 1
Toxic To Reproduction, Category 1B
Aquatic Toxicity (Acute), Category 1

GHS Signal Word: Danger
GHS Hazard Phrases:
H302 - Harmful if swallowed.
H318 - Causes serious eye damage.
H331 - Toxic if inhaled.
H360 - May damage fertility or the unborn child.
H400 - Very toxic to aquatic life.

GHS Precaution Phrases:
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands 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.

GHS Response Phrases:
P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313 - IF exposed or concerned: Get medical attention/advice.
P310 - Immediately call a POISON CENTER or doctor/physician.
P321 - Specific treatment see Response/First aid section on this label.
P330 - Rinse mouth.
P391 - Collect spillage.
GHS Storage and Disposal Phrases:
- P405 - Store locked up.
- P501 - Dispose of contents/container in accordance with all federal, state and local regulations.

Emergency Overview:

Potential Health Effects (Acute and Chronic):

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Concentration</th>
<th>RTECS #</th>
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</thead>
<tbody>
<tr>
<td>55566-30-8</td>
<td>Tetrakis(Hydroxymethyl)phosphonium Sulfate</td>
<td>75 - 76 %</td>
<td>TA2570000</td>
</tr>
</tbody>
</table>

Additional Chemical Information

4. FIRST AID MEASURES

Emergency and First Aid Procedures:
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes. Treat symptomatically and supportively.

In Case of Inhalation:
- Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

In Case of Skin Contact:
- Remove contaminated clothing. Wash skin with soap and water. Get medical attention. Wash contaminated clothing before reuse.

In Case of Eye Contact:
- Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

In Case of Ingestion:
- If Quantities greater than 15 cc are swallowed, induce vomiting immediately. Get medical aid immediately. Never give anything by mouth to an unconscious person.

Indication of any immediate medical attention and special treatment needed:
- IF NOT BREATHING, call 911 or and ambulance, then give artificial respiration.

Note to Physician:
- Show this safety data sheet to the doctor in attendance. Probable mucosal damage may contraindicate the use of gastric lavage. Maintain adequate ventilation and oxygenation of the patient. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES

Flash Pt: > 205.0 F (96.1 C) Method Used: Setaflash Closed Cup (Rapid Setaflash)

Explosive Limits: LEL: N.D. UEL: N.D.

Autoignition Pt: 534.0 F (278.9 C)

Suitable Extinguishing Media: Dry chemical, CO2 or water spray.

Unsuitable Extinguishing Media: Unknown.

Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

Flammable Properties and Hazards:

Hazardous Combustion Products:
6. ACCIDENTAL RELEASE MEASURES

Protective Precautions, Protective Equipment and Emergency Procedures: Where splashing is possible, full chemically resistant protective clothing (e.g. acid suit) and boots are required. Wear positive pressure self-contained breathing apparatus (SCBA). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

Environmental Precautions: Land Spill: Prevent additional discharge of material if possible to do so without hazard. Warn occupants and downwind areas of hazardous material release hazard and request all to stay clear. For small spills implement clean-up procedures, for large spills implement clean-up procedures and, if in a public area, immediately advise authorities. This product is toxic to fish and aquatic organisms. Do not discharge into effluent containing this product into lakes, streams, ponds or estaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharging. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance call your State Water Board Authority or Regional Office of the EPA.

Steps To Be Taken In Case Material Is Released Or Spilled: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling: Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.


Other Precautions: Avoid contact with eyes, skin, and clothing. Contact with acids liberates toxic gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA PEL:</th>
<th>ACGIH TWA TLV:</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>55566-30-8</td>
<td>Tetrakis(Hydroxymethyl)phosphonium Sulfate</td>
<td>Not established</td>
<td>Not Established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

Respiratory Equipment (Specify Type): Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Eye Protection: Goggles and face shield.

Protective Gloves: Impervious gloves.

Other Protective Clothing: Impervious clothing.

Engineering Controls (Ventilation etc.): Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Work/Hygenic/Maintenance Practices: Wash contaminated clothing before reuse. Wash hands before breaks and at the end of workday. Wash thoroughly after handling.

Environmental Exposure Controls: Ventilation should be provided to control worker exposures and prevent health risks and as necessary to reduce, prevent and control dust, mist, vapor or aerosol generation. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States: [ ] Gas [ X ] Liquid [ ] Solid
Appearance and Odor: Clear, colorless to pale yellow liquid.
Slight Formaldehyde odor.

Odor threshold: Unavailable

pH:
~ 4.5

Melting Point:
NA

Boiling Point:
229.0 F (109.4 C)

Flash Pt:
> 205.0 F (96.1 C) Method Used: Setaflash Closed Cup (Rapid Setaflash)

Evaporation Rate:
NA

Flammability (solid, gas): NA- Not available

Explosive Limits:
LEL: N.D. UEL: N.D.

Vapor Pressure (vs. Air or mm Hg):
NA

Vapor Density (vs. Air = 1):
NP

Specific Gravity (Water = 1):
~ 1.40 at 25.0 C (77.0 F)

Density:
~ 11.67 LB/GA at 25.0 C (77.0 F)

Bulk density:
NP

Solubility in Water:
complete

Saturated Vapor Concentration:
NA

Octanol/Water Partition Coefficient:
unknown

Percent Volatile:
24.00 % by weight.

VOC / Volume:
NA

Autoignition Pt:
534.0 F (278.9 C)

Decomposition Temperature:
NA

Viscosity:
NA

Particle Size:
NP

Heat Value:
NA

Additional Physical Information

10. STABILITY AND REACTIVITY

Reactivity:
Irritating or toxic gasses or fumes may release during a fire. Strong acids, Strong bases, Strong oxidizing agents. Strong oxidizing agents.

Stability:
Unstable [ ] Stable [ X ]

Conditions To Avoid - Instability:
Excess heat, Strong oxidizing agents. Strong acids, Strong bases.

Incompatibility - Materials To Avoid:
Strong oxidizing agents and strong alkali.

Avoid:

Hazardous Decomposition or Byproducts:
Thermal decomposition may produce toxic fumes of phosphorus oxides and/or phosphine. Toxic gases/vapors/fume of: Carbon monoxide (CO). Carbon dioxide (CO2) hydrogen gas. Formaldehyde.

Possibility of Hazardous Reactions:
Will occur [ ] Will not occur [ X ]
11. TOXICOLOGICAL INFORMATION

Toxicological Information:

CAS# 55566-30-8:
Mutagenicity:, Mutation test: Morphological transformation., Mouse, 5000. PPM, Cell Type: Embryo..
Result:
Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Mydriasis (pupilliary dilation).
Behavioral: Convulsions or effect on seizure threshold.
Gastrointestinal: Nausea or vomiting.

Mutagenicity:, Mutation test: Mutation in mammalian somatic cells., Mouse, 6,000 MG/L, Cell Type: lymphocyte..
Result:
Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Mydriasis (pupilliary dilation).
Behavioral: Muscle contraction or spasticity.
Gastrointestinal: Changes in structure or function of salivary glands.

Mutagenicity:, Mutation test: Morphological transformation., Species: Hamster, 5000. PPM, Cell Type: kidney..
Result:
Behavioral: Convulsions or effect on seizure threshold.

Mutagenicity:, Mutation test: Mutation in mammalian somatic cells., Species: Hamster, 5000. PPM, Cell Type: lung..
Result:
Behavioral: Convulsions or effect on seizure threshold.
Behavioral: Muscle weakness.
Related to Chronic Data - death.

Other Studies:, TDLo, Oral, Rat, 650.0 MG/KG, 13 W.
Result:
Liver: Other changes.

Acute toxicity, LD50, Oral, Rat, 248.0 MG/KG.
Result:
Behavioral: Convulsions or effect on seizure threshold.
Gastrointestinal: Hypermotility, diarrhea.
Nutritional and Gross Metabolic: Changes in: Body temperature increase.
12. ECOLOGICAL INFORMATION

General Ecological Information:
- Toxic to aquatic life.
  - CAS# 55566-30-8:
    - LC50, Bluegill (Lepomis macrochirus), 97.00 PPM, 96 H, Mortality.
      Result: Morphological changes.
      - Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000
    - LC50, Rainbow Trout (Oncorhynchus mykiss), 94.00 PPM, 96 H, Mortality.
      Result: Morphological changes.
      - Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000
    - Effective concentration to 50% of test organisms., Water Flea (Daphnia magna), 15.00 PPM, 48 H, Intoxication.
      Result: Morphological changes.
      - Pesticide Ecotoxicity Database (Formerly: Environmental Effects Database (EEDB)), Office of Pesticide Programs, 2000

Bioaccumulative Potential: Very Toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Discarded product, as sold, would be considered a RCRA Characteristic Hazardous Waste as it meets the definition /characteristic of corrosivity (designated as D002).
Dispose of contents/container in accordance with all federal, state and local regulations.
Observe all federal, state, and local environmental regulations.

Waste Disposal Method: D002

14. TRANSPORT INFORMATION

GHS Classification:
- Acute Toxicity: Inhalation, Category 3 - Danger! Toxic if inhaled
- Acute Toxicity: Oral, Category 4 - Warning! Harmful if swallowed
- Serious Eye Damage/Eye Irritation, Category 1 - Danger! Causes serious eye damage
- Toxic To Reproduction, Category 1B - Danger! May damage fertility or the unborn child
- Aquatic Toxicity (Acute), Category 1 - Warning! Very toxic to aquatic life

LAND TRANSPORT (US DOT):
- DOT Proper Shipping Name: Toxic liquids, organic, n.o.s. (Tetrakis(hydroxymethyl)phosphonium sulfate)
- DOT Hazard Class: 6.1 POISON
- UN/NA Number: UN2810
- Packing Group: III
THPS 75%

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: CORROSIVE LIQUIDS, TOXIC, N.O.S. (tetrakis(hydroxymethyl)phosphonium sulfate)

UN Number: 2922

Hazard Class: 8 (6.1) - CORROSIVE, POISON

IMDG EMS Number: F-A, S-B

IMDG EMS Page: 142

Additional Transport Information: MARINE POLLUTANT.

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>S. 302 (EHS)</th>
<th>S. 304 RQ</th>
<th>S. 313 (TRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>55566-30-8</td>
<td>Tetrakis(Hydroxymethyl)phosphonium Sulfate</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections

- [X] Yes  [ ] No  Acute (immediate) Health Hazard
- [X] Yes  [ ] No  Chronic (delayed) Health Hazard
- [ ] Yes  [X] No  Fire Hazard
- [ ] Yes  [X] No  Sudden Release of Pressure Hazard
- [ ] Yes  [X] No  Reactive Hazard

Other US EPA or State Lists

- CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP. 65: No

International Regulatory Lists

- Canadian DSL: Yes; Canadian NDSL: No; Mexico INSQ: Yes; Australia ICS: Yes; China IECSC: Yes; Japan ENCS: Yes - (1)-430; Korea ECL: No; Philippines ICCS: Yes; Taiwan TCSCA: Yes; REACH: Yes - (R), (P)

Regulatory Information Statement:

Regulatory information provided in this SDS was prepared for this product and is to be used only for the product in its present form. If this material is used as a component in another material or altered in any way, the information in this SDS may no longer be applicable. This document was generated for the purpose of distributing health, safety and environmental data.

16. OTHER INFORMATION

Revision Date: 01/13/2016

Preparer Name: Compass EHS Department  (404)696-6711  4071

Hazard Rating System: [HEALTH:3] [FLAMMABILITY:1] [PHYSICAL:0] [PPE:J]

NFPA: 1 3

Additional Information About SDS Data Field Acronym Legend:

- NA- Not Available
- NE- Not Established
- NP- Not Applicable
- NR- Not Required

COMPASS EHS Department     (404)696-6711   4071

Preparer Name:

Revision Date: 01/13/2016
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