

Section 1. Product and Company Identification

**Product Name** Propylene Tetramer  
**CAS Number** 93821-12-6

**Parchem - fine & specialty chemicals**

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**EMERGENCY RESPONSE NUMBER**  
**CHEMTEL**

Toll Free US & Canada: 1 (800) 255-3924

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Collect Calls Accepted

Section 2. Hazards Identification

**Classification of the substance or mixture**

**Classification according to Regulation (EU) 1272/2008**

**CLP-Classification:** The product is classified as hazardous in accordance with Directive 1272/2008/EEC.

Flam. Liq. 3 H226

Asp. Tox. 1 H304

Aquatic Acute 1 H400

Aquatic Chronic 1 H410

**Classification according to EU Directives 67/548/EC or 1999/45/EC**

**Classification:** The product is classified as dangerous in accordance with Directive 67/548/EEC.

Xn; R65

N; R50/53

R10

R66

**GHS Label Elements**

**Pictograms:**



**Signal word:** DANGER

**Hazard and precautionary statements**

**Hazard Statements (CLP)**

H226 - Flammable liquid and vapor.

H304 - May be fatal if swallowed and enters airways.

H410 - Very toxic to aquatic life with long lasting effects.

**Precautionary Statements (CLP)**

P273 - Avoid release to the environment.

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

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

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

P331 - Do NOT induce vomiting.

P391 - Collect spillage.

**EUH phrases**

EUH066 - Repeated exposure may cause skin dryness or cracking

**Other hazards which do not result in classification**

**Results of PBT and vPvB assessment:** Non-classified

Section 3. Composition / Information on Ingredients

**Common Name** Propylene Tetramer  
**Synonym(s)** Alkenes, C10-14-branched and linear, C12-rich  
**CAS Number** 93821-12-6

COMPONENT	CAS NUMBER	CONCENTRATION
Propylene Tetramer	93821-12-6	100%
2,6-Di-Tert-Butyl-p-Cresol	128-37-0	< 0.01%

Section 4. First Aid Measures

**Description of first aid measures**

**Inhalation:** Move to fresh air. Keep at rest. In case of shortness of breath, give oxygen. If symptoms persist, call a physician.

**Skin contact:** Take off contaminated clothing and shoes immediately. Rinse immediately with plenty of water for 15 minutes Wash off with soap and water. If skin irritation persists, call a physician.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

**Ingestion:** Do NOT induce vomiting. Drink plenty of water. Rinse mouth, ingest activated charcoal. Consult a physician.

**Additional advice:** First aider needs to protect himself. See also section 8. Treat symptomatically. Never give anything by mouth to an unconscious person. Show this safety data sheet to the doctor in attendance.

**Most important symptoms and effects, both acute and delayed**

**Inhalation:** Vapors may cause drowsiness and dizziness. May cause irritation of respiratory tract. Inhalation may provoke the following symptoms: Runny nose. Cough. Inhalation of high vapor concentrations can cause CNS depression and narcosis. Inhalation of high vapor concentrations may

cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

**Skin contact:** Repeated exposure may cause skin dryness or cracking. Skin contact may provoke the following symptoms: Redness.

**Eye contact:** May cause eye irritation. Eye contact may provoke the following symptoms: Lachrymation.

**Ingestion:** Harmful: may cause lung damage if swallowed. Aspiration may cause pulmonary oedema and pneumonitis. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Indication of any immediate medical attention and special treatment needed:** In case of ingestion, the stomach should be emptied by gastric lavage under qualified medical supervision.

#### Section 5. Firefighting Measures

##### Extinguishing media

**Suitable extinguishing media:** Use dry chemical, CO<sub>2</sub>, water spray or alcohol resistant foam.

**Extinguishing media which shall not be used for safety reasons:** High volume water jet

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

**Fire Hazard:** Flammable.

**Specific hazards:** Evacuate personnel to safe areas. Heating may cause an explosion. Vapors may form explosive mixture with air. In case of fire hazardous decomposition products may be produced such as: Carbon oxides. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Prevent product from entering drains.

**Advice for firefighters:** Special protective equipment for firefighters In the event of fire, wear self-contained breathing apparatus. In the event of fire, cool tanks with water spray. Hose down gases, fumes and/or dust with water.

#### Section 6. Accidental Release Measures

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

**Advice for non-emergency personnel:** Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Wear personal protective equipment. See also section 8 Avoid contact with skin, eyes and clothing. Do not breathe vapor. Keep away from open flames, hot surfaces and sources of ignition. Ensure all equipment is electrically grounded before beginning transfer operations. Vapors may form explosive mixture with air. Vapors are heavier than air and may spread along floors.

**Advice for emergency responders:** Only qualified personnel equipped with suitable protective equipment may intervene.

**Environmental precautions:** Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

### Methods and material for containment and cleaning up

**Methods for cleaning up:** Remove all sources of ignition. Do not smoke. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Clean-up methods - small spillage: Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Dispose of in accordance with local regulations. Clean-up methods - large spillage: Keep people away from and upwind of spill/leak. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Large spills should be collected mechanically (remove by pumping) for disposal. Collect and dispose of waste product at an authorized disposal facility. Local authorities should be advised if significant spillages cannot be contained.

**Reference to other sections:** See also section 13. See also section 8.

## Section 7. Handling and Storage

### Precautions for safe handling

**Handling:** Prevent access by unauthorized personnel. Ensure adequate ventilation. Wear personal protective equipment. See also section 8. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Ensure all equipment is electrically grounded before beginning transfer operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Take care to avoid waste and spillage when weighing, loading and mixing the product. Do not let product enter drains. Do not use compressed air for filling, discharging or handling. Take any precaution to avoid mixing with Incompatible materials. Always replace cap after use. Vapors may form explosive mixture with air. Vapors are heavier than air and may spread along floors.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Eye wash bottle with pure water Use only in an area equipped with a safety shower. Keep working clothes separately. Keep away from food, drink, and animal feeding stuffs. When using, do not eat, drink or smoke.

### Conditions for safe storage, including any incompatibilities

**Storage:** Storage of flammable liquids Store at room temperature in the original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Keep away from open flames, hot surfaces and sources of ignition. Do not store near or with any of the incompatible materials listed in section 10. Keep away from combustible materials. Gases under pressure. Liquefied gas. Keep away from food, drink and animal feeding stuffs.

## Section 8. Exposure Controls / Personal Protection

### Control parameters

**Exposure limit(s):** No data available

**Component:** 2,6-di-tert-butyl-p-cresol (128-37-0)

**TLV-TWA (mg/m<sup>3</sup>):** 10 (FR, GB, FI, DK, HR, SI, CH); 2 (BE)

**TLV-STEL (mg/m<sup>3</sup>):** 20 (FI)

### Exposure controls

**Personal protective equipment:** The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:** not required under normal use. In case of insufficient ventilation wear suitable respiratory equipment. Respirator with a full face mask (EN 136)  
Recommended Filter type: A (EN 141) In case of emergency. (in case of higher concentration) Self-contained open-circuit compressed air breathing apparatus (EN 137)

**Hand protection:** Butyl rubber (EN374) The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves.

**Eye protection:** Safety glasses with side-shields Goggles EN 166

**Skin and body protection:** Chemical resistant apron, Flame retardant antistatic protective clothing

**Thermal hazard protection:** not required under normal use. Use dedicated equipment.

**Engineering measures:** Ensure adequate ventilation. Use only in area provided with appropriate exhaust ventilation. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Ensure that eyewash stations and safety showers are close to the workstation location. Organizational measures to prevent /limit releases, dispersion and exposure. See also section 7.

**Environmental exposure controls:** Do not flush into surface water or sanitary sewer system. Exhaust air must be cleaned using approved equipment before returning it to the work place. Comply with applicable Community environmental protection legislation.

## Section 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

**Appearance:** Liquid

**Colour:** Colorless

**Odour:** Petroleum hydrocarbon odor

**pH:** Not applicable

**Melting point/range:** < -20°C

**Boiling point/boiling range:** 179 - 210°C

**Flash point:** 52°C

**Evaporation rate:** No data available

**Flammability (solid, gas):** Not applicable

**Explosion limits:** No data available

**Vapor pressure:** 36 Pa at 20°C

284 Pa at 50°C

**Vapor density:** No data available

**Relative density:** 0.77 - 0.785 g/cm<sup>3</sup> at 20°C

**Water solubility:** 0.00269 - 1.2 mg/l at 25°C

**Partition coefficient:** n-octanol/water: 6 - 7.3  
**Autoignition temperature:** 222°C  
**Decomposition temperature:** No data available  
**Viscosity:** < 3.44 cSt at 40°C  
< 5.04 cSt at 20°C  
**Explosive properties:** Not applicable  
**Oxidizing properties:** not applicable

**Other information:** Not available

#### Section 10. Stability and Reactivity

##### **Reactivity**

**Reactivity:** Flammable liquid, See also section 10.5

##### **Chemical stability**

**Stability:** Unstable upon depletion of inhibitor.,= Antioxidant (0.005 - 0.015% ionol)

##### **Possibility of hazardous reactions**

**Hazardous reactions:** Reacts with air to form peroxides. May form explosive peroxides. In use, may form flammable/explosive vapor-air mixture.

**Conditions to avoid:** Heat, flames and sparks. Exposure to sunlight. Exposure to air. See also section 7 Handling and storage

**Incompatible materials:** Oxidizing agents Acids Bases See also section 7 Handling and storage

**Hazardous decomposition products:** Burning produces noxious and toxic fumes. Possible decomposition products are: Carbon oxides

#### Section 11. Toxicological Information

##### **Information on toxicological effects**

**Acute toxicity:** Not classified (Not classified due to data which are conclusive although insufficient for classification.)

##### **2,6-di-tert-butyl-p-cresol (128-37-0)**

**LD50/oral/rat:** 1700 mg/kg

**Skin corrosion/irritation:** Not classified (Not classified due to data which are conclusive although insufficient for classification.)

pH: Not applicable

**Serious eye damage/irritation:** Not classified (Not classified due to data which are conclusive although insufficient for classification.)

pH: Not applicable

**Respiratory or skin sensitization:** Not classified (Not classified due to data which are conclusive although insufficient for classification.)

**Germ cell mutagenicity:** Not classified (Not classified due to data which are conclusive although insufficient for classification.)

**Carcinogenicity:** Not classified (Not classified due to data which are conclusive although insufficient for classification.)

**Reproductive toxicity:** Not classified (Not classified due to data which are conclusive although insufficient for classification.)

**Specific target organ toxicity (single exposure):** Not classified (Not classified due to data which are conclusive although insufficient for classification.)

**Specific target organ toxicity (repeated exposure):** Not classified (Not classified due to data which are conclusive although insufficient for classification.)

**Aspiration hazard:** May be fatal if swallowed and enters airways.

#### Further information

Symptoms related to the physical, chemical and toxicological characteristics. See section 4.

#### Section 12. Ecological Information

##### Toxicity

**Ecotoxicity effects:** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

NOEC = 2 mg/l

EC50/48h/daphnia = < 1 mg/l - 10 mg/l (C6, C8, C10 & C12)

EC50/72h/algae = < 1 mg/l - 10 mg/l (C6, C8, C10 & C12)

LC50/48h/fish = 1 mg/l - 10 mg/l (C6, C8 & C10)

##### Persistence and degradability

**Persistence and degradability:** Readily biodegradable

**Abiotic degradation:** No data available, not applicable

##### Bioaccumulative potential

**Bioaccumulation:** May cause bioaccumulation.

Partition coefficient: n-octanol/water: 6 - 7.3

Bioconcentration factor (BCF): Log BCF: 2.26 - 4.66

##### Mobility in soil

**Mobility:** No data available

**Absorption / desorption:** Log Koc = 4.18 - 5.77

##### Results of PBT and vPvB assessment

**PBT/vPvB:** This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).



**Other adverse effects**

**Further information:** No data available

Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

**UN number**

**UN-No.:** 2850

**UN proper shipping name**

**Proper shipping name:** Propylene Tetramer

**Proper shipping name IATA/IMDG:** Propylene Tetramer

**Transport hazard class(es)**

**Overland transport**

**Class:** 3 - Flammable liquid

**Hazard identification number (Kemler No.):** 30

**Classification code:** F1

**ADR/RID-Labels:** 3 - Flammable liquid

**Inland waterway transport (ADN/ADNR)**

**Class (ADNR):** 3

**Transport by sea**

**Class:** 3 - Flammable liquids

**Air transport**

**Class:** 3 - Flammable liquids

**Packing group:** III

**Environmental hazards:** p

**Other information:** No supplementary information available.

Section 15. Regulatory Information

**Safety, health, and environmental regulations/legislation specific for the substance or mixture**

**EU-Regulations**

Authorizations/Restrictions on use: Not applicable



This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC.: Not applicable

**National regulations**

WGK: 3

**Chemical safety assessment**

Chemical Safety Assessment: A Chemical Safety Assessment has been carried out for this substance.

Section 16. Other Information
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**Disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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