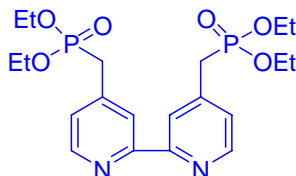


## SPECIFICATION

Chemical Name	:	Tetraethyl 2,2'-bipyridine-4,4'-diylbis(methylene)diphosphonate
CAS Number	:	174397-53-6
Product Number	:	SBP-0010
Structure	:	



Description	:	White color powder
<sup>1</sup> H-NMR	:	Shall comply with the structure
Mass spectrum	:	Corresponding to the molecular weight 457 (M+1)
Purity (by HPLC)	:	NLT 98%



# Sapala Organics Private Limited

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## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF SUBSTANCE AND SUPPLIER

**Name on Label** : Tetraethyl 2,2'-bipyridine-4,4'-diylbis(methylene)diphosphonate  
**Alternative Names:**

### 2. COMPOSITION AND INFORMATION ON COMPONENTS

**Name** : Tetraethyl 2,2'-bipyridine-4,4'-diylbis(methylene)diphosphonate  
**Minor Impurities** : Not determined  
**CAS Number** : 174397-53-6  
**EINECS Number** : Not listed  
**EEC Number** : None

### 3. HAZARDS IDENTIFICATION

**Designation** : No specific hazard  
**Risk Phrases** : -

### 4. FIRST AID MEASURES

**Inhalation** : Remove to fresh air. Seek medical advice if symptoms persist.  
**Eye Contact** : Flush with copious amounts of water for at least 15 minutes.  
**Skin Contact** : Wash affected area with soap and water. Rinse thoroughly.  
**Ingestion** : Rinse out mouth and drink lots of water. If unusual symptoms are observed, seek medical advice.

### 5. FIRE FIGHTING MEASURES

**Extinguishing Medium** : Use fire fighting measures which suit the environment and take into account other materials which may be involved. In general, water-based extinguishers should not be used for fires involving organic materials. Use carbon dioxide or dry powder.  
**Protective Equipment** : Wear hand-gloves, nose mask and goggles.  
**Hazardous Products of Combustion May Include** : carbon monoxide, carbon dioxide, hydrogen chloride (hydrochloric acid), oxides of nitrogen, nitric acid.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Protection** : Wear protective equipment including hand-gloves and eye protection. Keep unprotected persons away.  
**Environmental Protection** : Take precautions to ensure product does not enter the drainage system.  
**Collection** : Mix with vermiculite or proprietary absorbent material and transfer to sealed containers for disposal.

### 7. HANDLING AND STORAGE

**Handling** : Chemicals should be used only by those trained in handling potentially hazardous materials. Rubber gloves, eye protection and protective clothing should be worn. Operations should be carried out in an efficient fume hood or equivalent system.  
**Storage** : Store in tightly sealed containers in a cool place.  
Protect from moisture.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Respiratory** : Avoid inhalation of product. Handle in an efficient fume hood or equivalent system.  
**Eye** : Avoid eye contact. Wear safety spectacles or goggles.  
**Hands and Body** : Avoid skin contact. Wear rubber gloves and protective clothing.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** : White colored powder  
**Physical Constants** : -  
**Molecular Formula** :  $C_{20}H_{30}N_2O_6P_2$   
**Formula Weight** : 456.41 amu  
**Water Solubility** : Not available  
**Density** : Not available  
**Melting Range** : Not available  
**Flash Point** : Not available



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## 10. STABILITY AND REACTIVITY

**Specific Hazard** : -  
**Incompatibilities** : -  
**Decomposition** : Hazardous products of decomposition may include: carbon monoxide, carbon dioxide, hydrogen chloride (hydrochloric acid), oxides of nitrogen, nitric acid.

## 11. TOXICOLOGICAL INFORMATION

**RTECS Number** : Not listed  
**Acute Toxicity** : -  
**LD50** : No data reported

## 12. ECOLOGICAL EFFECTS

**General** : Take care to prevent chemicals from entering the ground, water courses or drainage systems.

## 13. DISPOSAL CONSIDERATIONS

**Disposal** : Disposal should be via an approved contractor and should take full account of local regulations.

## 14. TRANSPORT INFORMATION

**UN Number** : None  
**Land Transport** : -  
**ADR/RIC Code/Class** : Not Restricted  
**Maritime Transport IMDG Code/Class** : Not Restricted  
**Air Transport IATA Code/Class** : Not Restricted

## 15. REGULATORY INFORMATION

**CAS Number** : 174397-53-6  
**EINECS Number** : Not listed  
**EEC Number** : -  
**UN Number** : None  
**RTECS Number** : Not listed  
**Hazard Indication** : No specific hazard  
**Risk and Safety Phrases** : None specified - Exercise all due care in use  
**TSCA** : Not listed. For research and development use only.

## 16. OTHER INFORMATION

**DISCLAIMER**  
For R&D use only. Not for drug, household or other uses