



Product Information (203) 740-3471 / Emergency Assistance CHEMTREC 1-800-424-9300

# Material Safety Data Sheet

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### Identification

Product Name: TETRAPOTASSIUM PYROPHOSPHATE 60% SOLUTION

### Use of the ingredient or preparation

Detergent builder, sequestrant, dispersant, moisture binder for meat, emulsifier and suspending agent in foods, etc. May be used to treat drinking water up to 29 mg/L.

### Company information

PHARMCO-AAPER.  
58 Vale Road  
Brookfield, Connecticut 06804, USA  
Phone (203) 740-3471  
Fax (203) 740-3481

PHARMCO-AAPER.  
1101 Isaac Shelby Drive  
Shelbyville, KY 40065  
Phone (502) 633-0650  
Fax (502) 633-0685

Emergency Contact:

CHEMTREC 1-800-424-9300

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Composition

Substance CAS No. EINECS No. % w/w Risk Phrases

Tetrapotassium Pyrophosphate 7320-34-5 230-785-7 60 None  
Water 7732-18-5 231-791-2 40 None

## 3. HAZARDS IDENTIFICATION

### Classification of the substance/preparation

EC Classification None  
Safety Phrase None

### Human Health Effects

CAUTION!  
CORROSIVE TO ALUMINUM  
CAUSES EYE IRRITATION

Eye Contact: Causes redness, tearing and irritation based on toxicity tests of TKPP solution.

Skin Contact: Practically nonirritating based on toxicity studies on TKPP solution.

Inhalation: No information.

Ingestion: No more than slightly toxic if swallowed based on toxicity studies TKPP. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

#### **Environmental Effects**

This material is not expected to product any significant adverse environmental effects when recommended use instructions are followed.

### **4. FIRST AID MEASURES**

#### **General**

Likely Routes of Exposure: Skin contact

#### **Eye Contact**

Immediately flush with plenty of water for at least 15 minutes. Get medical attention. Remove material from eyes, skin and clothing.

#### **Skin contact**

Immediate first aid is not likely to be required. However, this material can be removed with water. Wash heavily contaminated clothing before reuse.

#### **Inhalation**

Immediate first aid is not likely to be required. However, if symptoms occur, remove to fresh air.

#### **Ingestion**

Immediate first aid is not likely to be required. A physician or Poison Control Center can be contacted for advice.

### **5. FIRE FIGHTING MEASURES**

#### **Extinguishing media**

Not combustible. No special requirement.

#### **Unsuitable extinguishable media**

Not combustible. No special requirement.

#### **Exposure hazards**

None known.

#### **Protective equipment**

As a general precaution, firefighters & others exposed, wear self-contained breathing apparatus.

### **6. ACCIDENTAL RELEASE MEASURES**

#### **Personal precautions**

Avoid unnecessary exposure and remove all material from eyes, skin and clothing.

#### **Environmental precautions**

Small quantities: Avoid discharge into the environment.  
Large quantities: Avoid discharge into the environment.

### **Method for cleaning up**

Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with a suitable absorbent and then place in a corrosion resistant chemical waste container. Do not allow spillage into sewers, streams or storm conduits.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

## **7. HANDLING AND STORAGE**

### **Handling:**

Avoid contact with eyes.  
Wash thoroughly after handling.

Keep container closed.  
Use only with adequate ventilation.

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

### **Engineering measures**

Provide natural or mechanical ventilation to minimize exposure. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment. Consult National Fire Protection Association (NFPA) Standard 91 for design of exhaust systems.

### **Storage**

Store in a cool, dry place to maintain product performance. Recommended materials of construction for TKPP solutions include polypropylene and stainless steels. Mild steel is not satisfactory because the solution dissolves rust (oxides of iron) contaminating the solution. Aluminum is also not satisfactory because it is subject to corrosion, including severe pitting.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Occupational Exposure limit**

OSHA and ACGIH have not established specific exposure limits for this material.

Components referred to herein may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be used.

### **Respiratory protection**

Avoid breathing vapor and/or mist. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Refer to OSHA 29 CFR 1910.133 or European Standard EN 149.

### **Hand/Skin protection**

Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

### **Eye protection**

When there is significant potential for eye contact, wear chemical goggles and have eye flushing

equipment available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General information

Chemical Formula:  $K_4P_2O_7$   
Appearance: Slightly viscous, clear liquid  
Odor: None

### Important health, safety and environmental information

pH: 10.35 - 10.40 (as a 1% solution @ 25 degrees C)  
Boiling Point (@ 760 mm Hg): > 230 degrees C  
Freezing Point: < -50 degrees C  
Specific Gravity: 1.732 @ 25/15.5 degrees C  
Solubility in Water: > 60% @ 20 degrees C;  
Not much more than 64% @ 20 degrees C  
14.44 lbs./gallon @ 25 degrees C

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

## 10. STABILITY AND REACTIVITY

Product is stable under normal conditions of storage and handling.

### Conditions to avoid

None known.

### Materials to avoid

Severely corrosive to aluminum based on DOT, 49 CFR criteria.

### Hazardous decomposition

None known.

## 11. TOXICOLOGICAL INFORMATION

### Laboratory data

Data from ICL Performance Products LP single-dose (acute) animal studies with this material are given below:

Oral - rat LD50: 2,980 mg/kg; slightly toxic  
Dermal - rabbit LD50: > 7,940 mg/kg; practically nontoxic  
Eye Irritation - rabbit: severely irritating  
Skin Irritation - rabbit: 0.5/8.0 (24-hr. exposure); practically nonirritating

Following repeated exposure (13-weeks) to this product in their food, kidney damage with changes in body weight, food consumption, clinical parameters and organ weights were reported at high-dose levels in rats.

This material has been defined as a hazardous chemical under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

## 12. ECOLOGICAL INFORMATION

### **Environmental toxicity**

The following data have been classified using the criteria adopted by the European Economic Community (EEC) for aquatic organism toxicity.

96 hr. LC50 >100 mg/L (Rainbow trout & Medina, Inland silverside) - Practically non-toxic [FMC I89-1090 & 1091]

96 hr. LC50 >100 mg/L (Mysid shrimp) - Practially non-toxic [FMC I89-1089]

48 hr. EC50 >100 mg/L - Practically non-toxic (Daphnia magna) [FMC I89-1092]

### **Environmental fate**

ICL Performance Products LP has not conducted biodegradation studies with this product since when dissolved / hydrolyzed in water it yields completely mineralized materials.

## **13. DISPOSAL CONSIDERATIONS**

### **European waste catalog number**

The data provided in this section is for information only. Please apply the appropriate classification for your waste.

06 03 07 Waste from inorganic chemical processes, waste salts and their solutions, phosphates and related solid salts

### **Disposal Considerations**

This material when discarded is not a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Dry material may be landfilled or recycled in accordance with local, state and federal regulations. Consult your attorney or appropriate regulatory officials for information on such disposal.

## **14. TRANSPORT INFORMATION**

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

### **Road/Rail, Sea and Air**

IMDG/UN Corrosive liquid, basic, inorganic, n.o.s. (tetrapotassium pyrophosphate solution), 8, UN3266, PG III

ICAO/IATA Corrosive liquid, basic, inorganic, n.o.s. (tetrapotassium pyrophosphate solution), 8, UN3266, PG III

RID/ADR Corrosive liquid, basic, inorganic, n.o.s. (tetrapotassium pyrophosphate solution), 8, UN3266, PG III

Canadian TDG Corrosive liquid, basic, inorganic, n.o.s. (tetrapotassium pyrophosphate solution), 8, UN3266, PG III

US DOT \*Corrosive liquid, basic, inorganic, n.o.s. (tetrapotassium pyrophosphate solution), 8, UN3266, PG III

\*In the US, this product is classified solely because of its corrosive effect to aluminum. In accordance with 49 CFR 173.154 (d)(1), when shipped by motor vehicle or rail cars in stainless steel bulk containers, this product will NOT be classified as a hazardous material. However, if shipped in non-bulk plastic containers that may be transported in aluminum motor vehicle or rail cars, this product will be classified as a hazardous material. ICL Performance Products LP packages this product in accordance with 49 CFR 173.203 (Non-bulk) and 173.241 (Bulk).

## 15. REGULATORY INFORMATION

### EC Label

None

### Chemical Inventory

USA TSCA: Listed  
Canada DSL: Listed  
EC: Listed  
Australia: Listed

Japan: Listed  
Korea: Listed  
Philippines: Listed  
China: Listed

WHMIS Classification: E - Corrosive Material

SARA Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370): Immediate

Section 302 Extremely Hazardous Substances: Not Applicable

Section 313 Toxic Chemical(s): Not Applicable

CERCLA Reportable Quantity: Not Applicable

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation and the MSDS contain all the information required by the Canadian Controlled Products Regulation.

Refer to Section 11 for OSHA Hazardous Chemical(s) and Section 13 for RCRA classification.

## 16. OTHER INFORMATION

	<u>Health</u>	<u>Fire</u>	<u>Reactivity</u>	
Suggested NFPA Rating	2	0	0	
Suggested HMIS Rating	2	0	0	J J = splash goggles, gloves, synthetic apron, combination dust & vapor respirator

The information contained herein is based on data considered to be accurate. However, no warranty is expressed regarding the accuracy of these data or the results to be obtained from the use thereof. It is the user's obligation to determine the conditions of safe use of the product.