



# *Material Safety Data Sheet*

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### Identification

Product Name: Dipotassium Phosphate 50% Aqueous Solution  
Reference Number: AST10006  
Date: April 20, 2006

### Use of the substance or preparation

Specialty fertilizers, automotive antifreeze formulations, nutrient for antibiotic production, pharmaceuticals, emulsifier in non-dairy creamers, humectant, etc. May be used to treat drinking water up to 18.4 mg/L (35.6 mg/L for 50% solution).

This material is certified to ANSI/NSF Standard 60 by NSF® International for use in potable water systems.

### Company/Undertaking Identification:

**ICL PERFORMANCE PRODUCTS LP**  
622 Emerson Road - Suite 500  
St. Louis, Missouri 63141

Emergency telephone: In USA call CHEMTREC: 1 800 424 9300  
In Canada call CANUTEC: 1 613 996 6666

General Information: +1 800 244 6169 (Worldwide)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Composition

<u>Substance</u>	<u>CAS No.</u>	<u>%w/w</u>	<u>EINECS No.</u>	<u>Risk Phrase</u>
Dipotassium Phosphate (DKP)	7758-11-4	50%	231-834-1	None
Water	7732-18-5	50%	231-791-2	None

## 3. HAZARDS IDENTIFICATION

### Classification of the substance/preparation

None

### Human health effects

CAUTION!  
CORROSIVE TO ALUMINUM

EYE CONTACT: No more than slightly irritating based on toxicity studies on DKP.

SKIN CONTACT: No more than slightly toxic or slightly irritating based on toxicity studies on DKP.

INHALATION: No information.

INGESTION: No more than slightly toxic if swallowed based on toxicity studies on DKP. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed. Large doses may cause nausea, vomiting and diarrhea.

Refer to Section 11 for toxicological information.

#### **Environmental effects**

On the basis of available information, this material is not expected to produce any significant adverse environmental effects when recommended use instructions are followed.

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

#### **General**

Likely Routes of Exposure: skin contact and inhalation.

#### **Eye contact**

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

#### **Skin contact**

Immediate first aid is not likely to be required. However, this material can be removed with water. Remove material from eyes, skin and clothing. 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 applicable.

#### **Unsuitable extinguishing media**

Not applicable.

#### **Exposure hazard**

Not applicable.

#### **Protective equipment**

Not applicable.

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

#### **Personal precautions**

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

**Environmental precaution**

Small quantities: See below.

Large quantities: See below.

**Methods 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**

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin and clothing.

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

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Occupational Exposure Limits**

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

**Respiratory protection**

Avoid breathing vapor or mist. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure limits are exceeded. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH / MSHA or the manufacturer. Refer to U.S. OSHA regulations 29 CFR 1910.134 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**

This product does not cause significant eye irritation or eye toxicity requiring special protection. Use good industrial practice to avoid eye contact.

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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General information

Chemical Formula:  $K_2HPO_4$   
Appearance: Clear solution  
Odor: None

### Important health, safety and environmental information

pH: 10.3  
Boiling Point @ 760 mm Hg: 108 degrees C  
Freezing Point: -10 degrees C  
Viscosity: 13 centipose @ 5 degrees C  
Specific Gravity: 1.53 @ 20 degrees C  
Solubility in Water: Infinitely soluble

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

### 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:

#### Dipotassium Phosphate Anhydrous:

Oral - female rat LD50: 4,750 mg/kg; slightly toxic  
Oral - male rat LD50: 8,100 mg/kg; practically nontoxic  
Dermal - rabbit LD50: > 5,000 mg/kg; practically nontoxic  
Eye Irritation - rabbit (24-hr. exp.): minimally irritating  
Skin Irritation - rabbit (24-hr. exp.): 1.9/8.0; slightly irritating  
Skin Irritation - rabbit (4-hr. exp.): slightly irritating

Dogs given this material in their diet or by oral administration for a period up to 38 weeks showed kidney effects and/or damage and blood changes.

#### 50% Dipotassium Phosphate Solution:

DOT - Aluminum corroded at 440 mils per year – Corrosive. Refer to Section 14 for Transportation information.

## 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.

Algae: 10-day EC50 *Chlorella vulgaris*: 25 mg/L: Harmful

No definitive fish or invertebrate toxicity data was available for this material. Available data for similar materials suggests that this material would be practically nontoxic to fish and invertebrates (LC50 or EC50 > 100 mg/L).

**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**

Unknown

**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: Undetermined  
ICOA/IATA: Undetermined  
RID/ADR: Undetermined  
Canadian TDG: Corrosive liquid, basic, inorganic, n.o.s. (dipotassium phosphate solution),8,  
UN3266, III  
US DOT: \*Corrosive liquid, basic, inorganic, n.o.s. (dipotassium phosphate solution),8,  
UN3266, III

\*This product is classified solely because of its corrosive effect to aluminum. In accordance with 49 CFR 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**

Undetermined

**Chemical Inventory**

USA TSCA: Listed  
Canada DSL: Listed  
EC: Listed

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WHMIS Classification: E- Corrosive Material

**Additional information**

SARA Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370): Not Applicable  
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 contains all the information required by the Canadian Controlled Products Regulation.

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

**16. OTHER INFORMATION**

	Health	Fire	Reactivity	Additional Information
Suggested NFPA Rating	1	0	0	
Suggested HMIS Rating	1	0	0	H H = Splash goggles, gloves, synthetic apron, dust & vapor respirator

Reason for revision: Revised section 1. Supersedes MSDS dated: November 1, 2005  
Drafted in accordance with ECC Dir 2001/58/EC

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