



**ICL Performance
Products LP**

Material Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY UNDERTAKING

Identification

Product Name Tripotassium Phosphate Anhydrous (TKP)
Reference Number AST 10063
Date April 21, 2006

Use of the substance or preparation

Food Ingredient, emulsifier, alkaline buffer, drinking water treatment

Company Information:

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> |
|--|---------------|-------------|------------------|--------------------|
| Tripotassium Phosphate (Potassium phosphate, tripotassium orthophosphate) | 7778-53-2 | 100 | 231-907-1 | R 36/37/38 |

3. HAZARDS IDENTIFICATION

Classification of the substance/preparation

EC Classification X_i – Irritant
Safety phrase S22, S24, S25, S26, S37, S38, S39

Human Health Effects

This product causes eye irritation. This product may cause skin pain and redness. Inhalation of the dust may cause irritation of the nose, throat, coughing and sneezing. Ingestion may injure mouth, throat and gastrointestinal tract.

Environmental Effects

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

WARNING STATEMENTS

WARNING!

CAUSES EYE BURNS

CAUSES SKIN AND RESPIRATORY TRACT IRRITATION

4. FIRST-AID MEASURES

General

If in eyes or on skin, immediately flush with water for at least 15 minutes.

Eye contact

Immediately flush with plenty of water at least 15 minutes. Obtain medical attention from an eye specialist.

Skin contact

Immediately flush with plenty of water at least 15 minutes. Obtain medical advice if there are persistent symptoms.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Inhalation of the dust may irritate the nose and throat, coughing and sneezing. Obtain medical advice if there are persistent symptoms.

Ingestion

If swallowed, do NOT induce vomiting. Rinse mouth with water. Contact a Poison Control Center. Never give anything to an unconscious person. Ingestion may injure mouth, throat and gastrointestinal tract.

NOTES TO MEDICAL DOCTOR: Tripotassium phosphate is a strong alkali that removes sebaceous oils leaving skin unprotected and may cause chemical burns. Exposed tissues should be flushed thoroughly with water, and eye exposure warrants consultation with an ophthalmologist. Ingestion may result in nausea, vomiting, and burns, especially to the esophagus. Attempts to neutralize ingested material with acids are not recommended. This may cause excess heat and gas production that can increase the risk of perforation. Dilution may do likewise, but when the dry material is ingested, adherence of particles to the esophageal mucosa may assure perforation so that immediate drinking of cold water or milk is advised. Burns of the esophagus and/or stomach sufficient to lead to perforation or stricture formation may occur without oropharyngeal burns. Limited esophagoscopy is recommended to determine if deep and/or circumferential burns are present, because they are most likely to result in esophageal stenosis. Prevention of the latter is controversial; many authorities favor early corticosteroid and/or prophylactic dilation therapy.

5. FIRE FIGHTING MEASURES

Extinguishing media

Non-combustible.

No special requirement.

To extinguish fire use water spray, dry chemical, carbon dioxide, or appropriate foam

Unsuitable extinguishing media

Non-combustible

No special requirement.

Exposure hazards

No special considerations.

Protective equipment

As a general precaution, firefighters, and others exposed, wear full protective clothing and a self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Minimize dust exposure and provide adequate ventilation/respiratory protection; prevent eye and skin contact. For emergencies or instances where the exposure levels are unknown, use a full-face piece positive-pressure, air supplied respirator and full personnel protective clothing.

Environmental precautions

Small quantities: Present no environmental problem.

Large quantities: As general precaution, avoid discharge into the environment.

Methods for cleaning up

In case of spill, sweep or vacuum the product and place into a container for reclamation or disposal. Wet sweeping or vacuum may be used to minimize dust. Flush residual areas with plenty of water.

7. HANDLING AND STORAGE

Handling

Do not get in eyes, on skin, or on clothing

Avoid breathing dust

Keep container closed

Use only with adequate ventilation

Wash thoroughly after handling

Do not taste or swallow

Emptied container retains product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed. The reuse of this material's container for non-industrial purposes is prohibited and any reuse must be in consideration of the data provided in this Material Safety Data Sheet.

Engineering measures

Ensure adequate ventilation. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment.

Storage

This product is very hygroscopic and should be stored in a dry area in poly or vapor barrier bags to prevent moisture pickup and caking. Keep container tightly closed and dry.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Occupational exposure limit**

10 mg/m³ ACGIH (inhalable) 3 mg/m³ ACGIH (respirable) 8-hr TWA

Respiratory protection

Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment. Refer to U.S. OSHA 29 CFR 1910.134 or European Standard EN 149.

Hand protection

Wear chemical resistant hand protection that would prevent direct skin contact with the product.

Eye protection

Use chemical safety goggles and/or full face shield where dust is prevalent. Maintain eye wash station in the work area. Refer to OSHA 29 CFR 1910.133 or European Standard EN 166.

Skin protection

Wear chemical resistant clothing that would prevent direct skin contact with the product (long sleeves and long trousers).

9. PHYSICAL AND CHEMICAL PROPERTIES**General Information**

| | |
|-------------------|--------------------------------------|
| Chemical Formula: | K ₃ PO ₄ |
| Form | powder, free flowing |
| Colour | White |
| Odour | Odourless |
| Appearance: | White, free-flowing granular product |

Important health, safety and environmental information

| | |
|---|--|
| pH: | 11.9 (as a 1% solution @ 25 degrees C) |
| Bulk Density: | 945-961 g/L |
| Solubility in Water (g/100 g H ₂ O): | 79.5@ 0 °C 105.8@ 25 °C 176.2@ 50 °C 178.6@ 60 °C |
| Melting point: | 1340 °C or 2444 °F |

Other Information

| | |
|---|----------------|
| Flash point: | not applicable |
| Lower and upper explosion limits (UEL/LEL): | not applicable |
| Minimum ignition temperature: | not applicable |
| Particulate size and distribution | < 0.64 cm |

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 and handling. Solutions of this product will hydrolyze to form ortho-phosphate and other shorter chain phosphates. Dissolution is impacted by temperature and pH of the system. Phosphorus oxides may form when heated to decomposition.

Conditions to avoid

Incompatibles. Store material away from moisture

Materials to avoid

Acidic materials. This material could be corrosive to aluminum surfaces because of high pH.

Hazardous decomposition products

Oxides of phosphorus.

11. TOXICOLOGICAL INFORMATION

Laboratory data

| | |
|--|---------------------|
| Oral LD ₅₀ (rat): | 4500 mg/kg. |
| Dermal LD ₅₀ (rabbit): | > 4640 mg/kg. |
| Eye Irritation (rabbit): | severely irritating |
| Mean EC eye irritation scores (rabbit) | corrosive |
| Skin irritation (rabbit): | slightly irritating |

Carcinogenicity:

| | |
|--------|------------|
| IARC: | Not Listed |
| NTP: | Not Listed |
| OSHA: | Not Listed |
| ACGIH: | Not Listed |

Additional information

Acute effects from overexposure: The product is extremely irritating to the eyes and minimally irritating to skin. Inhalation of dust may irritate nose and throat. Ingestion may injure mouth, throat and gastrointestinal tract.

12. ECOLOGICAL INFORMATION

Environmental Toxicity

ICL Performance Products LP has not conducted environmental studies on this product. If properly handled, this material should not present a serious environmental hazard.

Environmental Fate

Inorganic compounds in contact with the soil, sub-surface or surface waters may be taken up by plants and utilized as essential nutrients. Phosphates may also form precipitates, usually with calcium or magnesium. The resultant compounds are insoluble in water and become a part of the soil or sediment. The term biodegradability, as such, is not applicable to inorganic compounds.

13. DISPOSAL CONSIDERATIONS**European waste catalog number**

Not available

Disposal Considerations

This material when discarded is not a hazardous waste as that term is defined by the U.S. Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Dry material may be land filled 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**Road/Rail, Sea and Air**

| | |
|--------------|----------------|
| IMDG/UN | Not classified |
| ICAO/IATA | Not classified |
| RID/ADR | Unknown |
| Canadian TDG | Not classified |
| U.S. DOT | Not classified |

15. REGULATORY INFORMATION**EC label**

| | |
|---------------|---|
| Hazard symbol | Xi – Irritant |
| Risk Phrase | R36/37/38 – Irritating to eyes, respiratory system and skin |
| Safety Phrase | S22 – Do not breath dust |
| | S26 – In case of contact with eyes, immediately flush with plenty of water and seek medical attention |
| | S24/25 – Avoid contact with skin and eyes |
| | S36/37 – Wear suitable protective clothing and gloves |
| | S38 – In case of insufficient ventilation, wear suitable respiratory equipment |

Chemical Inventory

| | |
|-------------|--------|
| USA TSCA: | Listed |
| Canada DSL: | Listed |
| EC: | Listed |

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| | |
|-------------|--------|
| Japan | Listed |
| Australia | Listed |
| Korea | Listed |
| Philippines | Listed |
| China | Listed |

Additional information

WHMIS Classification D2(B) – Materials Causing Other Toxic Effects

SARA Hazard Notification

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

Section 302 Extremely Hazardous Substances: None

Section 313 Toxic Chemical(s): None

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 Hazardous Chemical(s) and Section 13 for RCRA classification.

16. OTHER INFORMATION

| | <u>Health</u> | <u>Fire</u> | <u>Reactivity</u> | <u>Additional Information</u> |
|-----------------------|---------------|-------------|-------------------|--|
| Suggested NFPA Rating | 3 | 0 | 0 | |
| Suggested HMIS Rating | 3 | 0 | 0 | J = Splash goggles, gloves, synthetic apron, dust and 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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