

MATERIAL SAFETY DATA SHEET

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Date: January 2002
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I. PRODUCT IDENTIFICATION

Trade Name: Dipotassium Phosphate

Chemical and common name: Dipotassium Hydrogen Phosphate; Dibasic Potassium Phosphate

CAS Number: [7758-11-4]

Appearance and odor: White powder deliquescent; odorless

II. HAZARDS IDENTIFICATION

Emergency Overview

Continuous contact may cause skin irritation.

Potential Health Effects

Eye: Minimally to moderately irritating to unwashed eyes.

Skin: Irritation from continuous contact has been reported during manufacturing when protective measures for contact or personal hygiene procedures are not followed.

Inhalation: No significant inhalation hazard when exposures are properly controlled.

Chronic: Not available

III. FIRST AID

EYES: Flush eyes with large amounts of water. If irritation develops or persists, get medical attention.

SKIN: Get medical attention if irritation develops or persists. Flush skin with plenty of soap and water.

INGESTION: Drink plenty of water. Never give anything by mouth to an unconscious person. Get medical aid if irritation or symptoms occur.

INHALATION: Remove from exposure to fresh air immediately. If breathing difficulty or discomfort occurs, get medical attention.

NOTES TO PHYSICIAN: Large doses may cause nausea, vomiting and diarrhea. Systemic oral toxicity is extremely rare and has consisted of Acidosis and Hypocalcemic Tetany.

IV. FIRE FIGHTING MEASURES

General Information: Dipotassium Phosphate and its solutions do not burn or support combustion.

Extinguishing Media: This material does not burn. Extinguish fire using appropriate extinguishing media for the surrounding fire.

III. ACCIDENTAL RELEASE MEASURES

Spills/Leaks: Material should be swept up for salvage or disposal.

IV. HANDLING AND STORAGE

Handling: Exposure to the product may result in eye or skin irritation under normal conditions of use. In the event of contact, immediately flush eyes with water; wash off skin.

Ventilation: Control measures such as local exhaust ventilation may be required where excessive airborne dust loading may be present

Storing: This product should be stored in a clean dry area to maintain product quality and to prevent possible contamination by other chemicals.

V. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Measures:

Prevention of eye and skin contact may be required under normal use conditions. However, severe agitation or dispersion into the work environment may require enclosure or the process and local exhaust ventilation at the source to prevent release into air. If work environment controls are not implemented, the personal protection for inhalation, skin and eye may be required.

Personal Protective Equipment

Eyes: Wear chemical safety goggles when airborne dust is expected

Skin: Wear impervious gloves when continuous contact is expected.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Use approved dust respiratory protection if release of the product into the work area is expected.

VI. PHYSICAL AND CHEMICAL PROPERTIES.

Physical state: Powder, Granules or Solution
Color: White
Odor: Odorless
Boiling Point: Not available
Freezing/Melting Point: Not Available
Autoignition Temperature: Non Combustible
Flash Point: Non Combustible
Vapor pressure: Non-Volatile
pH: 8.8 – 9.4
Explosion Limits, lower: Not applicable
Explosion Limits, upper: Not applicable
Solubility in water: 63% @ 25° C
Specific Gravity/Density: 1.23 G/ML
Molecular Formula: K₂HPO₄

VII. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: None

Incompatibilities with Other Materials: None

Hazardous Decomposition Products: None

Hazardous Polymerization: Will not occur.

VIII. TOXICOLOGY INFORMATION

Eye Contact: Mildly irritating to unwashed eyes (rabbit)

Skin Contact: Minimally irritating at 300 MG/KG; Non-irritating at 20 MG/KG (rabbit)

Skin Absorption: Practically nontoxic, LD₅₀ > 300 MG/KG (rabbit)

Inhalation: No published data

Ingestion: Practically nontoxic, LD₅₀ > 500 MG/KG (rat)

Acute Effects from Overexposure: Moderate irritant to unwashed eyes and mild irritant to washed eyes by animal tests. Plant workers often experience skin irritation/rash when exposed to dust.

Chronic Effects from Overexposure: Human industrial experience has shown neither significant inhalation hazard nor skin irritant for low level long-term exposure
Effects considered include: Sensitivities, Carcinogenicity, Teratogenicity, Mutagenicity, Synergistic products, and medical conditions generally being aggravated by exposure.

IX. ECOLOGICAL INFORMATION

Environmental Fate: Inorganic Phosphates 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.

Environmental Effects: Aquatic Toxicity data:
96 hr LC50 > 100 MG/L, Non-toxic (Rainbow Trout, Inland Silversides and Mysid Shrimp)
48 hr EC50 > 100 MG/L, Non-toxic (Daphnia Magna)

X. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

XI. TRANSPORTATION INFORMATION

US DOT:
Proper shipping Name: None, not regulated
Classification: Not Regulated
Labels: Not Required
Marking: Not Required
Placard: Not Required
IMDG: None, Not Regulated
IATA: None, Not Regulated
UN Number: None
Hazardous Substance/RQ: Not Listed
49 STCC Number: None
Canadian TDG: No information available

XII. REGULATORY INFORMATION

U.S. FEDERAL:
TSCA – CAS# 7758-11-4 is listed on the TSCA inventory.

CANADA
CAS# 7758-11-4 is listed on Canada's DSL List

XIV. OTHER INFORMATION

Additional Information:
No additional information available