

# CALCIUM PHOSPHATE MONOBASIC MONOHYDRATE

H.M.S. Beagle  
180 English Landing Drive  
Suites 110-120  
Parkville, MO 64152  
816-587-9998  
www.hms-beagle.com

## 1. Product Identification

**Synonyms:** Calcium Dihydrogen Phosphate; Phosphoric acid, calcium salt (2:1), monohydrate; acid calcium phosphate; monocalcium orthophosphate; calcium superphosphate

**CAS No.:** 7758-23-8

**Molecular Weight:** 252

**Chemical Formula:**  $\text{Ca}(\text{H}_2\text{PO}_4)_2 \cdot \text{H}_2\text{O}$

**Product Codes:** CHEM-011

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Calcium Phosphate Monobasic	7758-23-8	99 - 100%	Yes

## 3. Hazards Identification

### Emergency Overview

**WARNING! DIRECT CONTACT WITH EYES MAY CAUSE SEVERE IRRITATION OR BURNS. MAY CAUSE RESPIRATORY TRACT IRRITATION.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

Health Rating: 2 - Moderate

Flammability Rating: 0 - None

Reactivity Rating: 0 - None

Contact Rating: 3 - Severe

Lab Protective Equip: GOGGLES & SHIELD; LAB COAT & APRON; VENT HOOD; PROPER GLOVES

Storage Color Code: Green (General Storage)

### Potential Health Effects

#### Inhalation:

Inhalation of dust may cause irritation to the respiratory tract.

#### Ingestion:

No adverse effects expected. Extremely large oral dosages may produce gastrointestinal disturbances.

#### Skin Contact:

No adverse effects expected but may cause minor skin irritation.

#### Eye Contact:

Direct contact with the eyes is irritating and may cause corneal damage.

**Chronic Exposure:**

No information found.

**Aggravation of Pre-existing Conditions:**

No information found.

## 4. First Aid Measures

**Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**

Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

**Skin Contact:**

Wash exposed area with soap and water. Get medical advice if irritation develops.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

## 5. Fire Fighting Measures

**Fire:**

Not considered to be a fire hazard.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Small amounts of residue may be flushed to sewer with plenty of water.

## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

None established.

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the

emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear protective gloves and clean body-covering clothing.

**Eye Protection:**

Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

## 9. Physical and Chemical Properties

**Appearance:**

White, crystalline powder.

**Odor:**

Odorless.

**Solubility:**

2 g in 100 g of water

**Density:**

2.22 @ 18C / 4C

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

203C (397F)

**Melting Point:**

100C (212F)

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

No information found.

**Evaporation Rate (BuAc=1):**

Not applicable.

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

No information found.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

No incompatibility data found.

**Conditions to Avoid:**

No information found.

## 11. Toxicological Information

Oral rat LD50 = 17,500 mg/Kg.

Ingredient	\Cancer Lists\ -NTP Carcinogen-		IARC Category
	Known	Anticipated	
Calcium Phosphate Monobasic (7758-23-8)	No	No	None

## 12. Ecological Information

**Environmental Fate:**

No information found.

**Environmental Toxicity:**

No information found.

## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## 14. Transport Information

Not regulated.

## 15. Regulatory Information

Ingredient	TSCA	EC	Japan	Australia
Calcium Phosphate Monobasic (7758-23-8)	Yes	Yes	Yes	Yes

----- \Chemical Inventory Status - Part 2\  
-Canada-

Ingredient	Korea	DSL	NDSL	Phil.
Calcium Phosphate Monobasic (7758-23-8)	Yes	Yes	No	Yes

----- \Federal, State & International Regulations - Part 1\  
-SARA 302-    -SARA 313-

Ingredient	RQ	TPQ	List	Chemical Catg.
Calcium Phosphate Monobasic (7758-23-8)	No	No	No	No

----- \Federal, State & International Regulations - Part 2\  
-RCRA-    -TSCA-

Ingredient	CERCLA	261.33	8(d)
Calcium Phosphate Monobasic (7758-23-8)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No  
SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No  
Reactivity: No (Mixture / Solid)

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

## 16. Other Information

**NFPA Ratings:** Health: 1 Flammability: 0 Reactivity: 0

**Label Hazard Warning:**

WARNING! DIRECT CONTACT WITH EYES MAY CAUSE SEVERE IRRITATION OR BURNS. MAY CAUSE RESPIRATORY TRACT IRRITATION.

**Label Precautions:**

Avoid contact with eyes, skin and clothing.

Avoid breathing dust.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

**Label First Aid:**

In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes.

Call a physician if irritation develops or persists. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty.

**Product Use:**

Laboratory Reagent and Consumer Hobby

**Revision Information:**

No Changes.

**Disclaimer:**

\*\*\*\*\*

**H.M.S. Beagle and/or Rainbow House Alchemists, LLC, provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy.**

**This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. NEITHER H.M.S. BEAGLE NOR RAINBOW HOUSE**

**ALCHEMISTS, LLC MAKE NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF**

**MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, H.M.S. BEAGLE AND RAINBOW HOUSE**

**ALCHEMISTS, LLC, WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.**

\*\*\*\*\*

**Prepared by:** John Farrell Kuhns

Phone Number: 816-587-9998 (U.S.A.)