	Natural Enrichment Industries	
	Safety Data Sheet	
	Document: SDS for Tricacium Phosphate/ hydroxyapatite	
	Date:02/05/2001	Revision: 10
	Prepared by: Lab Services Director	Approved by: William M. Kuzma

Safety Data Sheet

Section 1. – Product and Company Information-----

Product Name: Calcium Hydroxyapatite
 Other Names: Tricalcium Phosphate, Calcium Phosphate Tribasic, Precipitated Calcium Phosphate, E341 iii
 Grade: Food Grade, FCC-IX

Company: Natural Enrichment Industries, LLC
 Street Address: 1800 West Oak St.
 City, State, Zip, Country: Herrin, IL, 62948, U.S.
 Emergency Telephone: 618-942-2112

Section 2. – Composition/Information of Ingredients-----


CAS #: 12167-74-7
 MF: HCA5013P3
 EC NO: 235-330-6
 EU NO: E341-III
 Formula (Approx.) $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$ (MW 1004.62g/mol)
 Appearance White, odorless powder; stable in air

Section 3. – Hazards Identification-----

Label Precautionary Statements

Irritant
 Irritating to eyes, respiratory system, and skin
 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
 Wear eye protection and suitable protective clothing

Health Rating: 0 – None
 Flammability Rating: 0 – None
 Reactivity Rating: 0 – None
 Contact Rating: 1 – Slight

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Potential Health Effects

Inhalation:

Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

Ingestion:

Causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting, and diarrhea.

Skin Contact:

May cause irritation with redness and pain.

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.

Section 4. – First Aid Measures-----

Inhalation:


Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Get medical attention.

Ingestion:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

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Eye Contact:

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

Section 5. – Fire Fighting Measures-----

Fire: Not considered to be a fire hazard.
 Explosion: Not considered to be an explosion hazard.
 Fire extinguishing Medium: Use any means suitable for extinguishing surrounding fire.
 Special Information: In the event of 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.


Section 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.

Section 7. – Handling and Storage-----

Store in a cool, dry, ventilated area. Protect against physical damage. Keep containers closed unless being used to maintain product physical and chemical properties. Observe all Warnings and precautions listed for this product.

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Section 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 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

Section 9. – Physical and Chemical Properties-----

Appearance: Fine, white, odorless powder.
 Solubility: Practically insoluble in water.
 Density: Variable (depending on manufacturing conditions) from 0.25 to 0.7 g/mL
 pH: Typically, 6.0 to 7.5

Section 10. – Stability and Reactivity-----


Stability: Stable under ordinary conditions of use and storage.
 Hazardous Decomposition Products: Thermal decomposition may produce toxic fumes of phosphorous oxides and/or phosphine.
 Hazardous Polymerization: Will not occur.
 Incompatibilities: Avoid storing near strong oxidizing agents.
 Conditions to Avoid: Excessive dust generation.

Section 11 – Toxicological Information-----

Known Carcinogen: No.
 Anticipated Carcinogen: No.
 IARC Category: None.
 California prop 65: N/A (No known carcinogenic effects)

Section 12. – Ecological Information-----

Environmental Fate: No Known Long-term contamination effects
 Environmental Toxicology: No Known toxicological effects.

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Section 13. – Disposal Considerations-----

Whatever cannot be saved for recovery or recycling should be disposed of at an approved and appropriate disposal facility. Dispose of waste containers in accordance with federal, state, and local requirements.

Section 14. – Transport Information-----

Not Regulated

Section 15. – Regulatory Information-----

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

Section 16. – Other Information-----

Product Use: Food additive (primary)
 Flow agent for mechanical processing of materials
 Polymer Suspension Aid
 Mild Desiccant
 Weak Acid Neutralizer

Product is Generally recognized as safe (GRAS) per 21CFR182.1217 section 182.1217 Calcium phosphate.

“(a) Product. Calcium phosphate (mono-, di-, and tribasic).

“(b) Conditions of use. This substance is generally recognized as safe when used in accordance with good manufacturing practice.”

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL-INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. NATURAL ENRICHMENT INDUSTRIES, LLC SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.