



Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identification

Product Name: MONOCALCIUM PHOSPHATE MONOHYDRATE
Reference Number: AST10022
Date: May 1, 2006

Use of the substance or preparation

Food Ingredient, fertilizer ingredient, fire extinguisher compound

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>
Monocalcium Phosphate Monohydrate	10031-30-8	100	not applicable*	R36/37/38

*Registration, classification, inventory and information found in Sections 2 thru 16 for this product are based upon the hydrated form of Monocalcium Phosphate, Anhydrous EINECS No. 231-837-1

3. HAZARDS IDENTIFICATION

Classification of the substance/preparation

EC Classification: None
Safety Phrase: S36

Human Health Effects

Contact with eyes or skin may cause irritation. Inhalation of dust may cause respiratory tract irritation. Irritation or burns to the gastrointestinal tract may occur following ingestion. Nausea, vomiting and diarrhea may also occur.

Environmental Effects

This material is not expected to product any significant adverse environmental effects when recommended use instructions are followed.

4. FIRST AID MEASURES

General

Local irritation from eye and skin contact may occur. Ingestions of large amounts may cause gastrointestinal irritation, nausea, vomiting, cramps, and diarrhea. May be irritating to the membranes of the mouth. Treatment is symptomatic and supportive.

Eye contact

Avoid contact with eyes. In case of contact with eyes, wash with the eyes plenty of water. Seek medical attention if needed. This dry powder may cause foreign body irritation in some individuals.

Skin contact

Remove this material from skin with plenty of soap and water. Prolonged contact with dry powder may cause drying or chapping of the skin.

Inhalation

Inhalation of the dust may cause coughing and sneezing. Remove to fresh air immediately. If breathing is difficult, give oxygen. If not breathing, give artificial respiration

Ingestion

If victim is conscious and alert, give 2-4 cupfuls (large amounts) of water to drink. Never give anything to an unconscious person. If discomfort persists, obtain medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing media

Non-combustible
No special requirement.

Unsuitable extinguishable media

Non-combustible
No special requirement.

Exposure hazards

No special considerations

Protective equipment

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

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

Environmental precautions

Small quantities: Avoid discharge into the environment

Large quantities: Avoid discharge into the environmental – See section 15

Method for cleaning up

Sweep, scoop or vacuum spill material, contaminated soil and other contaminated material and place in clean, dry containers for removal. Residual material can be flushed with water.

7. HANDLING AND STORAGE

Handling:

Handle in accordance with good industrial hygiene and safety practices.

Avoid contact with eyes.

Wash hands immediately after handling

Remove material from clothing.

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

Store in cool, dry place to maintain product performance.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure limit

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

OSHA PEL 15 mg/m³ (total dust) 8-hr TWA, 5 mg/m³ (respirable) 8-hr TWA

OSHA and ACGIH have not established specific exposure limits for this material. However, OSHA and ACGIH have established limits for particulates not otherwise regulated (PNOR) and particulates not otherwise classified (PNOC) which are the least stringent exposure limits applicable to dusts.

Respiratory protection

Avoid breathing dust. In case of insufficient ventilation, use approved respiratory protective equipment as described in OSHA 29 CFR 1910.134 or European Standard EN149. A dust respirator is recommended.

Hand/Skin protection

Wearing protective gloves is recommended; wash hands and contaminated skin thoroughly after handling.

Eye protection

Use good industrial practice to avoid eye contact. Wear appropriate protective safety eyeglasses or chemical safety goggles as described in OSHA eye and face regulation in 29 CFR 1910.133 or European Standard EN166.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Chemical Formula: Ca(H₂PO₄)₂ · H₂O

ICL Performance Products LP Material Safety Data Sheet

Material: Monocalcium Phosphate Monohydrate

Page 4 of 6

Reference No.: AST10022

May 1, 2006

Form: Crystals
Color: White
Odor: Odorless

Important health, safety and environmental information

pH: 4.6 (as a 1% solution)
Density: 1.2 g/ml
Solubility in Water: 18 gm/l @ 30 °C
Melting Point: 200 °C

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

Product is stable under normal conditions of storage and handling. Store in a cool, dry place to maintain product performance.

Conditions to avoid

None known

Materials to avoid

None known

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:

Oral - rat LD50:	7,100 mg/kg; practically nontoxic
Dermal - rabbit LD50:	>7,940 mg/kg; practically nontoxic
Eye Irritation - rabbit:	9.3/110.0; slightly irritating
Skin Irritation - rabbit: 0.0/8.0 (24-hr. exp.);	nonirritating

No adverse genetic changes were reported in standard tests using material and yeast cells. No birth defects were reported in mice, rats or rabbits given this material during pregnancy.

12. ECOLOGICAL INFORMATION**Environmental toxicity**

Invertebrate: 48-hr EC50 Daphnia magna: > 485 mg/L
Coldwater fish: 96-hr LC 50 Rainbow trout: > 1000mg/L

No algal toxicity data was available for this material.

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. The term biodegradability, as such, is not applicable to inorganic compounds.

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	Not hazardous for transportation
ICAO/IATA passenger aircraft	Not hazardous for transportation
RID/ADR	Unknown
Canadian TDG	Not hazardous for transportation
US DOT	Not hazardous for transportation

15. REGULATORY INFORMATION

EC Label

Hazard symbol:	None
R36/37/38	Irritating to eyes, respiratory system and skin
S36	Wear suitable protective clothing

Chemical Inventory

USA TSCA:	Listed*
Canada DSL:	Listed*
EC:	Listed*
Japan	Listed*
Australia	Listed+
Korea	Listed*
Philippines	Listed+
China	Listed+

* The anhydrous form of Monocalcium phosphate is listed in the above inventories.

+ These countries have the hydrated form of monocalcium phosphate included in their chemical inventories.

Other information

WHMIS Classification	Not Controlled
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 contain all the information required by the Canadian Controlled Products Regulation.

ICL Performance Products LP Material Safety Data Sheet

Material: Monocalcium Phosphate Monohydrate

Reference No.: AST10022

Page 6 of 6

May 1, 2006

16. OTHER INFORMATION

	<u>Health</u>	<u>Fire</u>	<u>Reactivit</u>	<u>Additional Information</u>
Suggested NFPA Rating	2	0	<u>Y</u> 0	
Suggested HMIS Rating	2	0	0	E E = safety glasses, gloves, dust respirator

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

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, ICL Performance Products LP makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ICL Performance Products LP be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS

AST10022.1610.doc