



Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identification

Product Name: PAN-O-LITE® LEAVENING AGENT
Reference Number: AST10029
Date: April 21, 2006

Use of the substance or preparation

Food Ingredient

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>
Sodium Aluminum Phosphate	7785-88-8		232-090-4	None
Monocalcium Phosphate Monohydrate	10031-30-8		*231-837-1	None
Calcium Carbonate	471-34-1		207-439-9	None
Precipitated Amorphous Silica	7631-86-9		231-545-4	None

* Based upon the hydrated form of Monocalcium Phosphate Anhydrous CAS No. 7758-23-8.

3. HAZARDS IDENTIFICATION

Classification of the substance/preparation

EC Classification: None
Safety Phrase: None

Human health effects

No significant hazards associated with this material.

EYE CONTACT: No more than slightly irritating based on toxicity studies with the components of this material. The dry powder may cause foreign body irritation in some individuals.

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SKIN CONTACT: No more than slightly toxic or slightly irritating based on toxicity studies with the components of this material. Prolonged contact with the dry powder may cause drying or chapping of the skin.

INHALATION: Inhalation of the dust may cause coughing and sneezing.

INGESTION: Not toxic if swallowed based on toxicity studies with the components of this material. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

Refer to Section 11 for toxicological information.

Environmental effects

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

4. FIRST AID MEASURES

General

Likely Routes of Exposure: Inhalation and skin contact

Eye contact

Immediate first aid is not likely to be required. However, this material can be removed with water. Remove material from eyes, skin and clothing. Wash heavily contaminated clothing before reuse.

Skin contact

Immediate first aid is not likely to be required. However, this material can be removed with water. Remove material from eyes, skin and clothing. Wash heavily contaminated clothing before reuse.

Inhalation

Immediate first aid is not likely to be required. However, if symptoms occur, remove to fresh air.

Ingestion

Immediate first aid is not likely to be required. A physician or Poison Control Center can be contacted for advice.

5. FIRE FIGHTING MEASURES

Extinguishing media

Not combustible.
No special requirements.

Unsuitable extinguishing media

Non-combustible.
No special requirements.

Exposure hazard

Not combustible.

Protective equipment

Not applicable.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

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

Environmental precautions

Small quantities: Note methods for cleaning up in the next section.

Large quantities: Note methods for cleaning up in the next section.

Methods for cleaning up

In case of spill, sweep, scoop or vacuum and remove. Flush residual spill area with water.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

7. HANDLING AND STORAGE

Handling

Product is stable under normal conditions of storage and handling. Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of material from eyes, skin and clothing.

Engineering measures

Provide natural or mechanical ventilation to minimize exposure. The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment. Consult National Fire Protection Association (NFPA) Standard 91 for design of exhaust systems.

Storage

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 MSDS.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

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

OSHA PEL

15 mg/m³ (total dust) 8-hr TWA

5 mg/m³ (respirable) 8-hr TWA

ACGIH TLV

10 mg/m³ (inhalable) 8-hr TWA

3 mg/m³ (respirable) 8-hr TWA

Components referred to herein may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be used.

Respiratory protection

Avoid breathing dust. Use NIOSH/MSHA approved respiratory protection equipment (full face piece recommended) when airborne exposure limits are exceeded (see below). Consult the

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respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Refer to U.S. OSHA regulations 29 CFR 1910.134 or European Standard EN 149.

Hand/Skin protection

Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

Eye protection

This product does not cause significant eye irritation or eye toxicity requiring special protection. Use good industrial practice to avoid eye contact. Refer to U.S. OSHA regulations 29 CFR 1910.133 or European Standard EN 166.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Chemical Formula: $\text{Na}_3\text{Al}_2\text{H}_{15}(\text{PO}_4)_8$ and $\text{Ca}(\text{H}_2\text{PO}_4)_2 \cdot \text{H}_2\text{O}$
Appearance: White powder
Odor: Odorless

Important health, safety and environmental information

Neutralizing Value: 99

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.

Conditions to avoid

None known

Materials to avoid

None known

Hazardous decomposition

None known

11. TOXICOLOGICAL INFORMATION

Laboratory data

ICL Performance Products LP has not conducted toxicity studies with this material and no data were found in a reasonably extensive search of the literature. However, data on the major components are given below:

Sodium Aluminum Phosphate (SALP)

Single-dose (acute) animal studies indicate that SALP is practically nontoxic orally (rat). No adverse effects were reported in dogs or rats repeatedly given SALP in their feed. In a similar study, microconcretions of the kidney tubules were the only adverse effect reported in rats fed

SALP for 90 days. No adverse effects were reported in dogs fed SALP (acidic form) for 6 months. No adverse genetic changes were reported in standard tests using bacterial cells.

Monocalcium Phosphate Monohydrate

Single-dose (acute) animal studies on monocalcium phosphate monohydrate, a similar material, indicate that it is practically nontoxic orally (rat) and after skin application (rabbit). It is slightly irritating to rabbit eyes and nonirritating to rabbit skin.

No birth defects were reported in mice, rats, and rabbits given monocalcium monohydrate during pregnancy. No adverse genetic changes were reported in standard tests with monocalcium phosphate monohydrate using bacterial and yeast cells.

Data from ICL Performance Products LP studies and/or the available scientific literature on the components of this material which have been identified as hazardous chemicals under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200) are discussed below:

Calcium Carbonate

Inhalation of calcium carbonate dust may cause respiratory tract irritation, sneezing and coughing. Calcium carbonate dusts may cause eye irritation and, following repeated or prolonged contact, skin irritation.

Precipitated Amorphous Silica

Inhalation of precipitated amorphous silica can cause drying of mucous membranes of the eyes, nose and throat (due to absorption of moisture and oils), which may result in irritation and occasional nose bleeds. Repeated exposure to precipitate amorphous silica has not been reported to have significant adverse health effects in workers; however, persons with breathing problems or lung disease may be at an increased risk. Laboratory studies in animals exposed by inhalation to precipitated amorphous silica report reversible lung effects.

12. ECOLOGICAL INFORMATION

Environmental toxicity

ICL Performance Products LP has not conducted environmental toxicity studies with this product.

Environmental Fate

ICL Performance Products LP has not conducted biodegradation studies with this product since when dissolved / hydrolyzed in water it yields completely mineralized materials.

13. DISPOSAL CONSIDERATIONS

European waste catalog number

The data provided in this section is for information only. Please apply the appropriate classification for your waste.

06 03 07 Waste from inorganic chemical processes, waste salts and their solutions, phosphates and related solid salts

Disposal considerations

This material when discarded is not a hazardous waste as 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

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

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Road/Rail, Sea and Air

IMDG/UN not regulated for transport
ICAO/IATA not regulated for transport
RID/ADR not regulated for transport
Canadian TDG not regulated for transport
US DOT not regulated for transport

15. REGULATORY INFORMATION

EC label

None

Chemical Inventory

USA TSCA All components listed except that since hydrated materials could not be reported on the Inventory of Chemical Substances published by the U.S. Environmental Protection Agency (EPA) under authority of the Toxic Substances Control Act (TSCA), phosphoric acid calcium salt monohydrate was reported as anhydrous with CAS No. 7758-23-8.

Canada DSL Listed, with some exception for hydrated material

Additional information

WHMIS Classification: Not Controlled

SARA Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370): Immediate
Section 302 Extremely Hazardous Substances: Not Applicable
Section 313 Toxic Chemical(s): Not Applicable

CERCLA Reportable Quantity: Not Applicable

Sodium aluminum phosphate (SALP) is regulated by the Food and Drug Administration under CFR 182.1781 as a generally recognized as safe miscellaneous and/or general purpose food additive.

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/HPA 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	1	0	0	
Suggested HMIS Rating	1	0	0	E E = Safety glasses, gloves, dust respirator

Reason for revision: Revised section 1.

Supersedes MSDS dated: 1 November 2005

Drafted in accordance with ECC Dir 2001/58/EC

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