



PRODUCT DATA SHEET

PRODUCT: Trisodium Phosphate, Crystalline (TSPc)
Medium Granular & Fines



GRADE: FCC

CODE: 108 (granular)
118 (fines)

GENERAL DESCRIPTION: White, odorless granules or powder.

FORMULA: $\text{Na}_3\text{PO}_4 \cdot 12(\text{H}_2\text{O}) \cdot \frac{1}{4}\text{NaOH}$

MOLECULAR WEIGHT: 390.12

CAS NO.: 10101-89-0

DATE EFFECTIVE: April 4, 2006

CHARACTERISTICS

SPECIFICATION LIMITS

Assay, % Na_3PO_4 (ignited basis)

90 Minimum

Loss on Ignition, %

45 - 57

Insoluble Substances, %

0.2 Maximum

Arsenic (as As), ppm

3 Maximum

Fluoride, ppm

50 Maximum

Lead, ppm

4 Maximum

Sizing, USSS:

Thru 10 Mesh, %

	<u>Granular</u>	<u>Fines</u>
100 Minimum	100 Minimum	-----
-----	-----	100 Minimum
-----	-----	95 Minimum
10 Maximum	10 Maximum	10 Maximum

Thru 16 Mesh, %

Thru 20 Mesh, %

Thru 100 Mesh, %

NOTE: Specification Limits are subject to change from time to time. Please contact us for current data sheet.

Production Location: Lawrence, KS
 Packaging: 50 lb. multiwall bags; 2000 lb. super sack
 Labeling Requirements: Product label required by law.
 Shipping Classification: Trisodium Phosphate
 Handling Precautions:

DANGER! CAUSES EYE BURNS. CAUSES SKIN IRRITATION. Do not get in eyes, on skin, or clothing. Avoid breathing dust. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. **FIRST AID:** IF IN EYES, immediately flush with plenty of water for at least 15 minutes. Call a physician. IF ON SKIN, immediately flush with plenty of water. Remove contaminated clothing. Wash clothing before reuse.

TRISODIUM PHOSPHATE, CRYSTALLINE (TSPc), FCC GRADE, MEDIUM GRANULAR & FINES

ICL Performance Products LP Trisodium Phosphate, Crystalline complies with the specifications for Sodium Phosphate, Tribasic Dodecahydrate as defined in the Food Chemicals Codex (FCC). The material represented by FCC specifications can theoretically contain less than 12 molecules of water of hydration. While the Trisodium Phosphate, Crystalline (TSPc) product manufactured by ICL Performance Products LP typically contains only 10 molecules of water of hydration (molecular weight 353.97), it still conforms to the FCC 45-57% moisture (LOI) requirements. Trisodium Phosphate Crystalline (TSPc) and Trisodium Phosphate Anhydrous (TSPa) are generally interchangeable in their applications if allowance is made for the differences in contained water. In addition, TSPc contains ¼ mole of NaOH per mole of TSP, giving it a slightly higher solution pH.

Key Properties:

- Strongly alkaline salt
- Protein modifier
- Emulsifying agent
- Shelf-life \cong 24 months
- Buffer capacity

Applications:

- **Process Cheese and Cheese Products:** TSP is used to make a soft process cheese that melts & flows easily at 75-80°C. The TSP sequesters the calcium from the cheese protein causing the protein to dissolve and emulsify the system.
- **Quick Cooking Cereals:** The high alkalinity of TSP is advantageous when quicker cooking rates are desirable in cooked breakfast cereals. Increased pH also makes the product more creamy or yellow in color giving a richer appearance.
- **Potable Water Treatment:** ICL Performance Products LP trisodium phosphate, crystalline conforms to the requirements of ANSI / NSF Standard 60. Used for corrosion & scale control. Maximum Use Level = 41 mg/L.
- Generally Recognized As Safe (GRAS) when added directly to human food under 21 CFR 182.1778, 182.6778, and 182.8778. Food Grade Sodium Phosphate (mono-, di-, tri-) is generally recognized as safe when used in accordance with good manufacturing practice.
- Approved for use as a boiler water additive under 21 CFR 173.310. Steam from boiler water treated with TSP is allowed to contact edible products in official meat, poultry, and food processing establishments under USDA jurisdiction.
- USDA approved as a general cleaning agent, or for use with steam cleaning or recirculating devices in all departments of official meat, poultry and food processing establishments under USDA jurisdiction. Before using this compound, food products and packaging materials must be removed from the room or carefully protected. After using this compound, equipment and utensils must be thoroughly rinsed with potable water.
- USDA approved for use in meat, poultry and food processing plants under USDA jurisdiction as a water conditioning compound for entire potable water systems at a dosage not to exceed 20 ppm calculated as PO₄.
- USDA approved as a hog scalding and tripe denuding agent in official meat processing establishments. Treatment must be followed by thorough rinsing with potable water to remove the added substance.
- USDA has approved TSPc for use in poultry processing plants under USDA jurisdiction as a post-chill antimicrobial treatment of raw poultry carcasses. (Patents are issued in this area.)

FOR MORE COMPLETE INFORMATION ON PROPERTIES AND SAFE HANDLING OF THIS MATERIAL, SEE THE ICL PERFORMANCE PRODUCTS LP MATERIAL SAFETY DATA SHEET (MSDS).

NOTICE: 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 or warranties 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 or the product to which Information refers. Nothing contained herein is to be construed as a recommendation to use any product, process, equipment or formulation in conflict with any patent, and ICL Performance Products LP makes no representation or warranty, express or implied, that the use thereof will not infringe any patent. The data set forth herein are based on samples tested and are not guaranteed for all samples or applications. Such data are intended as guides and do not reflect product specifications for any particular product. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OR 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.

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Corporate Offices:

622 Emerson Road
Suite 500
St. Louis, Missouri 63141
314-983-7500

For order assistance, please call our Customer Service Department Toll Free: 1-800-244-6169