

Trisodium Phosphate Chlorinated

CLEANER SANITIZER

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

To clean glasses, dishes, eggs, knives, trays, food utensils and equipment use the following procedure:

Scrape and then prewash with Trisodium Phosphate Chlorinated solution (1 oz. or 2 level tbs. per quart of water) or other detergent or compatible cleaner. Rinse in potable water.

To sanitize glasses, dishes, eggs, knives, food utensils and equipment use the following procedure:

Use a solution of Trisodium Phosphate Chlorinated solution (2 level tbs. or 1 oz. per gallon of potable water). Immerse all utensils for at least two minutes or contact time specified by governing sanitary code.

NEVER USE ON FOOD CONTACT PROCESSING EQUIPMENT AND UTENSILS, AND ON OTHER FOOD CONTACT SURFACES. FDA REGULATIONS PRESCRIBE ADEQUATE TESTING BEFORE CONTACT WITH FOOD.

Solutions should be freshly prepared and kept in properly labeled containers to protect against contamination. Paired solutions should be used.

FOR INDUSTRIAL REFORMULATING: This product is not intended for use as a sanitizer or disinfectant in food service establishments. For information on the use of this product in industrial reformulating, contact the manufacturer.

REGULATIONS: This product is registered with the Environmental Protection Agency under EPA Reg. No. 17-1776.

ACTIVE INGREDIENT

CHLORINATED TRISODIUM PHOSPHATE..... 95.00%
 INERT INGREDIENT 5.00%

AVAILABLE CHLORINE (expressed as Sodium Hypochlorite in solution)..... 1.00%

FOR INDUSTRIAL USE AS A SANITIZING AGENT IN FOOD SERVICE ESTABLISHMENTS AND FOR REFORMULATING OR REPACKAGING AS A SANITIZER

DANGER!

MAY CAUSE BURNS TO EYES
 SEE FIRST AID STATEMENT AND ADDITIONAL PRECAUTIONS ON SIDE PANELS

EPA Reg. No. 17-1776

EPA EST. 1-5-1-1

NET 300 LBS. (136 kg)

WALLEN CHEMICALS

INDUSTRIAL DIVISION

1000 W. 10th Street, P.O. Box 1000, Omaha, Nebraska 68101

STORAGE AND DISPOSAL

Do not store in areas that do not contain water, food, or feed by the user. Do not store in areas where children are prohibited. Do not reuse empty containers. Do not store in areas where children are prohibited. Do not store in areas where children are prohibited. Do not store in areas where children are prohibited.

SPILL OR LEAK: If spilled, remove immediately. Do not use a vacuum cleaner. Do not use a broom. Do not use a shovel. Do not use a pitchfork. Do not use a pitchfork. Do not use a pitchfork.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Causes eye damage and respiratory irritation. Avoid breathing dust. Wash thoroughly with plenty of water after use. If swallowed, do not induce vomiting. Get medical attention immediately.

FIRST AID (See First Aid Statement): If on skin, wash with plenty of water for at least 15 minutes.

If in eyes, flush with plenty of water for at least 15 minutes. Get medical attention immediately.

If inhaled, get medical attention immediately. If swallowed, get medical attention immediately.

ENVIRONMENTAL HAZARDS: This product is highly toxic to aquatic life. Do not discharge into waterways.

REGULATIONS: This product is registered with the Environmental Protection Agency under EPA Reg. No. 17-1776.

WALLEN CHEMICALS
 1000 W. 10th Street, P.O. Box 1000, Omaha, Nebraska 68101

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product in a manner inconsistent
with the label directions.
To clean glasses, dishes, or
utensils and equipment use the

Scrape and then prewash with
chlorinated solution (1 oz. to
quart of water) or other deter-
gent cleaner. Rinse in potable

To sanitize glasses, dishes,
utensils and equipment use the

chlorinated solution (2 level tbs. or 1 oz. of
water). Immerse all utensils
minutes or contact time spec-
ified in the product's
sanitary code.

NOTE: Do not use on food con-
tainers and utensils, and on oth-
er articles FDA regulations pre-
scribe. Check for EPA regulations pre-
scribing before contact with
solution. Should be in tightly
properly labeled containers
containing. United States
EPA.

FOR USE ON FOOD CONTACT
SURFACES AND UTENSILS, AND ON OTH-
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EPA.

ACCEPTED
1253-726
MAR 21 1983
United States Environmental Protection Agency
For use on food contact surfaces and utensils, and on other articles
as specified in the pesticide
registration under
EPA Reg. No.

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TRISODIUM PHOSPHATE CHLORINATED (TSP-Cl)
FOR SANITIZATION

Olin trisodium phosphate, chlorinated (TSP-Cl) is an effective sanitizing, cleaning and deodorizing agent. Treatment with TSP-Cl throughout food and beverage processing and food handling operations can help insure the quality and safety of the final product.

Olin TSP-Cl is a fine crystalline product with a faint odor of chlorine. It is a double salt of the composition $\text{Na}_3\text{PO}_4 \cdot \frac{1}{2}\text{NaOCl} \cdot 11\text{H}_2\text{O}$, containing a minimum of 3.09% available chlorine.

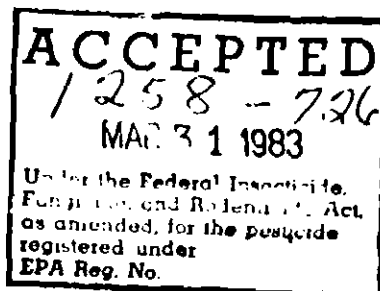
TSP-Cl is convenient to use and handle. It requires no complex, expensive metering equipment or large storage tanks.

All commercial sanitizers sold for biocidal applications must be registered with the U.S. Environmental Protection Agency (EPA). Olin has obtained registrations for all applications discussed in this Data Sheet. If your specific needs are not covered, contact your nearest Olin sales office. Additional data are on file or we may be able to help you obtain the necessary government registrations.

This product is authorized by USDA for use in federally inspected meat, poultry, rabbit and egg plants to sanitize surfaces and to clean, destain and sanitize egg shells.

Directions for Cleaning and Deodorizing

For maximum effectiveness, the surface to be sanitized should first be cleaned, to permit direct contact between the TSP-Cl solution and bacteria or other organisms.



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To clean and deodorize, use one ounce (two level tablespoons) of TSP-Cl per quart of water (800 ppm available chlorine). This solution may be applied to porcelain, tile, formica and enameled surfaces such as sinks and refrigerators, and other non-porous surfaces. Rinse thoroughly with potable water.

Meat and Poultry Processing Plants

TSP-Cl solutions containing 200 ppm available chlorine will sanitize all equipment and utensils that come into contact with meat, thus helping to prevent contamination. First, clean equipment and utensils thoroughly, removing all fat and grease. (See Directions for Cleaning and Deodorizing, above.) Spray or rinse with TSP-Cl solution (200ppm av. cl.). Allow adequate draining before contact with food.

Food Processing and Canning Plants

TSP-Cl is a sanitizer recommended for all types of non-porous equipment used in the handling of food products. Spray or rinse a solution containing one ounce or two tablespoons of TSP-Cl to one gallon of water to sanitize previously cleaned processing and packaging equipment. Allow adequate draining before contact with food.

Institutional, Food Services and Restaurants

To clean & deodorize glasses, dishes, mugs, knives, trays, food utensils and equipment use the following procedure: Scrape and then prewash with TSP-Cl solution (one ounce or two level tablespoons per quart of water) or other detergent or compatible cleaner. Rinse in potable water. Sanitize in TSP-Cl solution (two level tablespoons or one ounce per gallon of water). Immerse all utensils for at least two minutes, or time specified by governing

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sanitary code. When TSP-Cl solutions are used on food-contact processing equipment and utensils, or on other food contact articles, FDA regulations prescribe adequate draining before contact with food.

Milk Handling and Processing Equipment: For use on dairy farms and in plants processing milk, cream, ice cream, cheese, etc.

Rinse milking machines, utensils and all equipment with cold water to remove excess milk. Clean with a solution containing one ounce or two tablespoons of TSP-Cl per quart of water. Rinse with potable water.

To sanitize, spray or rinse all precleaned surfaces with a solution of one ounce or two tablespoons of TSP-Cl per gallon of water. Allow adequate draining before contact with dairy products.

Bottling Plants and Breweries

TSP-Cl is a sanitizer recommended for all types of non-porous equipment and utensils used in the production and bottling of beverages. Use one ounce or two tablespoons of TSP-Cl to one gallon of water, to sanitize previously cleaned processing and packaging equipment. Allow adequate draining before contact with beverages. Where applicable, rinse with potable water before reuse, as a chlorine residual may affect the color and flavor of some products.

Fish Processing Plants

Scrub all surfaces thoroughly with a cleaning solution of one tablespoon of TSP-Cl per quart of water at 125°F-130°F. TSP-Cl solutions containing 300-500 ppm available chlorine will sanitize all hard, non-porous surfaces (tile, formica, stainless steel).

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Use the rinse or spray method, and allow at least two minutes contact time. Rinse all surfaces with potable water before reuse.

Egg Processing

To clean egg shells, spray the eggs with a solution containing eight tablespoons or four ounces of TSP-Cl per gallon of water (800 ppm available chlorine) at 90°F to 120°F. Spray-rinse the cleaned eggs with warm potable water.

To destain egg shells (by immersion), immerse the eggs in a solution containing eight tablespoons or four ounces of TSP-Cl per gallon of water (800 ppm available chlorine) at 90°F to 120°F. Rinse with potable water.

For shell egg sanitizing, spray the eggs with warm potable water containing one ounce TSP-Cl per gallon (200 ppm available chlorine). Eggs should be reasonably dry before egg casing or breaking.

All egg cups, breaking knives, trays and other equipment that come into contact with "off" eggs should be thoroughly cleaned and sanitized. First, clean all equipment, following Cleaning and Deodorizing Directions (above). Before placing back in use, spray with a TSP-Cl solution containing 200 ppm available chlorine. Allow surfaces to drain thoroughly before contact with food products.

To sanitize egg freezers and dryers (tanks, pipelines and pumps), use the spray (or fog) method of treatment. This procedure is generally used to sanitize large, non-porous surfaces that have already been freed of physical soil.

Prepare a TSP-Cl solution containing 200 ppm available chlorine. Apply spray heavily to all surfaces the eggs will touch. All treated surfaces, corners and turns should be thoroughly sprayed. Allow equipment to drain adequately before contact with eggs.

Methods of Application of TSP-Cl Solutions

All sanitizing solutions should be freshly prepared. Solutions should be tested during use to make sure the concentration does not drop below the recommended level. Keep in properly labeled containers to protect against contamination. Unused solutions should be discarded.

Clean-In-Place Method of Sanitizing Equipment. This method is commonly used to sanitize closed systems, such as fluid milk cooling and handling equipment. It is also appropriate for sanitizing weigh tanks, coolers, short-time pasteurizers, pumps, homogenizers, fillers, sanitary piping and fittings, and bottle and can fillers.

First, clean all equipment thoroughly, immediately after use. Then place back in operating position.

Prepare a TSP-Cl solution containing at least 200 ppm available chlorine, in a volume sufficient to fill the equipment. Allow a 10% excess for waste.

Pump the TSP-Cl solution through the system until it is filled and all air excluded. Close final drain valves and hold under pressure for two minutes to insure proper contact with all surfaces. Then drain the solution and flush with potable water.

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Spray Method of Sanitizing Equipment. The spray (or fog) method is generally used to sanitize large, non-porous surfaces that have already been freed of physical soil. It is appropriate for batch pasteurizers, holding tanks, weigh tanks, tank trucks and cars, vats, tile walls, ceilings and floors.

Prepare a TSP-Cl solution containing 200 ppm available chlorine. If possible, use pressure spraying or fogging equipment designed to resist chlorine-containing solutions (e.g. rubber-coated, plastic or stainless steel). When using any other kind of spraying equipment, be sure to empty and rinse thoroughly with fresh water immediately after treatment.

Apply spray or fog heavily to all surfaces the product will touch. All treated surfaces, corners and turns should be thoroughly sprayed. Allow excess solution to drain off thoroughly, then place in service.

General Rinse Method. TSP-Cl solutions containing at least 200 ppm available chlorine will sanitize plant floors, walls and ceilings, and also control odors in refrigerated areas and drain platforms.

Flush or swab surfaces generously with the TSP-Cl solution. Allow to drain.

Table 1

Required Amounts of TSP-Cl*
(Pounds-Ounces)

Available Chlorine (ppm)	Water (Gallons)					
	1	10	50	100	500	1,000
100	0-½	0-5	1-9	3-2	15-10	31-4
200	0-1	0-10	3-2	6-4	31-4	62-8
300	0-2	0-15	4-11	9-6	46-14	93-12
500	0-3	1-9	7-8	15-10	78-2	156-4
800	0-4	2-8	12-8	25-0	125-0	250-0

*For measuring small quantities:

½ ounce=1 tablespoon
1 ounce=2 tablespoons

Further Formulation or Repacking

Any further formulation or thi product may require additional supportive laboratory and/or efficacy and safety data. Formulators and repackers are cautioned to check with representatives of the U.S. Environmental Protection Agency before reformulating or re-packing.

Additional Information

Copies of the product and toxicological data bulletins, as well as answers to technical questions, can be obtained by calling the Marketing Manager, Industrial Phosphates (203) 356-2174 or by writing Olin Corp., 120 Long Ridge Rd., Stamford, Connecticut 06904.

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Table 6
Packaging

Container	Net Weight (pounds)
Paper Bags (polyethylene-lined)	100
Drums (Fiberpak)	125, 300
Drums (Leverpak)	50
Bulk	"
Tote Pans	"

*Contact your Olin Sales Office for details on bulk and tote bin shipments.

Storage and Handling

Since some water of crystallization may be released on exposure to atmosphere or heat, with a slight loss of available chlorine, TSP-Cl should be stored in covered containers in a cool, dry place.

Toxicological Properties

TSP-Cl is considered orally toxic. It has an oral LD₅₀ of 4.8 g/kg (rats) and an inhalation LC₅₀ greater than 2.16 mg/l inspired air for 1 hour (rats). It is a skin irritant and corrosive to eyes.

Personnel Protection

Use with adequate ventilation. Do not get in eyes, on skin or on clothing. Do not take internally. Wear goggles, coveralls and impervious gloves and boots.

Spill and Leak Procedures

Wear a NIOSH/MSHA respirator approved for dust and chlorine. Follow OSHA regulations for respirator use. (See Title 29, Chapter 1910.134 Code of Federal Regulations.) Wear goggles, coveralls, impervious gloves and boots. Shovel up and place in an approved DOT container and seal. Flush residue with plenty of water. Wash all contaminated clothing before reuse.

Disposal

Dispose of unused product in a manner approved for this material. Consult the appropriate Federal, state and local regulatory agencies to ascertain proper disposal procedures.

How to Order

To place orders for delivery in the U.S. or Canada and to get fast answers on order status or product availabilities, call our toll-free number: 1-800-243-9171. (From Connecticut, call 1-324-7024, collect. From Canada, call 203-324-7024, collect.)

After your first order, you'll be assigned your own personal Olin Customer Service Representative. When you call back, simply ask for your Customer Service Representative by name. If you call evenings (after 6:00 p.m. Eastern time) or on weekends or holidays, your message will be recorded and your Representative will contact you at the beginning of the next business day.

For written inquiries about orders, and to place confirmations, we've set up a special box number for you. Just address your envelope to: Olin Chemicals, P.O. Box 10007, Stamford, CT 06904.

DANGER!
 MAY CAUSE BURNS TO EYES
 SEE FIRST AID STATEMENT AND ADDITIONAL
 PRECAUTIONS ON PRINCIPAL LABEL

EPA Reg. No. 1258-726

The technical information given herein is intended to aid you in evaluating this product in commercial applications. Users are cautioned that federal and state laws and regulations regulate the manufacture, marketing, labeling, registration and usage of drugs, pesticides, economic poisons, dangerous caustic or corrosive substances, hazardous and toxic substances, and food additives.

No warranty, expressed or implied, is made except that the product conforms to Olin's specifications. The technical data furnished are believed to be accurate and complete. Buyer assumes responsibility for proper use, storage and handling of this product. Olin shall not be responsible for special or consequential damages. Nothing contained herein shall be construed as a permission or recommendation for the use of the product in the infringement of any existing patent.

Trisodium Phosphate Chlorinated

Not Reviewed. Registrant claims to be in accordance with
 Federal Insecticide, Fungicide, and Rodenticide Act for Phase 2
 Registration, Part 2.12, Active to Inert Change in Status.

DIRECTIONS FOR USE It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

To **CLEAN AND DEODORIZE** glasses, dishes, mugs, knives, trays, food utensils and equipment use the following procedure:

Scrape and then prewash with Trisodium Phosphate Chlorinated solution (1 oz. or 2 level tbs. per quart of water) or other detergent or compatible cleaner. Rinse in potable water.

To **SANITIZE** glasses, dishes, mugs, knives, trays, food utensils and equipment use the following procedure:

Sanitize in Trisodium Phosphate Chlorinated solution (2 level tbs. or 1 oz. per gallon of potable water.) Immerse all utensils for at least two minutes or contact time specified by governing sanitary code.

OTHER USES: Ask your supplier or write Olin Corporation for literature on other accepted uses.

NOTE: WHEN USED ON FOOD CONTACT PROCESSING EQUIPMENT AND UTENSILS, AND ON OTHER FOOD CONTACT ARTICLES FDA REGULATIONS PRESCRIBE ADEQUATE DRAINING BEFORE CONTACT WITH FOOD.

Solutions should be freshly prepared. Solutions should be tested during use to make sure the concentration does not drop below the recommended level. Keep in properly labeled containers to protect against contamination. Unused solutions should be discarded.

SPECIAL USE INSTRUCTIONS: Hazardous carbon monoxide can form upon contact with food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures. (See ANSI Z 117.1-1977).

NOTICE TO FORMULATORS OR REPACKERS: Any further formulation of this product may require additional supportive laboratory and/or efficacy and safety data. Formulators and repackers are cautioned to check with representatives of the ENVIRONMENTAL PROTECTION AGENCY before reformulating or repackaging.

ACTIVE INGREDIENT

Sodium Hypochlorite 3.25%
 INERT INGREDIENT..... 96.75%
 100.00%

AVAILABLE CHLORINE (Expressed as Sodium Hypochlorite in Solution)..... 3.09%

FOR INDUSTRIAL USE AS A SANITIZING AGENT IN FOOD SERVICE ESTABLISHMENTS AND FOR REFORMULATING OR REPACKAGING AS A SANITIZER

DANGER!

**MAY CAUSE BURNS TO EYES
 SEE FIRST AID STATEMENT AND
 ADDITIONAL
 PRECAUTIONS ON SIDE PANELS**

EPA Reg. No. 1258-726

EPA EST. 1258-IL-1

NET 125 LBS. (56.7 kg)

Olin CHEMICALS

OLIN CORPORATION
 120 LONG RIDGE ROAD, STAMFORD, CONNECTICUT 06904

STORAGE AND DISPOSAL: Store in a cool, dry place. Do not contaminate water, food, or feed by storage or disposal.

Pesticide wastes are acutely hazardous. If you cannot dispose of this product in accordance with the instructions on this label, contact your State Pesticide Control Agency or the Hazardous Waste Response Team for guidance.

Completely empty drum/liner (if provided) and bottom to loosen clinging material. Wash thoroughly with application equipment. Then dispose of in accordance with applicable incineration if allowed by State or Federal regulations.

SPILL OR LEAK: Wear NIOSH/MSHA approved respirator. Follow OSHA regulations (29 CFR 1910.134). Wear goggles, coveralls, gloves, and boots. Shovel or sweep up and place in a container for disposal.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER: Corrosive and alkaline. Causes severe skin irritation. Do not get in eyes, on skin, or on clothing. Wear coveralls and rubber gloves and boots. Avoid breathing dust. Do not swallow. Avoid breathing dust. U.S. Dept. of Health, Education and Welfare, OSHA 209-104-01-0000

FIRST AID (Practical Treatment)
If on Skin: Flush skin with cold water for at least 15 minutes. Call a physician.
If in Eyes: Flush with cold water for at least 15 minutes. Call a physician.

If Swallowed: Give large amounts of water. Call a physician.
If inhaled: Remove to fresh air. Call a physician.

ENVIRONMENTAL HAZARDS: Do not discharge into lakes, streams, ponds, rivers or streams, or into ground water. Do not discharge into surface water in accordance with a NPDES Permit. For more information, contact your local office of EPA.