

U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Antimicrobials Division (7510P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

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Date of Issuance:

3/29/21

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X Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance:
Unconditional

EPA Reg. Number:

Name of Pesticide Product:

VERTEX CSS-7.5

Name and Address of Registrant (include ZIP Code):

VERTEX Chemical Corporation 2381 Rosegate Roseville, MN 55113

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Antimicrobials Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

- 1. Submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
- 2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 9616-16."

Signature of Approving Official:	Date: 3/29/21
Demson Fuller, Product Manager 32 Regulatory Management Branch I Antimicrobials Division (7510P)	

3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. See FIFRA section 2(p)(2). If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process, FIFRA section 12(a)(1)(B). Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Assurance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

• Basic CSF dated 05/01/2020

If you have any questions, please contact Wanda Henson by phone at (703) 308-6345 or via email at henson.wanda@epa.gov

Sincerely,

Demson Fuller, Product Manager 32 Regulatory Management Branch I Antimicrobials Division (7510P) Office of Pesticide Programs

Enclosure

VERTEX CSS-7.5

{Approved Alternate Brand Names: VERTEX Germicidal Bleach2 VERTEX Disinfecting Bleach **VERTEX Cleaning Bleach** Moxie Concentrated Germicidal Bleach

Moxie Concentrated Disinfecting Bleach Best Choice Disinfecting Bleach Schnucks Disinfecting Bleach Optim Disinfecting Bleach

ACCEPTED

03/29/2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 9616-16

Active Ingredient:

Sodium Hypochlorite......7.5% Other Ingredients......92.5% TOTAL......100.0%

Available Chlorine 7.2%

KEEP OUT OF REACH OF CHILDREN DANGER

FIRST AID STATEMENT

If in eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for further treatment advice.

If on skin or clothing:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for further treatment advice

If swallowed:

- Call a poison control center or doctor immediately for further treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

If Inhaled:

- Move person to fresh air
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-tomouth if possible
- Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison center, doctor, or going for treatment. (We will use one of these two numbers) Contact 1-800-222-1222 or 1-800-535-5035 for emergency medical treatment in formation.

NOTE TO PHYSICIAN, Probable mucosal damage may contraindicate the use of gastric lavage.

See Back Panel for Additional Precautionary [Statements] [or Labeling]

Manufactured by: (or Marketed through or Marketed by) VERTEX CHEMICAL CORPORATION 2381 Rosegate Roseville, MN 55113 (optional statement) Visit us at (web site address)

EPA Reg. No. 9616-xx

EPA Est. No.

(optional statement)

FOR CHEMICAL EMERGENCY DURING TRANSPORTATION ONLY Call CHEMTREC 1-800-424-9300, 24 hours a day, 7 days a week

NET Contents: _____ (optional statement) Made in the U.S.A.

[Additional optional claims; note these can be listed in any order and location, parenthetical terms need not be included:][The phrase "this product" may be used interchangeably with the product name "VERTEX CSS-7.5" throughout the label]

Kills 99.9% of household germs when used according to disinfection instructions.

Kills 99.9% germs when used according to disinfection instructions.

VERTEX CSS-7.5 kills germs

Kills the viruses* that cause cold and flu *Avian flu virus, Influenza A virus, Rhinovirus type 37

This product, when used as directed on hard, non-porous surfaces, is effective against the following:

FUNGICIDAL

Trichophyton interdigitale (Athlete's foot fungus)

BACTERICIDAL

- Escherichia coli 0157:H7 (E. coli)
- Pseudomonas aeruginosa (pseudomonas)
- Salmonella enterica (Salmonella)
- Staphylococcus aureus (staph)
- Streptococcus pyogenes (strep)

*VIRUCIDAL

- Avian flu virus
- Influenza A virus
- Rhinovirus type 37 (viruses that cause colds and flu)

[Or, optional: can be listed in the following format:]

VERTEX CSS-7.5 kills germs:

Kills household germs including Staphylococcus aureus (staph), Streptococcus pyogenes (strep), Salmonella enterica (salmonella), Pseudomonas aeruginosa (pseudomonas),

*Influenza A virus, *Rhinovirus type 37 (viruses that may cause colds), Trichophyton interdigitale (Athlete's foot fungus), Escherichia coli 0157:H7 (E. coli).

- Respiratory illnesses attributable to Pandemic 2009 H1N1 are caused by influenza A virus.
- This product (Product Name) is a broad-spectrum hard surface disinfectant that has been shown to be effective against (influenza A virus tested and listed on the label)
- This product has demonstrated effectiveness against influenza A virus.
- This product has demonstrated effectiveness against (influenza A virus tested and listed on the label) including Pandemic 2009 H1N1 (formerly called swine flu).

- Kills Pandemic 2009 H1N1 influenza A (formerly called swine flu).
- Kills Pandemic 2009 H1N1 influenza A virus.

[Statements in brackets on the following pages are instructional and not part of labeling] [Additional optional claims:}

Commercial/Institutional Use

DISINFECTS • SANITIZES•

DEODORIZES

*VIRUCIDE

BACTERICIDE • FUNGICIDE

HIGHER CONCENTRATION FORMULA

DISINFECTS AND DEODORIZES

WHITENS

BRIGHTENS LAUNDRY

KILLS GERMS

FORMULATED FOR FOODSERVICE APPLICATIONS

REMOVES STAINS

BACTERICIDAL

MILDEWCIDAL

FUNGICIDAL

CLEANS

100% SATISFACTION GUARANTEE

33% MORE COMPACT DOSE

25% MORE CONCENTRATED

CONCENTRATED

CONCENTRATED FORMULA

CONTAIN NO PHOSPHOROUS

ELIMINATES ODORS

SAFE ON BLEACHABLE FABRICS

PROTECTS FABRICS

KEEPS CLOTHS WHITER LONGER

WHITES STAY BRIGHTER LONGER

JUST AS SAFE ON BLEACHABLE FABRICS AS BEFORE

FOR A CLEANER, FRESHER HOUSEHOLD & [AND] LAUNDRY

MADE IN THE U.S.A.

This product can be used on hard non-porous surfaces in commercial, institutional, hospital and household premises (including kitchens, bathrooms, nurseries, sick rooms, laundry rooms), eating establishments, pet kennels, veterinary premises, farms, dairies, and food processing plants.

Kitchen: Clean and disinfect kitchen sinks and countertops.

Bathroom: Deodorize and disinfect bathtubs, showers, floors, vinyl, and tile. Toilet

Bowls: Disinfect your external toilet surfaces.

Disinfects, sanitizes, and deodorizes by killing germs and their odors.

Exercise care in handling. Check to make sure bottle is always tightly capped. Product should be carried and stored in an upright position to avoid spillage.

Do not use this product full strength for cleaning surfaces. Always dilute strictly in accordance

with label directions. Wear gloves when cleaning for prolonged periods.

Contains no phosphorous.

Keep [bottle] upright [and tightly capped]

Do not drop.

[Double Quality Guarantee – Quality, performance and satisfaction is always double guaranteed at Vertex Chemical Corporation. If for any reason you are not 100% satisfied with this product, we will gladly replace the product, AND refund your money. When corresponding, please include code information from (the product).]

[The following headings maybe placed above or in front of appropriate directions (e.g., Household Use in front of directions for dishes or floors)]

FARM - DAIRY USE RESTAURANT USE FOODSERVICE APPLICATIONS HOUSEHOLD USE FOOD PROCESSING PLANT USE

[Additional optional graphics:]

HE pictogram





The following icons:































[64 oz. = 96 oz.] [other sizes may be substituted]

Same # of loads as before.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER: Corrosive. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin or on clothing. Wear goggles or safety glasses and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated.

[In accordance with PR notice 95-1, the Environmental Hazards statement only required for containers 5 gallons and larger]

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the U.S. Environmental Protection Agency.

[If swimming pool/spa directions are used, the following statement is required:] In the Directions for Use Section, under Swimming Pools/Spas, see specific "Discharge Directions for Commercial and Residential Pool, Spa and Hot Tub uses."

Physical and Chemical Hazards

Strong oxidizer. Flush drains before and after use. Do not use or mix with other household chemicals, such as toilet bowl cleaners, rust removers, acid or ammonia containing products. To do so will release hazardous gases. Prolonged contact with metal may cause pitting or discoloration

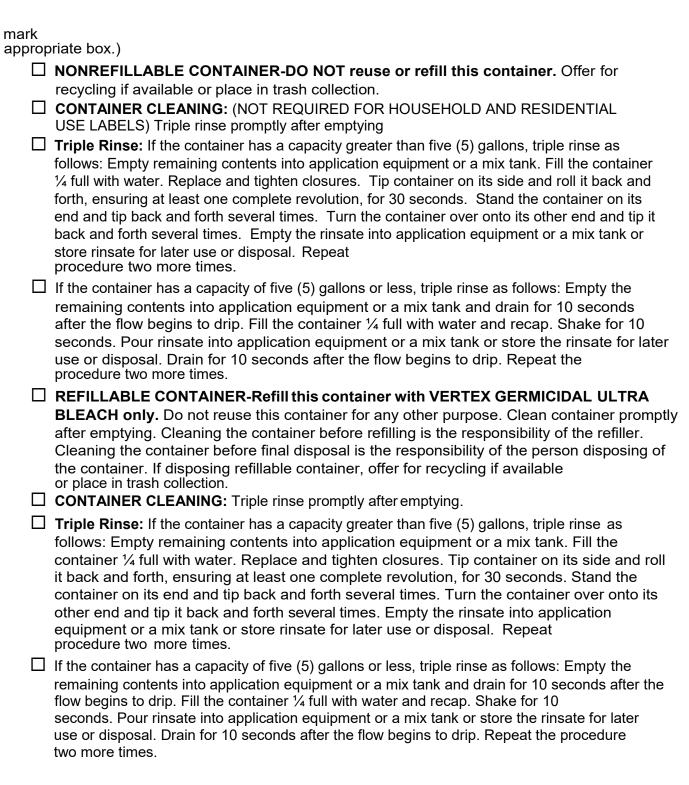
STORAGE AND DISPOSAL

[PRODUCT] [VERTEX CSS-7.5] STORAGE: Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer, in accordance with state & local regulations.

[PRODUCT] [VERTEX CSS-7.5] DISPOSAL: Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING [or DISPOSAL]: (HOUSEHOLD & RESIDENTIAL USE LABELS) (marketing label will include only applicable container handling instructions) **NONREFILLABLE CONTAINER-DO NOT reuse or refill this container.** Offer for recycling, if available or place in trash collection.

CONTAINER HANDLING [or DISPOSAL]: (ALL OTHER LABELS) (marketing label will include only applicable container handling instructions) (When check -off box format is used on label, filler will {01621.006 / 111 / 00325749.DOCX 2}



[The Directions for Use on the following pages are similar directions with different formats and quantities in order to provide flexibility to distributors to address their customers' and market needs on labeling for the marketplace.]

DIRECTIONS FOR USE

This product may be applied only by the methods specified on the labeling.

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

This product can be used in Federally Inspected Meat and Poultry Facilities as a sanitizer.

This product is not to be used as a terminal sterilant/high-level disinfectant on any surface or instrument that (1) is introduced directly into human body, either into or in contact with the bloodstream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to preclean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.

LAUNDRY

4 fl oz of this product in 10 gallon of water is equivalent to approximately 200 parts per million (ppm) available chlorine. Use a chlorine test kit to determine exact available chlorine concentration and adjust as necessary to obtain specified ppm.

Use to bleach white and colorfast Acrylics, Cotton, Nylon, Polyester, Rayon (test to be sure). Do not use on Acetate, Leather, Silk, Spandex or Wool, Mohair and non-fast colors. Sort laundry by color and fabric. Separate whites from colors, light colors from dark colors.

BLEACH TEST: Before using, mix one tablespoon of bleach with 1/3 cup of water in a glass, rubber, porcelain, or plastic container and test a small piece of fabric in a place that doesn't show. Test all colors, including trim. Let stand one minute, then blot dry. No color change means the article can be bleached safely.

{Non-pesticidal laundry use:}

LAUNDRY [USE]: Before adding clothes, add bleach to water as indicated in the table below. Add clothes. Wash and rinse with usual cycles. If clothes are in machine the addition of bleach can cause damage.

REMOVE STAINS [or STAIN REMOVAL]: Mix 1/4 cup of bleach with a gallon of water. Soak stained area for 5 minutes to remove grass, ink, coffee, tea, scorch, fruit, etc. Rinse thoroughly.

[OR: the following format maybe used:]

LAUNDRY USE:

- 1. Before adding clothes, add bleach to water as indicated in the table below Add clothes
- 2. Wash and rinse with usual cycles.

Do not use on Acetate, Leather, Silk, Spandex or Wool, Mohair and non-fast colors.

REMOVE STAINS [or STAIN REMOVAL]:

- 1. Mix 1/4 cup of bleach with a gallon of water.
- 2. Soak stained area for 5 minutes to remove grass, ink, coffee, tea, scorch, fruit, etc.
- 3. Rinse thoroughly.

[Whitening -and/or- Brightening -and/or- Stain Removal:]					
Dose -or- Load	Standard Machine	H[igh] Efficiency] [Machine]			
Normal -or- Regular	1/3 cup [2.7 fl oz]	Max[imum] line -or- level [in dispenser]			
Visible -or- visibly Soiled - and/or- Stained	2/3 cup [5.3 fl oz]	Max[imum] line -or- level [in dispenser]			

Sanitization

To sanitize laundry: Add bleach to the washer following the laundry use directions. Ensure contact with bleach [solution] for 10 min[utes].

Sanitizing		
Dose -or- Load	Standard Machine	H[igh] Efficiency] [Machine]
Normal -or- Regular	1/2 cup [4 fl oz]	1/4 cup [2 fl oz]

[To Disinfect and Deodorize] [Disinfecting and Deodorizing] Bathrooms: Disinfect and deodorize bathtubs, showers, sinks, floors, vinyl, tile.

- 1. Spread a solution of 5/8 cup of VERTEX CSS-7.5 [or this product] per gallon of deionized water [or Spread a solution of 1 1/4 cups of VERTEX CSS-7.5 [or this product] per 2 gallons of deionized water.]
- 2. Let stand 5 minutes, then drain and air dry.

[DISINFECTING] [TO DISINFECT] HARD, NON-POROUS KITCHEN NON-FOOD CONTACT SURFACES, SINKS: Use 1/4 cup bleach mixed with a quart of deionized water to soak cleaned sinks for 5 minutes. Rinse with a solution of approximately ¾ Tbsp. of bleach per gallon of deionized water to prepare a 200 ppm solution. Do not use on silverware. Bleach solution can be used on porcelain, enamel, etc. surfaces after cleaning. Let air dry.

DISINFECTING [AND DEODORIZING] [TO DISINFECT AND DEODORIZE] HARD, NON-POROUS BATHROOM[S] SURFACE[S]: Prewash toilet and flush. Pour 3/8 cup bleach into toilet bowl, scrub with a brush, making sure to get under rim, let stand 10 minutes, flush. Do not use with bowl cleaners or any other household chemicals.

DEODORIZING GARBAGE CANS: Wash and rinse, Use 5/8 cup bleach for each gallon of water in can. Empty and let drain.

3/4 Tbsp. (0.36 fl oz) of VERTEX CSS-7.5 in 1 gallon of water is equivalent to approximately 200 parts per million (ppm) available chlorine. Use a chlorine test kit to determine exact available chlorine concentration.

FOR SANITIZING	Amount Bleach	Amount Water	Instructions
Work Surfaces	3/4 Tbsp. 1 Gallon	1 Gallon	Pre-wash with detergent, rinse, cover surface with bleach solution for at least 2 minutes, drain, let air dry.
Dishes, Glassware, Utensils	3/4 Tbsp. 1 Gallon	1 Gallon	After washing, soak for at least two minutes in bleach solution. Drain and let air dry.
Bathtubs, Showers	3/4 Tbsp. 1 Gallon	1 Gallon	Wash, rinse, apply bleach solution for at least two minutes, drain, let air dry.
Refrigerators, Freezers	3/4 Tbsp. 1 Gallon	1 Gallon	Allow surfaces to come to room temperature. Wash, rinse, apply bleach solution for at least two minutes, drain, let air dry.
FOR DISINFECTING			
Floors & Walls	5/8 Cup	1 Gallon	Pre-wash surfaces and rinse. Spray, rinse or wipe surface with bleach solution, let stand for 5 minutes. Drain and air dry.
Mops, Brushes, Brooms & Rugs	5/8 Cup	1 Gallon	Wash with detergent, apply bleach solution, soak at least 10 minutes. Rinse well.
FOR DEODORIZING			
Garbage Cans	5/8 Cup	1 Gallon	After washing and rinsing, brush inside with solution. Empty and let drain.
Drains	1 Cup		Pour into drain. Flush with hot water.
FOR BLEACHING/WHITENING			
Wooden Surfaces	3/8 Cup	1 Gallon	Apply for 5 minutes, rinse.
FOR MOLD, MILDEW, & STAIN REMOVAL	EMOVAL		
All Surfaces	3/8 Cup	1 Gallon	Add bleach to detergent solution, apply, rinse.

■ Laundarina. To bloach and consisting white and colorfoot action lines	Conitinia Nonnovine Ecod Control Cinfessor: Droppe Conitining
■ Laurice III.9. To breach and samitize white and coloriast cotton, illien Invlon, Dacron, Orlon, Polvester, Dynel and rayon in washing machine: 5/8	solution by thoroughly mixing 2 Tbsp. (1 oz.) of this product with 2 3/4
cup of this product per load for conventional washing machine: 3/8 cup for	gallons of water to provide approximately 200 ppm available chlorine by
front load automatic. Add to pre-soak, wash water or first rinse. If clothes,	weight. Clean all surfaces in the normal manner. Prior to use, rinse all
are in machine, dilute product in 1 quart water before adding.	surfaces thoroughly with the sanitizing solution, maintaining contact with
■ To Whiten Nylon and Other Synthetics that have turned yellow or grey:	the sanitizer for at least 2 minutes. Do not rinse equipment with water after
1 tablespoon of this product per gallon water. Soak clean fabric in solution	treatment and do not soak equipment overnight.
for 15 to 20 minutes. Rinse well. Repeat if necessary.	■ To Sanitize Milking Equipment: Prepare sanitizing solution as above
■ To Remove Stains: Berry, wine, coffee, tea, ink, grass, dye, medicine	immediately prior to use. All surfaces to be sanitized should be properly
stains, scorch and mildew. Make solutions of 2 tablespoons of this product	cleaned before application of chlorine solution. Milking utensils should be
to each quart water. Immerse fabric for 5 to 10 minutes. Rinse well in	submerged in the solution for at least 2 minutes and allowed to drain. Do
clear water. Repeat if necessary.	not rinse equipment with water after treatment.
■ Today's Permanent Press Fabrics are Bleachable and need this	If solution contains less than 50 ppm available chlorine, as determined by
product to Get out stains and help prevent dirt build up. Wash with regular	a suitable test kit, either discard the solution or add sufficient product to
laundry as directed: Top-load automatics – 5/8 cup per toad. Wringer-type	reestablish a 200 ppm residual. Sanitizers used in automated systems
washers - 5/8 cup per load. Front-load automatics - 3/8 cup per load.	may be used for general cleaning but may not be reused for sanitizing
Use this product with any Good laundry soap or detergent. If your washer	purposes.
has an automatic bleach dispenser, follow washer directions. If not, add	■ Sanitizing Porous Food Contact Surfaces: Prepare a solution of
this product to wash water before laundry is put in. If laundry is put in	approximately 600 ppm by thoroughly mixing 6 Tbsp. (3 ozs.) of this
before wash water then dilute this product in quart of water and add after	product with 2 3/4 gallons of water. Clean surfaces in the normal manner.
machine has started agitating and fabrics are thoroughly wet.	Rinse all surfaces thoroughly with the 600 ppm solution, maintaining
■ [Disinfecting and Deodorizing] [To Disinfect and Deodorize] Bathrooms:	contact with the sanitizer for at least 2 minutes. Prepare a 200 ppm
To disinfect and deodorize washable surfaces such as tubs, showers,	sanitizing solution by thoroughly mixing 2 Tbsp. (1 oz.) of this product with
countertops, sinks, ceramic tile and vinyl flooring, spread a solution of 1 1/4	2 3/4 gallons of water. Prior to using equipment, rinse all surfaces with 200
cups of this product per 2 gallons of deionized water on clean surface. Let stand 5	ppm available chlorine solution. Do not rinse with water and do not soak
minutes then drain.	equipment overnight.
	PROPORTIONS FOR DILUTION OF THIS PRODUCT
	200 ppm: 1 oz. (2 Tbsp) in 2 3/4 gallons of water
	600 ppm: 3 oz. (6 Tbsp) in 2 3/4 gallons of water
	(Use a chlorine test kit to determine exact available chlorine concentration
	and adjust dosage as necessary.)
	RESTAIIBANTS TAVERNS SODA FOLINTAINS DAIRIES ETC
■ Sickroom Equipment: Wash all surfaces thoroughly. Rinse, then	DIRECTIONS FOR SANITIZING EATING AND DRINKING UTENSILS:
spread a solution of 1 1/4 cups of this product per 2 gallons of water over all	Prepare sanitizing solution immediately prior to use.
	1. Scrape and pre-wash utensils and glass whenever possible.
■ Garbage cans: Wash thoroughly with warm soapy solution. Rinse, then	2. Wash with good detergent or compatible cleaner.
spread a solution of 11/4 cups of this product per 2 gallons of water over all	3. Rinse with clean water.
surfaces. Let stand 5 minutes, then drain.	4. Sanitize in solution of 1 oz. to 2 3/4 gallons of water (200 ppm).
	5. Immerse utensils at least 2 minutes or for contact time specified by
Avoid prolonged contact with metal since corrosion or discoloration may	governing sanitary code.
occur. Do not use this product in chipped enamel.	6. Do not reuse sanitizing solution.

SWIMMING POOL WATER DISINFECTION

For a new pool or spring start-up, superchlorinate with 90 to 180 oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Adjust and maintain pool water pH to between 7.2 to 7.6. Adjust and maintain the alkalinity of the pool to between 50 to 100 ppm.

To maintain the pool, add manually or by a feeder device 17.9 oz. of this product for each 10,000 gallons of water to yield an available chlorine residual between 0.6 to 1.0 ppm by weight. Stabilized pools should maintain a residual of 1.0 to 1.5 ppm available chlorine. Test the pH, available chlorine residual and alkalinity of the water frequently with appropriate test kits. Frequency of water treatment will depend upon temperature and number of swimmers.

Every 7 days, or as necessary, superchlorinate the pool with 90 to 180 oz. of product for each 10,000 gallons of water to yield 5 to 10 ppm available chlorine by weight. Check the level of available chlorine with a test kit. Do not reenter pool until the chlorine residual is 4.0 ppm. Re- entry into treated pools is prohibited above levels of 4 ppm due to risk of bodily harm.

At the end of the swimming pool season or when water is to be drained from the pool, chlorine must be allowed to dissipate from treated pool water before discharge. Do not chlorinate the pool within 24 hours prior to discharge.

WINTERIZING POOLS - While water is still clear & clean, apply 5.4 oz. of product per 1000 gallons, while filter is running, to obtain a 3 ppm available chlorine residual, as determined by a suitable test kit. Cover pool, prepare heater, filter and heater components for winter by following manufacturers' instructions.

SPAS, HOT-TUBS, IMMERSION TANKS, ETC.

SPAS/HOT-TUBS - Apply 9 oz. of product per 1000 gallons of water to obtain a free available chlorine concentration of 5 ppm, as determined by a suitable chlorine test kit. Adjust and maintain pool water pH to between 7.2 and 7.8. Some oils, lotions, fragrances, cleaners, etc. may cause foaming or cloudy water

as well as reduce the efficiency of the product.

To maintain the water, apply 9 oz. of product per 1000 gallons of water over the surface to maintain a chlorine concentration of 5 ppm. After each use, shock treat with 13.6 oz. of this product per 500 gallons of water to control odor and algae.

Re-entry into treated pools is prohibited above levels of 5 ppm due to risk of bodily harm.

During extended periods of disuse, add 5.1 oz. of product daily per 1000 gallons of water to maintain a 3 ppm chlorine concentration.

HUBBARD AND IMMERSION TANKS -Add 9 oz. of this product per 200 gallons of water before patient use to obtain a chlorine residual of 25 ppm, as determined by a suitable test kit. Adjust and maintain the water pH to between 7.2 and 7.6. After each use, drain the tank. Add 9 oz. to a bucket of water and circulate this solution through the agitator of the tank for 15 minutes and then rinse out the solution. Clean tank thoroughly and dry with clean cloths. **[NOT FOR USE IN CALIFORNIA]**

HYDROTHERAPY TANKS - Add 1.8 oz. of this product per 1000 gallons of water to obtain a chlorine {01621.006 / 111 / 00325749.DOCX 2}

residual of 1 ppm, as determined by a suitable chlorine test kit. Pool should not be entered until the chlorine residual is below 3 ppm. Adjust and maintain the water pH to between 7.2 and 7.6. Operate pool filter continuously. Drain pool weekly, and clean before refilling.

SANITIZATION OF NONPOROUS FOOD CONTACT SURFACES

RINSE METHOD - A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to insure the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1.8 oz. of this product with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 3.6 oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient product to reestablish a 200 ppm residual, Do not rinse equipment with water after treatment and do not soak equipment overnight.

Sanitizers used in automated systems may be used for general cleaning but may not be reused for sanitizing purposes.

IMMERSION METHOD - A solution of 100 ppm available chlorine may be used in the sanitizing solution if a chlorine test kit is available. Solutions containing an initial concentration of 100 ppm available chlorine must be tested and adjusted periodically to ensure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1.8 oz. of this product with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 3.6 oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight.

Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. If solution contains less than 50 ppm available chlorine, as determined by a suitable test kit, either discard the solution or add sufficient product to reestablish a 200 ppm residual. Do not rinse equipment with water after treatment.

Sanitizers used in automated systems may be used for general cleaning but may not be reused for sanitizing purposes.

FLOW/PRESSURE METHOD - Disassemble equipment and thoroughly clean after use. Assemble equipment in operating position prior to use. Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing the product in a ratio of 3.6 oz. product with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 2 minutes to ensure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine.

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CLEAN-IN-PLACE METHOD - Thoroughly clean equipment after use. Prepare a volume of a 200 ppm available chlorine sanitizing solution equal to 110% of volume capacity of the equipment by mixing the product in a ratio of 3.6 oz. product with 10 gallons of water. Pump solution through the system until full flow is obtained at all extremities, the system is completely filled with the sanitizer and all air is removed from the system. Close drain valves and hold under pressure for at least 10 minutes to ensure contact with all internal surfaces. Remove some cleaning solution from drain valve and test with a chlorine test kit. Repeat entire cleaning/sanitizing process if effluent contains less than 50 ppm available chlorine.

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SANITIZING OF POROUS FOOD CONTACT SURFACES

RINSE METHOD - Prepare a sanitizing solution by thoroughly mixing 10.75 oz. of this product with 10 gallons of water to provide 600 ppm available chlorine by weight. Clean surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes and allow the sanitizer to drain.

Prepare a 200 ppm sanitizing solution by thoroughly mixing 3.6 oz. of this product with 10 gallons of water and rinse all surfaces with this 200 ppm solution. Do not rinse with water and do not soak equipment overnight.

IMMERSION METHOD - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 10.75 oz. of this product with 10 gallons of water to provide 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution, maintaining contact for at least 2 minutes and allow the sanitizer to drain. Following this, prepare a 200 ppm sanitizing solution by thoroughly mixing 3.6 oz. of this product with 10 gallons of water and rinse all surfaces with this 200 ppm solution. Do not rinse with water and do not soak equipment overnight.

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SANITIZATION OF NONPOROUS NON-FOOD CONTACT SURFACES

RINSE METHOD - Prepare a sanitizing solution by thoroughly mixing 3.6 oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment surfaces in the normal manner, Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

IMMERSION METHOD - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 3.6 oz. of this product with 10 gallons of water to provide approximately 200 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

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SANITIZATION OF POROUS NON-FOOD CONTACT SURFACES

RINSE METHOD - Prepare a sanitizing solution by thoroughly mixing 10.75 oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the sanitizing solution, maintaining contact with the sanitizer for at least 2 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

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IMMERSION METHOD - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 10.75 oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment in the normal manner. Prior to use, immerse equipment in the sanitizing solution for at least 2 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

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SPRAY METHOD – After cleaning, sanitize non-food contact surfaces with 600 ppm available chlorine by thoroughly mixing the product in a ratio of 10.75 oz. of this product with 10 gallons of water. Use spray equipment which can resist hypochlorite solutions.

Always empty and rinse spray equipment with potable water after use. Prior to using equipment, thoroughly spray all surfaces until wet, allowing excess sanitizer to drain, Vacate area for at least 2

hours.

SEWAGE & WASTEWATER EFFLUENT TREATMENT

The disinfection of sewage effluent must be evaluated by determining the total number of coliform bacteria and/or fecal coliform bacteria, as determined by the Most Probable Number (MPN) procedure, of the chlorinated effluent has been reduced to or below the maximum permitted by the controlling regulatory jurisdiction.

On the average, satisfactory disinfection of secondary wastewater effluent can be obtained when the chlorine residual is 0.5 ppm after 15 minutes contact. Although the chlorine residual is the critical factor in disinfection, the importance of correlating chlorine residual with bacterial kill must be emphasized. The MPN of the effluent, which is directly related to the water quality standards requirements, should be the final and primary standard and the chlorine residual should be considered an operating standard valid only to the extent verified by the coliform quality of the effluent.

The following are critical factors affecting wastewater disinfection.

- 1. Mixing: It is imperative that the product and the wastewater be instantaneously and completely flash mixed to assure reaction with every chemically active soluble and particulate component of the wastewater.
- 2. Contacting: Upon flash mixing, the flow through the system must be maintained.
- 3. Dosage/Residual Control: Successful disinfection is extremely dependent on response to fluctuating chlorine demand to maintain a predetermined, desirable chlorine level, Secondary effluent should contain 0.2 to 1.0 ppm chlorine residual after a 15 to 30 minute contact time. A reasonable average of residual chlorine is 0.5 ppm after 15 minutes contact time.

SEWAGE AND WASTE WATER TREATMENT

EFFLUENT SLIME CONTROL - Apply a 100 to 1000 ppm available chlorine solution at a location which will allow complete mixing. Prepare this solution by mixing 17.9 to 179 oz. of this product with 100 gallons of water. Once control is evident, apply a 15 ppm available chlorine solution, Prepare this solution by mixing 1.35 oz. of this product with 100 gallons of water,

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FILTER BEDS - SLIME CONTROL: Remove filter from service, drain to a depth of 1 ft. above Filter sand and add 136 oz. of product per 20 sq/ft evenly over the surface. Wait 30 minutes before draining water to a level that is even with the top of the filter. Wait for 4 to 6 hours before completely {01621.006 / 111 / 00325749.DOCX 2}

draining and backwashing filter.

COOLING TOWER/EVAPORATIVE CONDENSER WATER

SLUG FEED METHOD - Initial Dose: When system is noticeably fouled, apply 90 to 180 oz. of this product per 10,000 gallons of water in the system to obtain from 5 to 10 ppm available chlorine. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 17 oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Badly fouled systems must be cleaned before treatment has begun.

INTERMITTENT FEED METHOD - Initial Dose: When system is noticeably fouled, apply 90 to 180 oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has

been lost byblowdown.

Subsequent Dose: When microbial control is evident, add 17 oz. of this product per 10000 gallons of water in the system to obtain a 1 ppm residual. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment has begun.

CONTINUOUS FEED METHOD - Initial Dose: When system is noticeably fouled, apply 90 to 180 oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 1.7 oz. of this product per 1,000 gallons of water lost by blowdown to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment has begun.

PULP AND PAPER MILL PROCESS WATER SYSTEMS

SLUG FEED METHOD - Initial Dose: When system is noticeably fouled, apply 90 to 180 oz. of this product per 10,000 gallons of water in the system to obtain from 5 to 10 ppm available chlorine. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 17 oz. of this product per 10,000 gallons of water in the system daily, or as needed to maintain control and keep the chlorine residual at 1 ppm. Badly fouled systems must be cleaned before treatment has begun.

INTERMITTENT FEED METHOD - Initial Dose: When system is noticeably fouled, apply 90 to 180 oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown.

Subsequent Dose: When microbial control is evident, add 17 oz. of this product per 10,000 gallons of water in the system to obtain a 1 ppm residual. Apply half (or 1/3, 1/4, or 1/5) of this initial dose when half (or 1/3, 1/4, or 1/5) of the water in the system has been lost by blowdown. Badly fouled systems must be cleaned before treatment has begun.

CONTINUOUS FEED METHOD - Initial Dose: When system is noticeably fouled, apply 90 to 180 oz. of

this product per 10000 gallons of water in the system to obtain 5 to 10 ppm available chlorine.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 1.7 oz. of this product per 1000 gallons of water lost by blowdown to maintain a 1 ppm residual. Badly fouled systems must be cleaned before treatment is begun.

AGRICULTURAL USES

POST-HARVEST PROTECTION - Potatoes can be sanitized after clearing and prior to storage by spraying with a sanitizing solution at a level of 1 gallon of sanitizing solution per ton of potatoes. Thoroughly mix 1.8 oz. of this product to 2 gallons of water to obtain 500 ppm available chlorine.

Disinfect leaf cutting bee cells and bee boards by immersion in a solution containing 1 ppm available chlorine for 3 minutes, allow cells to drain for 2 minutes and dry for 4 to 5 hours or until no chlorine odor can be detected. This solution is made by thoroughly mixing 1 tsp. of this product to 100 gallons of water. The bee domicile is disinfected by spraying with a 0.1 ppm solution until all surfaces are thoroughly wet. Allow the domicile to dry until all chlorine odor has dissipated. [Not for use in California]

FOOD EGG SANITIZATION - Thoroughly clean all eggs. Thoroughly mix 3.6 oz. of this product with 10 gallons of warm water to produce a 200 ppm available chlorine solution. The sanitizer temperature should not exceed 130 degrees F. Spray the warm sanitizer so that the eggs are thoroughly wetted. Allow the eggs to thoroughly dry before casing or breaking. Do not apply a potable water rinse. The solution should not be re-used to sanitize eggs.

FRUIT & VEGETABLE WASHING - Thoroughly clean all fruits and vegetables In a wash tank. Thoroughly mix 9 oz. of this product in 200 gallons of water to make a sanitizing solution of 25 ppm available chlorine. After draining the tank submerge fruit or vegetables for 2 minutes in a second wash tank containing the recirculating sanitizing solution. Spray rinse vegetables with the sanitizing solution prior to packaging. Rinse fruit with potable water only prior to packaging.

AQUACULTURAL USES

FISH PONDS - Remove fish from ponds prior to treatment. Thoroughly mix 180 oz. of this product to 10000 gallons of water to obtain 10 ppm available chlorine. Add more product to the water if the available chlorine level is below I ppm after 5 minutes. Return fish to pond <u>after</u> the available chlorine level reaches zero.

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FISH POND EQUIPMENT - Thoroughly clean all equipment prior to treatment. Thoroughly mix 3.6 oz. of this product to 10 gallons of water to obtain 200 ppm available chlorine. Porous equipment should soak for one hour.

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MAINE LOBSTER PONDS – Remove lobsters, seaweed, etc. from ponds prior to treatment. Drain the pond. Thoroughly mix 84 gallons. of this product to 10,000 gallons of water to obtain at least 600 ppm available chlorine. Apply so that all barrows, gates, rocks and dams are treated with product. Permit high tide to fill the pond and then close the gates. Allow water to stand for 2 to 3 days until the available chlorine level reaches zero. Open and allow 2 tidal cycles to flush the pond before returning lobsters to the pond. **[NOT FOR USE IN CALIFORNIA]**

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CONDITIONING LIVE OYSTERS - Thoroughly mix 9 oz. of this product to 10,000 gallons of water at 50 to 70 degrees F to obtain 0.5 ppm available chlorine. Expose oysters to this solution for at least 15 minutes, monitoring the available chlorine level so that it does not fall below 0.05 ppm. Repeat entire process if the available chlorine level drops below 0.05 ppm or the temperature falls below 50 degrees F. [Not for use in California]

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CONTROL OF SCAVENGERS IN FISH HATCHERY PONDS - Prepare a solution containing 200 ppm of available chlorine by mixing 3.6 oz. of product with 10 gallons of water. Pour into drained pond potholes. Repeat if necessary. Do not put desirable fish back into refilled ponds until chlorine residual has dropped to O ppm, as determined by a test kit.

ASPHALT OR WOOD ROOFS AND SIDINGS

To control fungus and mildew, first remove all physical soil by brushing and hosing with clean water, and apply a 5000 ppm available chlorine solution, Mix 9 oz, of this product per gallon of water and brush or spray roof or siding. After 30 minutes, rinse by hosing with clean water. [Not for Use in California]

BOAT BOTTOMS

To control slime on boat bottoms sling a plastic tarp under boat, retaining enough water to cover the fouled bottom area, but not allowing water to enter enclosed area. This envelope should contain approximately 500 gallons of water for a 14 foot boat. Add 32 oz. of this product to this water to obtain a 35 ppm available chlorine concentration. Leave immersed for 8 to 12 hours.

Repeat if necessary. Do not discharge the solution until the free chlorine level has dropped to 0 ppm, as determined by a swimming pool test kit. [Not for Use in California]

ARTIFICIAL SAND BEACHES

To sanitize the sand, spray a 500 ppm available chlorine solution containing 9 oz. of this product per 10 gal. of water at frequent intervals. Small areas can be sprinkled with a watering can. [Not for Use in California]

WARE WASHING

FOR SANITIZING TABLEWARE IN LOW TEMPERATURE DISHWASHING MACHINE -

Dispense this product into final rinse water at 100 ppm available chlorine. Do not allow concentration to fall below 50 ppm. Air dry. Dispenser should be set to deliver 5.2 cc of sanitizing solution per gallon of water to give 100 ppm of available chlorine. Only a qualified service representative should set or adjust dispenser on the machine.

VERTEX CSS 7.5 (EPA Reg. No. 9616-XXX) [REGISTERED AS Insert Registered Alternate Brand Name] DILUTION TABLE

To obtain a solution with an approximate available chlorine level (parts per million), thoroughly mix the indicated amounts of bleach and water. Use the Dilution Table to make the desired dilution]. Use chlorine test strips to quantify the available chlorine. If the available chlorine is less than desired, add a small amount of product slowly and carefully to the dilution and determine the available chlorine with a fresh chlorine test strip. Repeat these steps, as needed, until the desired concentration of chlorine is achieved. Always test to ensure efficacy.

Approximate ppm Available Chlorine	Volume of this product	Volume of Water
0.5	1fl oz	1,000 gal[lons]
	1 drop	2 gal[lons]
5	1 fl oz	110 gal[lons]
	7 drops	1 gal[lon]
	1/2 tsp	10 gal[lons]
10	1 tsp	10 gal[lons]
	1fl oz	55 gal[lons]
	14 drops	1 gal[lon]
50	3/4 gal[lon]	1,000 gal[lons]
	3 tsp	5 gal[lons]
	2 Tbsp	10 gal[lons]
100	1-3/4 fl oz	10 gal[lons]
200	4 fl oz	10 gal[lons]
300	1/2 Tbsp	1/2 gal[lon]
500	1/3 cup	3 gal[lons]
600	11 fl oz	10 gal[lons]
1,100	1/4 cup	1 gal[lon]