



**JENFITCH INC.**  
 712 Bancroft Rd #805  
 Walnut Creek, CA 94598  
 Office: 925-289-3559  
 Fax: 925-289-0094  
 sales@jenfitch.com

# JC 9465

**ACTIVE INGREDIENT:**

Sodium Hypochlorite ..... 12.5%

OTHER INGREDIENTS ..... 87.5%

TOTAL: ..... 100.0%

[Contains 11.9% available chlorine]

**KEEP OUT OF REACH OF CHILDREN**

## DANGER

<b>FIRST AID</b>	
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with plenty of water for 15 – 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off all contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 – 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>Note to Physician:</b> Probable mucosal damage may contraindicate the use of gastric lavage.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For general information on product use, etc., call the National Pesticides Information Center at 1-800-858-7378. For emergencies, call the poison control center 1-800-222-1222.	

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER:** Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wear 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. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated.

[For products packaged in containers 5 gallons or greater.]

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other 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 EPA.

#### PHYSICAL OR CHEMICAL HAZARDS

**STRONG OXIDIZING AGENT:** Mix only with water according to label directions. Mixing this product with chemicals (e.g. ammonia, acids, detergents, etc.) or organic matter (e.g. urine, feces, etc.) will release chlorine gas which is irritating to eyes, lungs and mucous membrane.

#### STORAGE AND DISPOSAL

**Do not contaminate food or feed by storage, disposal, or cleaning of equipment.**

**STORAGE:** Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water.

**PESTICIDE DISPOSAL:** Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer.

#### CONTAINER HANDLING:

[Nonrefillable container, 5 gallons or less]

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple Rinse as follows: Fill container ¼ full with water and recap. Shake for 10 seconds. Drain for 10 seconds after the flow begins to drip. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times.

[Nonrefillable container, greater than 5 gallons]

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple Rinse as follows: Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Follow Pesticide Disposal instructions for rinsate disposal. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate or place in trash.

[Refillable container]

Refillable container. Refill this container with sodium hypochlorite only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning the container before refilling is the responsibility of the refiller. To clean the container before final disposal, fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times. Offer container for recycling if available or reconditioning if appropriate or place in trash.

**Manufactured by:**

JENFITCH, INC.  
 712 Bancroft Rd. Suite 805  
 Walnut Creek, CA 94598

EPA Reg. No. 92945-1

EPA Est. No. 44917-CA-1 (A), 92954-TX-1 (B), 67829-FL-1(C)

Letter designation in lot code printed above or below label on container identifies actual establishment

Plant No.

Lot No.

Net Weight:



## PRECAUTIONARY STATEMENTS (CON'T)

### [DRINKING WATER DISINFECTION END USE PRODUCTS]

#### [“The following practices help to minimize degradant formation in drinking water disinfection:

1. It is recommended to minimize storage time.
2. It is recommended that the pH solution be in the range of 11-13.
3. It is recommended to minimize sunlight exposure by storing in opaque containers and / or in a covered area. Solutions should be stored at lower temperatures. Every 5o C reduction in storage temperature will reduce degradant formation by a factor of two.
4. Dilution significantly reduces degradant formation. For products with higher concentrations, it is recommended to dilute hypochlorite solutions with cool, softened water upon delivery, if practical for the application.

#### STORAGE AND DISPOSAL

**Do not contaminate food or feed by storage, disposal, or cleaning of equipment. PESTICIDE STORAGE:** Store this product in a cool dry area, away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. **PESTICIDE DISPOSAL:** Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer or other approved disposal facility.

#### CONTAINER HANDLING

[Nonrefillable container, 5 gallons or less]

[Residential Uses Only]

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple Rinse as follows: Fill container ¼ full with water and recap. Shake for 10 seconds. Drain for 10 seconds after the flow begins to drip. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times.

[Nonrefillable container, greater than 5 gallons]

[Institutional uses only]

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple Rinse as follows: Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Follow Pesticide Disposal instructions for rinsate disposal. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate or place in trash.

[Refillable container]

[Institutional uses only]

Refillable container. Refill this container with sodium hypochlorite only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning the container before refilling is the responsibility of the refiller. To clean the container before final disposal, fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times. Offer container for recycling if available or reconditioning if appropriate or place in trash. Tank Cars and Tank Trucks: Refill with bleach OR triple or pressure rinse empty tank car or tank truck to remove bleach residues before filling with other product. Drums, Totes, and Intermediate Bulk Containers (IBC): Refill with bleach only. Triple or pressure rinse nonrefillable or cracked refillable containers and offer for recycling, reconditioning or disposal. Dispose of residue rinsates in a sanitary sewer or other approved disposal facility.

[Ship and store this container in an upright position at all times.] [Vented cap may leak causing bleaching and damage.] [Notice: Apply this product only as specified on this label. To the extent consistent with applicable law, buyer assumes all risks of use and/or handling of this product if used contrary to label directions.]

[Ship and store this container in an upright position at all times.]

[Vented cap may leak causing bleaching and damage.] [Notice: Apply this product only as specified on this label. To the extent consistent with applicable law, buyer assumes all risks of use and/or handling of this product if used contrary to label directions.]

[Products must bear a batch code. This is a lot number or other code used by the registrant of producer to identify the batch of the product distributed and sold. Location optional.]

## DIRECTIONS FOR USE

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

### COOLING TOWER/EVAPORATIVE CONDENSER WATER

**SLUG FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 11 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 is begun.

**INTERMITTENT FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 11 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 is begun.

**CONTINUOUS FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 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.

### PULP AND PAPER MILL PROCESS WATER SYSTEMS

**SLUG FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 11 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 is begun.

**INTERMITTENT FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 11 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 is begun.

**CONTINUOUS FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 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.

## OTHER USES

### FRUIT & VEGETABLE WASHING

For Control of Organisms Causing Decay after Harvest

To use this product for washing fruit and vegetables, first remove loose soil and other residues. Apply this product at the recommended concentration of available chlorine. See the following table for recommended usage concentrations for the fruit or vegetable being washed. To prepare a 100 ppm available chlorine solution, add 0.75 gallon of this product to 1,000 gallons of water. The use of a calcium carbonate buffer to control pH is recommended. Maintain the pH of the use solution between 6.0 and 8.0 with a dilute solution of food grade acid.

## **DIRECTIONS FOR USE**

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

NOTE: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine.

*[Due to label size limitations, a subset of directions may be placed on the container, with the remaining directions referenced as follows:]*

**ADDITIONAL DIRECTIONS FOR USE:** See Jenfitch Master label. The Master label need not accompany shipment. [This product may be applied only by the methods specified on the labeling.] [Remove the cap and insert the product pick-up tubing fully to the bottom of the container. Replace when empty.]

**[POOL, SPA, HOT TUB, AND FOUNTAIN END USE PRODUCTS:** “Discharge Directions for [Commercial] and [Residential] [Pool,] [Spa,] [Hot Tub,] and [Fountain] Uses:

Before draining a treated [pool,] [spa,] [hot tub,] or [fountain] contact your local sanitary sewer and storm drain authorities and follow their discharge instructions. Do not discharge treated pool or spa water to any location that flows to a gutter, storm drain or natural water body unless discharge is allowed by state and local authorities.”

For end-use products, NPDES permit language for pool, spa, hot tub, or fountain use is not required and must be removed if currently on the label associated with these uses.]

## **COOLING TOWER/EVAPORATIVE CONDENSER WATER**

**SLUG FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 11 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 is begun.

**INTERMITTENT FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 11 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 is begun.

**CONTINUOUS FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 oz. of this product per 10,000 gallons of water in the system to obtain 5 to 10 ppm available chlorine.

Subsequent Dose: Maintain his treatment level by starting a continuous feed of 1 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.

## **PULP AND PAPER MILL PROCESS WATER SYSTEMS**

**SLUG FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 11 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 is begun.

**INTERMITTENT FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 11 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 is begun.

**CONTINUOUS FEED METHOD** - Initial Dose: When system is noticeably fouled, apply 52 to 104 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 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.

## **OTHER USES**

### **FRUIT & VEGETABLE WASHING For Control of Organisms Causing Decay after Harvest**

Thoroughly clean all fruits and vegetables in a wash tank. Thoroughly mix 5 oz of this product in 200 gallons of water to make a sanitizing solution of 25 ppm available chlorine. After draining the tank, submerge fruits or vegetables for 2 minutes in a second wash tank containing the recirculating sanitizing solution. Spray and/or rinse vegetables or fruits with the sanitizing solution prior to packaging. Rinse fruits or vegetables with potable water only prior to packaging.

Alternative directions for use can be substitute for the above directions.

To use this product for washing fruits and vegetables, first remove loose soil and other residues. Apply this product at the recommended concentration of available chlorine. See the table, "Recommended Levels of Chlorine for Control of Organisms causing decay after Harvest," for recommended usage concentrations for the fruit or vegetable being washed. To prepare a 100 ppm available chlorine solution, add 0.75 gallon of this product to 1,000 gallons of water. The use of a calcium carbonate buffer to control pH is recommended. Maintain the pH of the use solution between 6.0 and 8.0 with a dilute solution of food grade acid.

For citrus quarantine, use at 200 ppm at pH 6.0 to 7.5. Apply for two minutes using a suitable spray or dip tank.

### **DISINFECTION OF DRINKING WATER – PUBLIC SYSTEMS**

Mix a ratio of 1 oz. of this product to 100 gallons of water. Begin feeding this solution with a hypo-chlorinator until a free available chlorine residual of at least 0.2 ppm and no more than 0.6 ppm is attained throughout the distribution system. Check water frequently with a chlorine test kit. Bacteriological sampling must be conducted at a frequency no less than that prescribed by the National Primary Drinking Water Regulations. Contact your local health department for further details.



**DIRECTIONS FOR USE AS A MACROFOULANT CONTROL AGENT FOR INDUSTRIAL WATER SYSTEMS**

Aquatic macrofouling organisms (i.e. Zebra Mussel (*Dreissena polymorpha*), Quagga Mussels (*Dreissena bugensis*), Blue Mussels (*Mytilus edulis*), Asian Clam (*Corbicula fluminea*)) can detect chemical changes in their environment and close their shells for a period of weeks. The closure period may last 3 - 5 weeks. This condition will remain until those changes are no longer detected, or the organisms die through lack of respiration. Chemical treatment times and concentrations may vary, because of the organism's biological ability of detection; the extent of the macrofoulant contamination; and the design variations of the system.

**SINGLE EXPOSURE** – To control macrofoulants, add 100-200 oz. of this product per 10,000 gallons of water in the system to obtain a residual chlorine concentration of 10-20 ppm. For the best results treat during the breeding season and/or at the end of the season for at least 30 days. The release of zebra mussels for weeks after this method of treatment is not uncommon.

**SEMI-CONTINUOUS EXPOSURE** – To control macrofoulants, add 52-104 oz. of this product per 10,000 gallons of water in the system, 15 to 30 minutes a day, to obtain a residual chlorine concentration of 5-10 ppm. For the best results, initiate treatment during the breeding season (June to September).

**CONTINUOUS EXPOSURE** - To control macrofoulants, add 52-104 oz. of this product per 10,000 gallons of water in the system to obtain a residual chlorine concentration of 5-10 ppm. For the best results, apply during the breeding season (June to September).

<b>Treatment Method</b>	<b>Dosage 12.5% Sodium Hypochlorite</b>
Single Dosage (10-20 ppm)	100-200 oz. / 10,000 gallons
Semi-continuous (5-10 ppm)	52-104 oz. / 10,000 gallons
Continuous (5-10 ppm)	52-104 oz. / 10,000 gallons

Alternatively, make a 1.5 wt. % available chlorine (Av. Cl<sub>2</sub>) solution by adding 135 oz. of this solution per 10 gallons of water, and dose as follows:

<b>Treatment Method</b>	<b>Dosage pump rate with 1.5 wt. % Av. Cl<sub>2</sub> Solution</b>
Single Dosage (10-20 ppm)	40-80 gph per 1,000 gpm of flowing water
Semi-continuous (5-10 ppm)	20-40 gph per 1,000 gpm of flowing water
Continuous (5-10 ppm)	20-40 gph per 1,000 gpm of flowing water

*Note: The dosages above are approximate. Always test for available chlorine to ensure a proper dosage rates are achieved. If treatment levels would exceed NPDES/SPDES permit limits, dechlorination must be performed prior to discharge of the treated effluent.*

## **CLEANING FORMULATIONS, BLEACHING, & NON-PESTICIDE CHEMICAL MANUFACTURING**

This product may be used for cleaning formulations, bleaching and non-pesticidal chemical manufacturing. Only specifically designed handling and dispensing equipment should be used in accordance with manufacturer's instructions and according to operating instructions or product formulations defined by the use facility.

(See booklet for additional use instructions)

*[Railcars/Tank Trucks/Bulk >\_ 50 gallons: The booklet is provided to the customer separately and is not required to accompany the shipment]*

*[The following may be used on labeling to assist in tracking production label dates:]*  
*[ESL and/or ENL [insert date[s]]]*



### Recommended Levels Of Chlorine For Control Of Organisms Causing Decay After Harvest

Maintain the following temperatures:  
 Tank/Flume: 60-70°F      Spray: 65 -75°F      Hydrocooler: 34 -40°F  
 Do notrinsetreatedcommoditieswithwaterpriortopackaging.

COMMODITY	TREATMENT METHOD	PPM AVAILABLE CHLORINE TO APPLY	COMMENTS
Apples	Dump Tank Flume Spray	100-150 30-50 100-150	For dump tank and flume, submerge the apples for 90 seconds. Spray until thoroughly wet.
Artichokes	Spray	100-150	Spray until thoroughly wet.
Asparagus	Spray Hydrocooler	100-150 125-150	Spray until thoroughly wet. Hydrocool for 20 - 30 minutes
Brussel Sprouts	Spray	100-150	Spray until thoroughly wet.
Cabbage (chopped)	Spray	80-100	Sprayuntilthoroughlywet..Aftertreatment,theadheringmoisturemustbe removed by centrifuging.
Carrots	Dump Tank Flume Spray	100-200 100-200 50-100	Immerse in dump tank or flume for 1 - 5 minutes. Spray until thoroughly wet.
Cauliflower	Spray	300-400	Spray until thoroughly wet.
Celery	Spray	100	Spray until thoroughly wet.
Cherries	Spray	75-100	Spray until thoroughly wet.
Garlic	Spray Dump Tank	75-100 75-150	Spray until thoroughly wet. Immerse in tank for 2 - 5 minutes contact.
Grapefruit	Spray Drench	40 - 75 100 - 150	Spray until thoroughly wet. Drench for 3-5 minutes. For citrus quarantine treatment, use 200 ppm of available chlorine at pH 6.0 - 7.5 in drench tank.
Lemons	Dump Tank	30-50	Immerse in dump tank for 2 - 3 minutes.
Lettuce (chopped)	Spray	80-100	Spray until thoroughly wet. After treatment, the adhering moisture must be removed by centrifuging.
Melon (all varieties)	Hydrocooler Spray	30-75 100-200	Hydrocool for 20 - 30 minutes. Spray until thoroughly wet.
Mushrooms	Spray	100-200	Spray until thoroughly wet. Aftertreatment with the chlorinated water, mushrooms must be treated with anti-oxidant to prevent browning.

COMMODITY	TREATMENT METHOD	PPM AVAILABLE CHLORINE TO APPLY	COMMENTS
Onions (dry)	Spray Tank	75-150 75-150	Spray until thoroughly wet. Immerse in tank for 2 - 3 minutes.
Onions (green)	Spray	75-120	Spray until thoroughly wet.
Oranges	Drench Spray	100-200 40-75	Drench for 3 - 5 minutes. Spray until thoroughly wet.
Nectarines	Hydrocooler Spray	30 – 75 50 – 100	Hydrocool for 20 - 30 minutes. Spray until thoroughly wet.
Peaches	Hydrocooler Spray	30 – 75 50 – 100	Hydrocool for 20 - 30 minutes. Spray until thoroughly wet.
Pears	Dump Tank	200-300	Immerse in tank for 2 - 3 minutes
Peppers (Not for Use in CA)	Spray	300-400	Spray until thoroughly wet.
Pineapples (Not for use in CA)	Spray Drench Dump Tank	100 -150 40 -100 30 - 100	Spray until thoroughly wet. Drench for 3 - 5 minutes Remove from tank after 2 - 5 minutes. Potable water rinse is not required for pineapple
Plums	Hydrocooler Spray	30-75 50-100	Hydrocool for 20 - 30 minutes. Spray until thoroughly wet.
Potatoes	Dump Tank Flume Spray	30 – 100 200 – 300 100 - 200	Immerse in tank or flume for 2 - 5 minutes. Spray until thoroughly wet.
Potatoes (white)	Spray	500-600	This concentration of chlorine should be used only if bleaching of potatoes is desirable. Spray until thoroughly wet.
Radishes	Dump Tank Spray	10-25 100-150	Immerse in tank for 1 – 12 seconds Spray until thoroughly wet.
Spinach	Spray	75-150	Spray until thoroughly wet.
Tomatoes	Tank Spray	200-350 100-150	Immerse in tank for 2 - 3 minutes. Spray until thoroughly wet.
Yams	Tank	100-200	Immerse in tank for 2 - 3 minutes

## JC 9465 DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Note: This product degrades with age. Use a chlorine test kit or ORP meter and increase dosage, as necessary, to obtain the required level of available chlorine. See Label for additional information.

### AGRICULTURAL USES

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirement for the protection of agricultural workers on farms, forests, nurseries, greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Workers Protection Standard.

The Restricted-Entry Interval (REI) is 0 days when using this product.

There are no posting or notification requirements when using this product.

Personal Protective Equipment must be worn as described under the "Precautionary Statements" section of this label.

**DRIP IRRIGATION** – This product is to be applied through drip/trickle sprinkler irrigation systems only for agricultural crops and only where this manner of use will not cause crop damage. The plugging

of drip irrigation emitters is a universal problem that will cause a lack of water application uniformity. One of the primary causes of emitter plugging is the proliferation of bacteria and algae within the lines and emitters of a drip irrigation system. This product is an additive that controls both algae and bacterial growth resulting in a uniform distribution of water. The amount of this product required for injection into the irrigation water to supply a desired dosage in ppm can be calculated by the following equation:

$$I = (0.006) (\text{ppm desired}) (\text{system flow rate in gallons per minute}) / (\text{bleach strength})$$

With a chlorine test kit or ORP meter, determine the residual chlorine at the emitter farthest from the injection pump. The residual chlorine should be between 1.0 ppm and 2.0 ppm with a water pH of 7.2 - 7.6.

**NOTE:** This calculation, when applied to clean water which is free of amine nitrogen and organic nutrients, will give a result close to the actual product injection rate required. In actual practice, however, contaminants in the water may consume the product such that the available chlorine concentration is less than expected from the calculation. To correctly establish the product dose setting required, it is necessary to measure the available chlorine at the end of the treated increment in the field and adjust the dose setting until the desired available chlorine concentration is obtained. Only experience can establish the actual injector settings required to provide the desired level of available chlorine at the end of the farthest lateral.

Injection should be started during irrigation, near the end of the irrigation sequence, but early enough to establish the desired available chlorine concentration throughout the system being treated. Apply the product upstream of the filter to help keep the filter clean. Allow sufficient time to achieve a steady reading.

If the irrigation water has high levels of nutrients causing bacterial, algae, or other bio-fouling that reduces system performance, continuous use of this product may be necessary. The recommended level of free

residual chlorine for continuous feed is 1 to 2 ppm, measured at the end of the farthest lateral using a good quality test kit for free chlorine (also called “free residual” or “free available” chlorine) or an ORP meter.

Periodic shock treatments at a higher chlorine rate of up to 20 ppm free residual may be appropriate where bacteria and/or algae clogging and build-up are not managed by maintaining a continuous residual. The frequency of the shock application depends upon the frequency and extent of bio-clogging.

Bringing concentrations to as much as 100 ppm total available chlorine, is recommended for reclaiming low-volume irrigation systems if clogged by algae and bacterial slimes. Deliver 100 ppm in the drip system and monitor the free chlorine residual at the end of the farthest lateral. As soon as it is established that the free residual reading is between 10 and 20 ppm, shut the system down and leave it undisturbed for up to 24 hours. Then flush all sub-mains and laterals with freshwater. **JC 9465** will not dissolve or remove scale or inorganic sediment fouling.

**DO NOT** apply when fertilizers, herbicides, and insecticides are being injected since they will consume the available chlorine and may produce toxic reaction products. Shut down the feed as soon as the irrigation water is switched to the next irrigation sector. Leave the treated water residing in the section which has been shut down.

If its source water is connected to a potable water system, the irrigation water system must contain a functional reduced-pressure-principle back-flow prevention device approved by your state Department of Health, appropriately situated to prevent contamination of the potable water system. This device must be certified operational by an agent authorized for making certifications by the state Department of Health.

**SENSITIVE PLANT SPECIES-** Certain plants, including various species of trees, flowers, shrubs, agronomic crops, fruits, and vegetables are adversely affected by chlorinated irrigation. The use of this product can impact the growth, appearance, and health of the plants. Begonias, geraniums, and other ornamental plant species are known to be sensitive to continuous chlorination at levels of 1-2 ppm free chlorine. Plant species such as tomato, lettuce, broccoli, and petunia are sensitive to periodic chlorination levels of 10-20 ppm free chlorine.

If uncertain of a plant’s tolerance, consult an agronomist or a support agency such as your local University Extension Service or your local agent of the US Department of Agriculture or use an alternate method to remove bio-fouling from the irrigation system.

**CONTROLLING SEEDBORNE BAKANAE DISEASE OF RICE-** To aid in surface sterilization of rice seed for prevention of bakanae disease *Fusarium fujikuroi* [syn. *F. moniliforme*] or *Gibberella fujikuroi*, mix 2.64 gallons of this product per 110 gallons of water to make a 3000 ppm available chlorine solution. Mix solution thoroughly, then apply to seeds. Soak the seeds for two hours, then drain solution and replace with fresh water. Continue seed soaking and draining as usual. Do not apply undiluted product directly to seed. Alternatively, make a 1500 ppm available chlorine solution by mixing 1.32 gallons of this product with 110 gallons of water. Mix solution thoroughly, then apply to seeds. Soak and drain seed as usual. No rinsing is required. Do not apply undiluted product directly to seed. Prepare a fresh solution for each batch of seed. Do not use treated seeds for food or feed.

**FOR CONTROL OF ORGANISMS CAUSING DECAY AFTER HARVEST** -Thoroughly clean all fruits and vegetables in a wash tank. Thoroughly mix 5 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.

To use this product for washing fruit and vegetables, first remove loose soil and other residues. Apply this product at the recommended concentration of available chlorine. See the table, "Recommended Levels of Chlorine for Control of Organisms causing decay after Harvest," for recommended usage concentrations for fruits or vegetables being washed. To prepare a 100 ppm available chlorine solution, add 0.75 gallon of this product to 1,000 gallons of water. The use of a calcium carbonate buffer to control pH is recommended. Maintain the pH of the use solution between 6.0 and 8.0 with a dilute solution of food grade acid.

[Booklet]

**JC 9465**  
**DIRECTIONS FOR USE**

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Note: This product degrades with age. Use a chlorine test kit and increase dosage, as necessary, to obtain the required level of available chlorine. See Label for additional information.

**NON-AGRICULTURAL USES**

**SWIMMING POOL WATER DISINFECTION** – For a new pool or spring start-up, super chlorinate with 52 to 104 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 11 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, super chlorinate the pool with 52 to 104 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. Re-entry into treated pools is prohibited at levels above 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 pool within 24 hours prior to discharge.

Winterizing Pools – While water is still clear and clean, apply 3 oz. of product per 1000 gallons, while filter is running, to obtain a 3.0 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**– Apply 5 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. Re-entry into treated spas/hot tubs is prohibited at levels above 5 ppm due to risk of bodily harm.

To maintain the water, apply 5 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 8 oz. of this product per 500 gallons of water to control odor and algae. Re-entry into treated spas/hot tubs is prohibited at levels above 5 ppm due to risk of bodily harm. During extended periods of disuse, add 3 oz. of product daily per 1000 gallons of water to maintain a 3 ppm chlorine concentration.

**HUBBARD AND IMMERSION TANKS**-(Not Approved for Use in California) Add 5 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 5 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.

**HYDROTHERAPY TANKS**- Add 1 oz. of this product per 1000 gallons of water to obtain a chlorine 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 ensure that the available chlorine does not drop below 50 ppm. Prepare a 100 ppm sanitizing solution by thoroughly mixing 1 oz. of this product with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 2 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 oz. of this product with 10 gallons of water. If no test kit is available, prepare a sanitizing solution by thoroughly mixing 2 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 2 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.

**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 2 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.

**SPRAY METHOD** – Pre-clean all surfaces after use. Use a 200 ppm available chlorine solution to control bacteria, mold or fungi and a 600 ppm solution to control bacteriophage. Prepare a 200 ppm sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 2 oz. product with 10 gallons of water. Prepare a 600 ppm solution by

thoroughly mixing the product in a ratio of 6 oz. product with 10 gallons of water. Use spray equipment, which can resist hypochlorite solutions. Always empty and rinses spray equipment with potable water after use. Thoroughly spray all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Prior to using equipment, rinse all surfaces treated with a 600 ppm solution with a 200 ppm solution.

### **RESTAURANTS, INSTITUTIONS, AND OTHER FOOD SERVING ESTABLISHMENTS***(Not for use in CA)*

1. Scrape and pre-wash utensils, dishes, and glasses to remove gross soil
2. Wash with recommended detergent
3. Rinse with clean (potable) water
4. Sanitize in a solution containing 4 oz of product for each 10 gallons of tap water used (200 ppm available chlorine). Immerse all utensils for at least 2 minutes or contact time specified by governing sanitary code.
5. Place sanitized utensils on a rack or drainboard to air dry

**Note:** NO POTABLE WATER RINSING of equipment is required. Sanitizers used in automated systems may be used for general cleaning but may not be re-used for sanitization purposes. Test sanitizer frequently during operation with a chlorine test kit or ORP meter to ensure that solution does not drop below 50 ppm available chlorine. If not test kit is available or if available chlorine has dropped below 50 ppm during sanitizing, either discard the sanitizer solution or add sufficient of product to reestablish a 200 ppm available chlorine sanitizer strength.

### **SANITIZATION OF POROUS FOOD CONTACT SURFACES**

**RINSE METHOD** - Prepare a 600 ppm solution by thoroughly mixing 6 oz. of this product with 10 gallons of water. Clean surfaces in the normal manner. Rinse all surfaces thoroughly with the 600 ppm solution, maintaining contact for at least 2 minutes. Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 oz. of this product with 10 gallons of

water. Prior to using equipment, rinse all surfaces with a 200 ppm available chlorine solution. Do not rinse and do not soak equipment overnight.

**IMMERSION METHOD** - Prepare a 600 ppm solution by thoroughly mixing, in an immersion tank, 6 oz. of this product with 10 gallons of water. Clean equipment in the normal manner. Immerse equipment in the 600 ppm solution for at least 2 minutes. Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 oz. of this product with 10 gallons of water. Prior to using equipment, immerse all surfaces in a 200 ppm available chlorine solution. Do not rinse and do not soak equipment overnight.

**SPRAY METHOD** – Pre-clean all surfaces after use. Prepare a 600 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 6 oz. 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. Thoroughly spray all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours. Prior to using equipment, rinse all surfaces with a 200 ppm available chlorine solution. Prepare a 200 ppm sanitizing solution by thoroughly mixing 2 oz. of this product with 10 gallons of water.

### **MEAT, BEVERAGE AND FOOD PROCESSING PLANTS***(Not for use in CA)*

Clean and potable water rinse cutting boards, plastic baskets, and rubber gaskets. Sanitize by preparing a solution of 600 ppm available chlorine sanitizer by mixing 12 oz of product in 10 gallons of water. Rinse, flood, immerse, wipe or spray porous surfaces until thoroughly wet. Maintain contact with the sanitizer for at least 2 minutes. Drain excess sanitizer. Prior to reusing treated equipment, rinse in a fresh sanitizer solution containing 200 ppm available chlorine by mixing 4 oz of product in 10 gallons of water. Drain excess sanitizer. Do not rinse and do not soak equipment overnight. Sanitizers used in automated systems may be used for general cleaning but may not be re-used for sanitization purposes.



## **SANITIZATION OF CONVEYOR OF MEAT, POULTRY, SEAFOOD, FRUITS, AND VEGETABLES***(Not for use in CA)*

For use in the static or continuous washing, rinsing, and sanitizing of conveyor equipment, peelers, collators, slicers, saws, and etc.

1. Remove all products from equipment if during treatment the sanitizer will directly contact the items
2. Prepare 200 ppm solutions of this product (4 oz per 10 gallons)
3. Apply sanitizer solution to the return portion of the conveyor or the equipment using a coarse spray, other means of wetting the surfaces. Treat for at least one (1) minute.
4. Control the volume of solution so as to permit maximum drainage and to prevent puddles. The conveyor may still be damp when food contact occurs.
5. Allow equipment to drain adequately before reusing; a dry surface is not required.

## **TREATMENT OF POULTRY PROCESS WATER-FOLLOW GUIDELINES OF LOCAL WATER AUTHORITY FOR WATER POTABILITY TREATMENT***(Not for use in CA)*

**CONTINUOUS FEED:** using an automatic metering device, continuously feed this product into the water to obtain and or maintain a level of 5-20 ppm available chlorine (1.2 oz product per 100 gal. water, to 4.oz product per 100 gals.) Confirm target chlorine level with either a chlorine test kit or an automatic testing device or ORP meter. When the available chlorine level reaches 10 ppm, notify the USDA plant inspector.

**INTERMITTENT FEED:** Start up by adding 2 oz of product per 1000 gals of water for each 1 ppm of available chlorine needed. For subsequent doses, check chlorine level with a chlorine test kit or an ORP meter. Do not pour this product directly on poultry product in the water.

## **SANITIZATION OF NONPOROUS NON-FOOD CONTACT SURFACES**

**RINSE METHOD** - Prepare a sanitizing solution by thoroughly mixing 2 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 a immersion tank, 2 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.

**SPRAY METHOD**– Pre-clean all surfaces after use. Prepare a 200 ppm available chlorine sanitizing solution of sufficient size by thoroughly mixing the product in a ratio of 2 oz. product with 10 gallons of water. Use spray equipment, which can resist hypochlorite solutions. Prior to using equipment, thoroughly spray all surfaces until wet, allowing excess sanitizer to drain. Vacate area for at least 2 hours.

## **DISINFECTION OF NONPOROUS NON-FOOD CONTACT SURFACES**

**RINSE METHOD** - Prepare a disinfecting solution by thoroughly mixing 6 oz. of this product with 10 gallons of water to provide approximately 600 ppm available chlorine by weight. Clean equipment surfaces in the normal manner. Prior to use, rinse all surfaces thoroughly with the disinfecting solution, maintaining contact with the solution for at least 10 minutes. Do not rinse equipment with water after treatment and do not soak equipment overnight.

**IMMERSION METHOD** - Prepare a disinfecting solution by thoroughly mixing, in an immersion tank, 6 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 disinfecting solution for at least 10 minutes and allow the sanitizer to drain. Do not rinse equipment with water after treatment.

### **SANITIZATION OF POROUS NON-FOOD CONTACT SURFACES**

**RINSE METHOD** - Prepare a sanitizing solution by thoroughly mixing 6 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.

**IMMERSION METHOD** - Prepare a sanitizing solution by thoroughly mixing, in an immersion tank, 6 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.

**SPRAYMETHOD** - After cleaning, sanitize non-food contact surfaces with 600 ppm available chlorine by thoroughly mixing the product in a ratio of 6 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, to ensure that 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 minutes contact time. A reasonable average of residual chlorine is 0.5 ppm after 15 minutes contact time.

**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 10 to 100 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 3 oz. of this product with 100 gallons of water.

**FILTER BEDS - SLIME CONTROL:** Remove filter from service, drain to a depth of 1 ft. above filter sand, and add 80 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 draining and backwashing filter.

### **DISINFECTION OF DRINKING WATER (EMERGENCY/PUBLIC/INDIVIDUAL SYSTEMS)**

**PUBLIC SYSTEMS:** Mix a ratio of 1 oz. of this product to 100 gallons of water. Begin feeding this solution with a hypo-chlorinator until a free available chlorine residual of at least 0.2 ppm and no more than 0.6 ppm is attained throughout the distribution system. Check water frequently with a chlorine test kit. Bacteriological sampling must be conducted at a frequency no less than that prescribed by the National Primary Drinking Water Regulations. Contact your local Health Department for further details.

**INDIVIDUAL SYSTEMS: - DUG WELLS** Upon completion of the casing (lining) wash the interior of the casing (lining) with a 100 ppm available chlorine solution using a stiff brush. This solution can be made by thoroughly mixing 1 oz. of this product into 10 gallons of water. After covering the well, pour the sanitizing solution into the well through both the pipe sleeve opening and the pipeline. Wash the exterior of the pump cylinder also with the sanitizing solution. Start pump and pump water until strong odor of chlorine in water is noted. Stop pump and wait at least 24 hours. After 24 hours, flush well until all traces of chlorine have been removed from the water. Contact your local Health Department for further details.

**INDIVIDUAL WATER SYSTEMS: DRILLED, DRIVEN & BORED WELLS** - Run pump until water is as free from turbidity as possible. Pour a 100 ppm available chlorine sanitizing solution into the well. This solution can be made by thoroughly mixing 1 oz. of this product into 10 gallons of water. Add 5 to 10 gallons of clean, chlorinated water to the well in order to force the sanitizer into the rock formation. Wash the exterior of pump cylinder with the sanitizer. Drop pipeline into

well, start pump and pump water until strong odor of chlorine in water is noted. Stop pump and wait at least 24 hours. After 24 hours, flush well until all traces of chlorine have been removed from the water. Deep wells with high water levels may necessitate the use of special methods for introduction of the sanitizer into the well. Consult your local Health Department for further details.

**INDIVIDUAL WATER SYSTEMS: FLOWING ARTESIAN WELLS** - Artesian wells generally do not require disinfection. If analyses indicate persistent contamination, the well should be disinfected. Consult your local Health Department for further details.

**EMERGENCY DISINFECTION** - When boiling of water for 1 minute is not practical, water can be made potable by using this product. Prior to addition of the sanitizer, remove all suspended material by filtration or by allowing it to settle to the bottom. Decant the clarified, contaminated water to a clean container and add 1 drop of this product to 20 gallons of water. Allow the treated water to stand for 30 minutes. Properly treated water should have a slight chlorine odor, if not, repeat dosage and allow the water to stand an additional 15 minutes. The treated water can then be made palatable by pouring it between clean containers for several times.

### **PUBLIC WATER SYSTEMS**

**RESERVOIRS- ALGAE CONTROL:** Hypo-chlorinate streams feeding the reservoir. Suitable feeding points should be selected on each stream at least 50 yards upstream from the points of entry into the reservoir.

**MAINS** - Thoroughly flush section to be sanitized by discharging from hydrants. Permit a water flow of at least 2.5 feet per minute to continue under pressure while injecting this product by means of a hypo-chlorinator. Stop waterflow when a chlorine residual test of 50 ppm is obtained at the low pressured of the new main section after a 24 hour

retention time. When chlorination is completed, the system must be flushed free of all heavily chlorinated water.

**NEW TANKS, BASINS, ETC.** - Remove all physical soil from surfaces. Place 20 oz. of this product for each 5 cubic feet of working capacity (500 ppm available chlorine). Fill to working capacity and allow to stand for at least 4 hours. Drain and flush with potable water and return to service.

**NEW FILTER SAND**- Apply 80 oz. of this product for each 150 to 200 cubic feet of sand. The action of the product dissolving as the water passes through the bed will aid in sanitizing the new sand.

**NEW WELLS** - Flush the casing with a 50 ppm available chlorine solution of water containing 5 oz. of this product for each 100 gallons of water. The solution should be pumped or fed by gravity into the well after thorough mixing with agitation. The well should stand for several hours or overnight under chlorination. It may then be pumped until a representative raw water sample is obtained. Bacterial examination of the water will indicate whether further treatment is necessary.

**EXISTING EQUIPMENT** - Remove equipment from service, thoroughly clean surfaces of all physical soil. Sanitize by placing 21 oz. of this product for each 5 cubic feet capacity (approximately 500 ppm available chlorine). Fill to working capacity and let stand at least 4 hours. Drain and place in service. If the previous treatment is not practical, surfaces may be sprayed with a solution containing 5 oz. of this product for each 5 gallons of water (approximately 1000 ppm available chlorine). After drying, flush with water and return to service.

### **EMERGENCY DISINFECTION AFTER FLOODS**

**WELLS** - Thoroughly flush contaminated casing with a 500 ppm available chlorine solution. Prepare this solution by mixing 5 oz. of this product with 10 gallons of water. Backwash the well to increase yield and reduce turbidity, adding sufficient chlorinating solution to the backwash to

produce a 10 ppm available chlorine residual, as determined by a chlorine test kit. After the turbidity has been reduced and the casing has been treated, add sufficient chlorinating solution to produce a 50 ppm available chlorine residual. Agitate the well water for several hours and take a representative water sample. Retreat well if water samples are biologically unacceptable.

**RESERVOIRS** - In case of contamination by overflowing streams, establish hypo- chlorinating stations upstream of the reservoir. Chlorinate the inlet water until the entire reservoir obtains a 0.2 ppm available chlorine residual, as determined by a suitable chlorine test kit. In case of contamination from surface drainage, apply sufficient product directly to the reservoir to obtain a 0.2 ppm available chlorine residual in all parts of the reservoir.

**BASINS, TANKS, FLUMES, ETC.** - Thoroughly clean all equipment, then apply 20 oz. of product per 5 cu. ft. of water to obtain 500 ppm available chlorine, as determined by a suitable test kit. After 24 hours drain, flush, and return to service. If the previous method is not suitable, spray or flush the equipment with a solution containing 5 oz. of this product for each 5 gallons of water (1000 ppm available chlorine). Allow to stand for 2 to 4 hours, flush and return to service.

**FILTERS**- When the sand filter needs replacement, apply 80 oz. of this product for each 150 to 200 cubic feet of sand. When the filter is severely contaminated, additional product should be distributed over the surface at the rate of 80 oz. per 20 sq. ft.. Water should stand at a depth of 1 foot above the surface of the filter bed for 4 to 24 hours. When filter beds can be back washed of mud and silt, apply 80 oz. of this product per each 50 sq. ft., allowing the water to stand at a depth of 1 foot above the filter sand. After 30 minutes, drain water to the level of the filter. After 4 to 6 hours drain, and proceed with normal backwashing.

**DISTRIBUTION SYSTEM**- Flush repaired or replaced section with water. Establish a hypo- chlorinating station and apply sufficient product until a consistent available chlorine residual of at least 10 ppm remains after a 24 hour retention time. Use a chlorine test kit.

## **EMERGENCY DISINFECTION AFTER FIRES**

**CROSS CONNECTIONS OR EMERGENCY CONNECTIONS-** Hypochlorination or gravity feed equipment should be set up near the intake of the untreated water supply. Apply sufficient product to give a chlorine residual of at least 0.1 to 0.2 ppm at the point where the untreated supply enters the regular distribution system. Use a chlorine test kit.

## **EMERGENCY DISINFECTION AFTER DROUGHTS**

**SUPPLEMENTARY WATER SUPPLIES** - Gravity or mechanical hypochlorite feeders should be set up on a supplementary line to dose the water to a minimum chlorine residual of 0.2 ppm after a 20 minute contact time. Use a chlorine test kit.

**WATER SHIPPED IN BY TANKS, TANK CARS, TRUCKS, ETC.** - Thoroughly clean all containers and equipment. Spray a 500 ppm available chlorine solution and rinse with potable water after 5 minutes. This solution is made by mixing 5 oz. of this product for each 10 gallons of water. During the filling of the containers, dose with sufficient amounts of this product to provide at least a 0.2 ppm chlorine residual. Use a chlorine test kit.

## **EMERGENCY DISINFECTION AFTER MAIN BREAKS**

**MAINS-** Before assembly of the repaired section, flush out mud and soil. Permit a waterflow of at least 2.5 feet per minute to continue under pressure while injecting this product by means of a hypo-chlorinator. Stop water flow when a chlorine residual test of 50 ppm is obtained at the low pressure end of the new mains section after a 24 hour retention time. When chlorination is completed, the system must be flushed free of all heavily chlorinated water.

## **LAUNDRY SANITIZERS HOUSEHOLD LAUNDRY SANITIZERS**

**IN SOAKING SUDS** - Thoroughly mix 2 oz. of this product to 10 gallons of wash water to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent. Immerse laundry for at least 11 minutes prior starting the wash/rinse cycle.

**IN WASHING SUDS** - Thoroughly mix 2 oz. of this product to 10 gallons of wash water containing clothes to provide 200 ppm available chlorine. Wait 5 minutes, then add soap or detergent and start the wash/rinse cycle.

## **COMMERCIAL LAUNDRY SANITIZERS**

Wet fabrics or clothes should be spun dry prior to sanitization. Thoroughly mix 2 oz. of this product with 10 gallons of water to yield 200 ppm available chlorine. Promptly after mixing the sanitizer, add the solution into the pre-wash prior to washing fabrics/clothes in the regular wash cycle with a good detergent. Test the level of available chlorine if solution has been allowed to stand. Add more of this product if the available chlorine level has dropped below 200 ppm.

## **FARM PREMISES**

Remove all animals, poultry, and feed from premises, vehicles, and enclosures. Remove all litter and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other facilities occupied or traversed by animals or poultry. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. To disinfect, saturate all surfaces with a solution of at least 1000 ppm available chlorine for a period of 10 minutes. A 1000 ppm solution can be made by thoroughly mixing 11 oz. of this product with 10 gallons of water. Immerse all halters, ropes and other types of equipment used in handling and restraining animals or poultry, as well as the cleaned forks, shovels and scrapers used for removing litter and manure. Ventilate buildings, cars, boats and other closed spaces. Do not house livestock or poultry or employ equipment until chlorine odor has been dissipated. All



treated feed racks, mangers, troughs, automatic feeders, fountains and waterers must be rinsed with potable water before reuse.

### OTHER USES

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

**BEE CELLS AND BEE BOARDS** - 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 mix 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.

**FOOD EGG SANITIZATION** - Thoroughly clean all eggs. Thoroughly mix 2 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°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 reused to sanitize eggs.

**FRUIT & VEGETABLE WASHING** - All fruits and vegetables should be cleaned by thoroughly washing in an appropriate cleaning solution. Thoroughly mix 5 fl oz of this product in 200 gallons of water to make a sanitizing solution of 25 ppm available chlorine. After draining the tank, submerge fruits or vegetables for 2 minutes in a second wash tank containing the recirculating sanitizing solution. Spray or rinse fruits or vegetables with the sanitizing solution prior to packaging. Rinse fruits or vegetables with potable water only prior to packaging.

*[Alternate directions can substitute for above:]*

**FRUIT & VEGETABLE WASHING** - All fruits and vegetables should be cleaned by thoroughly washing in an appropriate cleaning solution. Remove all soils and other residues prior to treating with this product. After washing, transfer the fruit and vegetables to a separate tank containing the solution.

Apply this product at the recommended concentration of available chlorine. See the table, "Recommended Levels of Chlorine for Control of Organisms causing decay after Harvest," for recommended usage concentrations for fruits or vegetables being processed. To prepare a 100 ppm available chlorine solution, add 0.75 gallon of this product to 1,000 gallons of water. The use of a calcium carbonate buffer to control pH is recommended. Maintain the pH of the use solution between 6.0 and 8.0 with a dilute solution of food grade acid. For citrus quarantine, use at 200 ppm at pH 6.0 to 7.5. Apply for two minutes using a suitable spray or dip tank treatment.

### AQUACULTURAL USES

**FISH PONDS** - Remove fish from ponds prior to treatment. Thoroughly mix 103 oz. of this product to 10,000 gallons of water to obtain 10 ppm available chlorine. Add more product to the water if the available chlorine level is below 1 ppm after 5 minutes. Return fish to pond after the available chlorine level reaches zero.

**FISH POND EQUIPMENT** - Thoroughly clean all equipment prior to treatment. Thoroughly mix 2 oz. of this product to 10 gallons of water to obtain 200 ppm available chlorine. Porous equipment should soak for one hour.

**MAINE LOBSTER PONDS** (*Not for use in CA*) - Remove lobsters, seaweed etc. from ponds prior to treatment. Drain the pond. Thoroughly mix 620 oz. of this product to 10,000 gallons of water to obtain at least 600 ppm available chlorine. Apply so that all barrows, gates, rock and dam are treated with product. Permit high tide to fill the pond and then close gates. Allow water to stand for

2 to 3 days until the available chlorine level reaches zero. Open gates and allow 2 tidal cycles to flush the pond before returning lobsters to pond.

**CONDITIONING LIVE OYSTERS** - (Not Approved for Use in California) Thoroughly mix 5 oz. of this product to 10,000 gallons of water at 50 to 70°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°F.

**CONTROL OF SCAVENGERS IN FISH HATCHERY PONDS**- Prepare a solution containing 200 ppm of available chlorine by mixing 2 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 0 ppm, as determined by a test kit.

#### **SANITIZATION OF DIALYSIS MACHINES**

Flush equipment thoroughly with water prior to using this product. Thoroughly mix 6 oz. of this product to 10 gallons of water to obtain at least 600 ppm available chlorine. Immediately use this product in the hemodialysate system allowing for a minimum contact time of 15 minutes at 20°C. Drain system of the sanitizing solution and thoroughly rinse with water. Discard and DO NOT reuse the spent sanitizer. Rinsate must be monitored with a suitable test kit to ensure that no available chlorine remains in the system.

This product is recommended for decontaminating single and multipatient hemodialysate systems. This product has been shown to be an effective disinfectant (virucide, fungicide, bactericide, pseudomonicide) when tested by AOAC and EPA test methods. This product may not totally eliminate all vegetative microorganisms in hemodialysate delivery systems due to their construction and/or assembly, but can be relied upon to reduce the number of microorganisms to acceptable levels when used as directed. This product should be used in a disinfectant program that includes bacteriological monitoring of the hemodialysate delivery system. This product is NOT

recommended for use in hemodialysate or reverse osmosis (RO) membranes. Consult the guidelines for hemodialysate systems that are available from the Hepatitis Laboratories, CDC, Phoenix, AZ 85021.

#### **ASPHALT OR PAINTED (SEALED) 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 5 oz. of this product per gallon of water and brush or spray roof or siding. After 30 minutes, rinse by hosing with clean water.

#### **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 18 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.

#### **ARTIFICIAL SAND BEACHES**

To sanitize the sand, spray a 500 ppm available chlorine solution containing 5 oz. of this product per 10 gallons of water at frequent intervals. Small areas can be sprinkled with a watering can.

**PETROLEUM AND OIL FIELD PRODUCTION USES** (*Not for use in CA*)

**WATER FLOODS AND PRODUCED WATER**- JC 9465 should be added to a water flood system at a point of uniform mixing.

Initial Treatment: When the system is noticeably contaminated, add 0.1 gallons to 8.0 gallons of JC 9465 per 1000 gallons of freshly prepared fluid



(10 to 1000 ppm available chlorine) depending on the severity of contamination.

Maintenance Dosage: Maintain a concentration of JC 9465 by adding 0.1 gallons to 8.0 gallons of JC 9465 per 1000 gallons of additional fluid (10 ppm to 1000 ppm available chlorine), or as needed, depending on the severity of contamination.

**PACKER FLUIDS-** JC 9465 should be added to a packer fluid at a point of uniform mixing such as a circulating hold tank. Add JC 9465 (0.1 gallons to 8.0 gallons) per 1000 gallons of freshly prepared fluid (10 ppm to 1000 ppm available chlorine) depending on the severity of contamination. Seal the treated packer fluid in the wall between the casing and production

**HYDROTESTING-** Water used to hydrotest pipeline or vessels should contain JC 9465 at 0.1 gallons to 8.0 gallons per 1000 gallons water (10 ppm to 1000 ppm available chlorine), depending on water quality and length of time the equipment will remain idle.

**PIPELINE PIGGING AND SCRAPING OPERATIONS-** Add JC 9465 to a slug of water immediately following the scraper (ideally this water volume can be kept to a minimum and contained between the scraper and a trailing pig). Sufficient JC 9465 should be added to produce a concentration of 0.2 gallons to 20 gallons per 100 gallons of water (250 ppm to 25000 ppm available chlorine), depending on the length of the pipeline and the severity of biofouling.

## WARRANTY STATEMENT

**Jenfitch, Inc. warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Jenfitch, Inc. To the extent consistent with applicable law, Jenfitch, Inc. makes no other express or implied warranties of fitness or of merchantability or any other express or implied warranties. To the extent consistent with applicable law, in no event shall Jenfitch, Inc. be liable for consequential, special, or indirect damages resulting from the use or handling of this product. To the extent consistent with applicable law, the exclusive remedy of the user or Buyer and the exclusive liability of Jenfitch, Inc.; for any and all claims, losses, injuries, or damages (including claims based on breach of warranty or contract, negligence, tort or strict liability), whether from failure to perform and resulting from the use or handling of this product, shall be the return of the purchase price of the product, or at the election of Jenfitch, Inc. the replacement of the product.**

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