5382-43

04/16/2013

1/10

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

April 16, 2013

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Kindra Levels
Product Stewardship Specialist
Occidental Chemical Corporation
P.O. Box 809050 - Attn: Kindra Levels
Dallas, Texas 75380-9050

Subject: Technical Sodium Chlorite Solution 31.25
EPA Reg.#: 5382-43
Notification Date: April 3, 2013
Receipt Date: April 9, 2013

Dear Ms. Levels:

This acknowledges the receipt of your notification, submitted under the provision of PR Notice 98-10 and FIFRA section 3(c)7(a).

Proposed Notification:
To add the NSF logo to the "Technical Sodium Chlorite Solution 31.25" product label (EPA Reg# 5382-43). Label dated April 3, 2013 (pin punch 04/09/13).

General Comment:
Based on the review of the materials submitted, the above noted NSF logo addition to the label is **acceptable**.

This notification and this letter have been inserted in your file for future reference.

If you have further question on this letter, please contact David Liem by email at liem.david@epa.gov or call at 703-305-1284.

Sincerely,

Monisha Harris
Product Manager (32)
Regulatory Management Branch II
Antimicrobials Division (7510P)

2/10

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060 Print Form

EPA

United States Environmental Protection Agency Washington, DC 20460

[ ] Registration [ ] Amendment [x] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
Occidental Chemical Corporation / 5382-43	Monisha Harris	[x] None [ ] Restricted
4. Company/Product (Name)	**PM#**	
Occidental Chemical Corporation / Technical Sodium Chlorite Solution 31.25	32	

5. Name and Address of Applicant *(Include ZIP Code)*

Occidental Chemical Corporation
P.O. Box 809050 - Attn: Kindra Levels
Dallas, TX. 75380-9050

[ ] *Check if this is a new address*

6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. N/A - Not Applicable

Product Name N/A - Not Applicable

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [x] Notification - Explain below.
- [ ] Final printed labels in response to Agency letter dated _____
- [ ] "Me Too" Application.
- [ ] Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Approved NSF logo added as per guidance letter by Mr. Frank Sanders of EPA, to Mr. Kenji Yano of NSF. This notification is consistent with the provisions of PR Notices 98-10 and EPA regulations in 40 CFR 152.46, and no other changes have been made to this product' labeling or to its confidential statement of formula (CSF). I understand it is a violation of 18 USC Sec 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes* [ ] No	[ ] Yes [ ] No	[ ] Yes [ ] No	[ ] Metal [ ] Plastic [ ] Glass [ ] Paper [ ] Other (Specify) _____
* *Certification must be submitted*	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[ ] Label [ ] Container		[ ] On Label [ ] On Labeling accompanying product

6. Manner in Which Label is Affixed to Product [ ] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Kindra Levels	Product Stewardship Specialist	972-404-3446

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature	3. Title
Kindra Levels	Product Stewardship Specialist
4. Typed Name	**5. Date**
Kindra Levels	April 3, 2013

Occidental Chemical Corporati *OxyChem.*
A subsidiary of Occidental Petroleum Corporation

5005 LBJ Freew[illegible]uite 2200, Dallas, Texas 75244-6152
P.O. Box 809050, Dallas, Texas 75380-9050
Phone: 972-404-3800

April 3, 2013

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

USPS Certified Mail#: 7012 1010 0002 2591 7167

RE: Notification to add the NSF logo to the Technical Sodium Chlorite Solution 31.25 label – (EPA Reg. No: 5382-43)

Dear Madam or Sir:

Enclosed is the EPA 8570-1 form, marked as a notification submission, being submitted to add the National Sanitation Foundation (NSF) logo to Occidental Chemical Corporation's existing label for Technical Sodium Chlorite Solution 31.25, EPA Reg. No. 5382-43. This notification is being submitted in accordance with PR Notice 98-10.

The following documents have been enclosed in support of this notification:

- Application for Pesticide Registration, EPA Form 8570-1
- One (1) copy of the letter from Mr. Frank Sanders, Director of Antimicrobial Division, to Mr. Kenji Yano of NSF, providing guidance on the use of the NSF logo
- A copy of the approved NSF logos from the NSF website: http://www.nsf.org/business/water_distribution/download_marks.asp?program=WaterDistributionSys
- One (1) copy of the proposed modification of the Technical Sodium Chlorite Solution 31.25 label text that bears the actual NSF logo and any associated language
- One (1) copy of the proposed modification of the final Technical Sodium Chlorite Solution 31.25 label that bears the actual NSF logo and any associated language

As stated on the 8570-1 form, the only change made to the label was the addition of the NSF logo.

Should you have any questions regarding this notification, please give me a call at (972)404-3446, or you may email me at Kindra_Levels@oxy.com.

Sincerely,

Kindra Levels – Product Stewardship Specialist
Occidental Chemical Corporation
Phone: 972-404-3446, Fax: 972-404-3219
Email: Kindra_Levels@oxy.com

Enclosures

{ All text in brackets [xxx] is optional and may or may not be included on a final label}
{All text in braces {xxx} is administrative and will not appear on a final label}

TECHNICAL SODIUM CHLORITE SOLUTION 31.25
(25% Active Sodium Chlorite)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

DANGER. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Irritating to nose and throat. Do not get in eyes, on skin or on clothing. Wear protective eyewear (splashproof goggles). Wear protective clothing and rubber gloves when handling this product. Avoid breathing mists or fumes. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse to avoid fire.

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 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 the 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.

CHEMICAL HAZARDS

Dry sodium chlorite is a strong oxidizing agent. This product becomes a fire or explosive hazard if allowed to dry. Mix only into water. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide a poisonous, explosive gas), and possible fire and explosion. Do not contaminate with garbage, dirt, organic matter, household products, chemicals, soap products, paint products, solvents, acids, vinegar, beverages, oils, pine oil, dirty rags, or any other foreign matter.

NOTIFICATION
Date Reviewed: 4/16/2013
Reviewed By: D. Liem

DIRECTIONS FOR USE

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

Directions for Controlling the Growth of Algae in Recirculating Cooling Water Towers

1. Clean badly fouled systems before starting treatment. **2.** When algae are visible, add an initial dosage of 8.4 fluid ounces of Sodium Chlorite per 1,000 gals. of water in the system. Repeat if necessary until control is evident. **3.** Where algae control is evident, use a subsequent dose of 4.2 fluid ounces of Sodium Chlorite solution per 1,000 gals. of water in the system twice a week or as needed to maintain control. **4.** Add Sodium Chlorite directly to the cooling tower drip pan (cold water basin) near the inlet to the recirculating pump.

Directions for Use in the Mechanical or Electrolytic Generation of Chlorine Dioxide as a Disinfectant, or for Microorganism or Mollusk Control and as a Chemical Oxidant in Aquatic Systems.

Feed requirements: Feed rates of Technical Sodium Chlorite Solution 31.25 will depend on the severity of contamination and the degree of control desired. The exact dosage will depend on the size of the system and residual necessary for effective control. Depending on the generator type, Technical Sodium Chlorite Solution 31.25 may be diluted at the point of use to prepare a 3% to 25% active aqueous solution for use in chlorine dioxide generators.

5/10

Column 2

TECHNICAL SODIUM CHLORITE SOLUTION 31.25
EPA Reg. No. 5382-43

ACTIVE INGREDIENT: Sodium Chlorite* 25%
OTHER INGREDIENTS: 75%
*AVAILABLE CHLORINE 39%

CONTAINS 2.58 LBS. OF SODIUM CHLORITE
PER GALLON AT 70°F

KEEP OUT OF REACH OF CHILDREN **DANGER** **FIRST AID**	
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. • Call a poison control center or doctor immediately for 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 treatment advice if burning or irritation of the skin persists.
If swallowed:	• Have person drink a glass of water immediately if able to swallow. • Call a poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled:	• Move person to fresh air and monitor for respiratory distress. • If cough or difficulty in breathing develops, consult a physician immediately. • If person is not breathing, call 911 or an ambulance, then give artificial respiration. • Call a poison control center or doctor for further treatment advice.
For emergency information call: 800-733-3665 (24 hours) Have the product container or label with you when calling a poison control center or doctor or going to treatment	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

4/16/2013
D Lienau

Manufactured By:

Occidental Chemical Corporation
P.O.Box 809050
Dallas, TX. 75380-9050

24-Hour Emergency No: 1-800-733-3665
CHEMTREC Emergency No: 1-800-424-9300

EPA Reg. No. 5382-43

EPA Est. 5382-KS-1
EPA Est. 70547-IL-1

_____Gals. Net (_____l)

Some examples of industrial applications of chlorine dioxide include:

- Potable water disinfection and removal of sulfide.
- Control of bacterial slime and algae and mollusks in industrial recirculating and one-pass cooling systems.
- Biocontrol in food processing flumes, water-using equipment, cooling water, and recycled waters.
- Disinfection of sewage and plant wastes.
- Destruction of phenolics, simple cyanides and sulfides by chemical oxidation.
- Bacterial slime control in white water paper mill systems.
- Bacterial control in oil well and petroleum systems.

See product bulletins (or Technical Data Sheets) for specific application instructions. Your Occidental Chemical Corporation representative can guide you in the application techniques.

Method of feed: Large amounts of chlorine dioxide can be generated by several common methods, including:

1. The chlorine method which utilizes a Sodium Chlorite solution and chlorine gas, or
2. The hypochlorite method which utilizes a Sodium Chlorite solution, a hypochlorite solution, and an acid, or
3. The Acid-chlorite method which utilizes a Sodium Chlorite solution and an acid, or
4. The electrolytic method which utilizes a Sodium Chlorite solution, with sodium chloride added as needed.

Your Occidental Chemical Corporation representative can guide you in the selection, installation and operation for feed systems. Consult product bulletin and also the instructions on the chlorine dioxide generation system before using Technical Sodium Chlorite Solution 31.25. User is responsible for compliance with applicable Federal, state and local laws regarding proper use and disposal of the chlorine dioxide generated.

Directions for Use in Controlling Microbial Population in Poultry Processing Water
Chlorine dioxide generated from Technical Sodium Chlorite Solution 31.25 may be used as an antimicrobial agent in water used in poultry processing, provided that the residual concentration of chlorine dioxide does not exceed 3 ppm, as determined by an appropriate method in accordance with 21CFR§173.300. For treatment of poultry chill water, apply Technical Sodium Chlorite Solution 31.25 as necessary through a chlorine dioxide generation system to maintain a residual concentration of up to 3 parts per million (ppm) chlorine dioxide in the chiller water.

Food Plant Process Water Treatment
Chlorine dioxide generated from sodium chlorite is effective for use in controlling microbiological growth in flume water and other food processing water systems such as chill water systems and hydrocoolers. The required dosages will vary with process conditions and the degree of contamination present. Depending on the requirements of the specific water system, sodium chlorite should be applied continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.25 and 5.0 ppm. Water, containing up to 3 ppm residual chlorine dioxide may be used for washing fruits and vegetables that are not raw agricultural commodities in accordance with 21CFR§173.300. Treatment of the fruits and vegetables with chlorine dioxide must be followed by a potable water rinse, or by blanching, cooking or canning.

Aqueous Disinfection Systems for CIP Cleaning: If the concentration of chlorine dioxide generated from Technical Sodium Chlorite Solution 31.25 exceeds 5.0 ppm, a potable water rinse should follow treatment. Care should be taken to ensure the biological and chemical quality of the potable water.

Industrial Cooling Water Treatment
For control of bacterial slime and algae in industrial recirculating and one-pass cooling systems, the required dosages will vary depending on the exact application and the degree of contamination present. The required chlorine dioxide residual concentrations range between 0.1 and 5.0 ppm. Chlorine dioxide may be applied either continuously or intermittently. The typical chlorine dioxide residual concentration range is 0.1 - 1.0 ppm for continuous doses, and 0.1 - 5.0 ppm for intermittent doses. The minimum acceptable residual concentration of chlorine dioxide is 0.1 ppm for a minimum one minute contact time.

Potable Water Treatment
Chlorine dioxide (ClO_2) is used as both an oxidant and a disinfectant in drinking water treatment. The required dosages will vary with source water conditions and the degree of contamination present. For most municipal and public potable water systems, a chlorine dioxide residual concentration of up to 2 ppm is sufficient to provide adequate disinfection. Residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.

Bacterial Slime Control in Paper Mills
Chlorine dioxide generated from sodium chlorite is effective for use in controlling microbiological growth in white water paper mill systems. The required dosages will vary with the degree of microbiological and process contamination present. Depending on the specific requirements of the system, sodium chlorite should be applied continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.1 and 5.0 ppm. Intermittent treatments should be repeated as often as necessary to maintain control.

Mollusk Control in Water Systems
Chlorine dioxide generated from sodium chlorite may be used for mollusk control in commercial and industrial recirculating and one-pass cooling water systems. The required dosages will vary with the system type, system conditions, the degree of water contamination present and the desired level of control. Depending on the extent of the infestation, sodium chlorite may be applied either continuously or intermittently through a chlorine dioxide generating system to achieve the necessary chlorine dioxide residual concentration.

Veliger Control: Maintain a continuous chlorine dioxide residual of 0.1 - 0.5 ppm.

Intermittent Dose: Apply chlorine dioxide to obtain a chlorine dioxide residual concentration of 0.2 - 25 ppm. Repeat as necessary to maintain control.

Continuous Dose: Maintain a chlorine dioxide residual concentration of up to 2 ppm.

Bacterial Control In Oil Wells And Petroleum Systems
Chlorine dioxide is effective in the remediation of bacterial and sulfide contamination commonly found in oilfield production, injection and disposal fluids. The required dosages will vary with process conditions. Sodium chlorite may be applied either continuously or intermittently through a chlorine dioxide generating system to oil well production water as it is separated from the oil, and before it is re-injected into the well. For continuous feeds, chlorine dioxide may be applied at dosages slightly higher than sulfide's oxidative demand as determined by a demand study. For intermittent treatment, chlorine dioxide should be applied at a shock dosage of 200 - 3000 ppm.

Wastewater Treatment
Chlorine dioxide (ClO_2) is effective as both a disinfectant and an oxidant in wastewater treatment. The required dosages will vary with water conditions and the degree of contamination present. For most municipal and other wastewater systems, a chlorine dioxide residual concentration of up to 5 ppm is sufficient to provide adequate disinfection.

For sulfide odor control, between pH 5-9, a minimum of 5.2 ppm (wt) of chlorine dioxide should be applied to oxidize 1 ppmof sulfide (measured as sulfide ion). For phenol destruction, at pH less than 8, 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol; at pH greater than 10, 3.3 ppm chlorine dioxide will oxidize 1 ppm phenol.

STORAGE AND DISPOSAL

STORAGE: Do not contaminate water, food, or feed by storage or disposal. Keep product in tightly closed container when not in use. Don't drop, roll or skid drum. Keep upright. Always replace cover. Store in a cool, dry well-ventilated area away from heat or open flame.
EMERGENCY HANDLING: In case of contamination or decomposition, do not reseal container. If possible, isolate container in open and well ventilated area. Flood with large volumes of water. If fire occurs, extinguish fire by applying large quantities of water. Any unopened drums near the fire should be cooled by spraying with water.
PESTICIDE DISPOSAL: Pesticide wastes are acutely 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.

{Text for non-refillable liquid containers that are 5 gallons or smaller}
CONTAINER DISPOSAL: Nonrefillable Container.
Do not reuse or refill this container. Offer for recycling if available. Offer for reconditioning if appropriate. Triple Rinse or Pressure Rinse container promptly after emptying.
Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.
Pressure Rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds, after the flow begins to drip.

{Text for non-refillable liquid containers that are larger than 5 gallons}
CONTAINER DISPOSAL: Nonrefillable Container.
Do not reuse or refill this container. Offer for recycling if available. Offer for reconditioning if appropriate. Triple Rinse or Pressure Rinse container promptly after emptying.
Triple Rinse as follows: Empty remaining contents into application equipment or a mix tank. 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.
Pressure Rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse about 40 PSI for at least 30 seconds. Drain for 10 seconds, after the flow begins to drip.

{Text for refillable liquid containers}

CONTAINER DISPOSAL: Refillable Container.
Refill this container with [Technical Sodium Chlorite Solution 31.25] [Supplemental distributor brand name] only. Do not reuse this container for any other purpose.
Cleaning or pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.
To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.
To pressure rinse the container before final disposal, empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds, after the flow begins to drip.

for Non-refillable Containers that are 5-gallons or smaller

NOTIFICATION
Date Received: 4/16/13
Reviewed By: DLT 2m

TECHNICAL SODIUM CHLORITE SOLUTION 31.25

(25% Active Sodium Chlorite)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

DANGER. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Irritating to nose and throat. Do not get in eyes, on skin or on clothing. Wear protective eyewear (splashproof goggles). Wear protective clothing and rubber gloves when handling this product. Avoid breathing mists or fumes. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse to avoid fire.

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 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 the 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.

CHEMICAL HAZARDS

Dry sodium chlorite is a strong oxidizing agent. This product becomes a fire or explosive hazard if allowed to dry. Mix only into water. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide a poisonous, explosive gas), and possible fire and explosion. Do not contaminate with garbage, dirt, organic matter, household products, chemicals, soap products, paint products, solvents, acids, vinegar, beverages, oils, pine oil, dirty rags, or any other foreign matter.

DIRECTIONS FOR USE

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

Directions for Controlling the Growth of Algae in Recirculating Cooling Water Towers

1. Clean badly fouled systems before starting treatment. 2. When algae are visible, add an initial dose of 8.4 fluid ounces of Sodium Chlorite per 1,000 gals. of water in the system. Repeat if necessary until control is evident. 3. Where algae control is evident, use a subsequent dose of 4.2 fluid ounces of Sodium Chlorite solution per 1,000 gals. of water in the system twice a week or as needed to maintain control. 4. Add Sodium Chlorite directly to the cooling tower drip pan (cold water basin) near the inlet to the recirculating pump.

Directions for Use in the Mechanical or Electrolytic Generation of Chlorine Dioxide as a Disinfectant, or for Microorganism or Mollusk Control and as a Chemical Oxidant in Aquatic Systems.

Feed requirements: Feed rates of Technical Sodium Chlorite Solution 31.25 will depend on the severity of contamination and the degree of control desired. The exact dosage will depend on the size of the system and residual necessary for effective control. Depending on the generator type, Technical Sodium Chlorite Solution 31.25 may be diluted at the point of use to prepare a 3% to 25% active aqueous solution for use in chlorine dioxide generators.

ACTIVE INGREDIENT: Sodium Chlorite*	25%
OTHER INGREDIENTS:	75%
*AVAILABLE CHLORINE	39%

CONTAINS 2.58 LBS. OF SODIUM CHLORITE PER GALLON AT 70°F

KEEP OUT OF REACH OF CHILDREN

DANGER

FIRST AID

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 immediately for 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 treatment advice if burning or irritation of the skin persists.
If swallowed:	• Have person drink a glass of water immediately if able to swallow. • Call a poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled:	• Move person to fresh air and monitor for respiratory distress. • If cough or difficulty in breathing develops, consult a physician immediately. • If person is not breathing, call 911 or an ambulance, then give artificial respiration. • Call a poison control center or doctor for further treatment advice.

For emergency information call: 800-733-3665 (24 hours)
Have the product container or label with you when calling a poison control center or doctor or going to treatment.

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

Manufactured By:

Occidental Chemical Corporation
P. O. Box 809050
Dallas, TX 75380-9050

24-Hour Emergency No: 1-800-733-3665
CHEMTREC Emergency No: 1-800-424-9300

EPA Reg. No. 5382-43

EPA Est. 5382-KS-1
EPA Est. 70547-IL-1

_____ Gals. Net (_____ l)

Some examples of industrial applications of chlorine dioxide include:

- Potable water disinfection and removal of sulfide.
- Control of bacterial slime and algae and mollusks in industrial recirculating and one-pass cooling systems.
- Biocontrol in food processing flumes, water-using equipment, cooling water, and recycled waters.
- Disinfection of sewage and plant wastes.
- Destruction of phenolics, simple cyanides and sulfides by chemical oxidation.
- Bacterial slime control in white water paper mill systems.
- Bacterial control in oil well and petroleum systems.

See product bulletins (or Technical Data Sheets) for specific application instructions. Your Occidental Chemical Corporation representative can guide you in the application techniques.

Method of feed: Large amounts of chlorine dioxide can be generated by several common methods, including:

1. The chlorine method which utilizes a Sodium Chlorite solution and chlorine gas, or
2. The hypochlorite method which utilizes a Sodium Chlorite solution, a hypochlorite solution, and an acid, or
3. The Acid-chlorite method which utilizes a Sodium Chlorite solution and an acid, or
4. The electrolytic method which utilizes a Sodium Chlorite solution, with sodium chloride added as needed.

Your Occidental Chemical Corporation representative can guide you in the selection, installation and operation for feed systems. Consult product bulletin and also the instructions on the chlorine dioxide generation system before using Technical Sodium Chlorite Solution 31.25.

User is responsible for compliance with applicable Federal, state and local laws regarding proper use and disposal of the chlorine dioxide generated.

Directions for Use in Controlling Microbial Population in Poultry Processing Water

Chlorine dioxide generated from Technical Sodium Chlorite Solution 31.25 may be used as an antimicrobial agent in water used in poultry processing, provided that the residual concentration of chlorine dioxide does not exceed 3 ppm, as determined by an appropriate method in accordance with 21CFR§173.300.

For treatment of poultry chill water, apply Technical Sodium Chlorite Solution 31.25 as necessary through a chlorine dioxide generation system to maintain a residual concentration of up to 3 parts per million (ppm) chlorine dioxide in the chiller water.

Food Plant Process Water Treatment

Chlorine dioxide generated from sodium chlorite is effective for use in controlling microbiological growth in flume water and other food processing water systems such as chill water systems and hydrocoolers. The required dosages will vary with process conditions and the degree of contamination present. Depending on the requirements of the specific water system, sodium chlorite should be applied continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.25 and 5.0 ppm.

Water, containing up to 3 ppm residual chlorine dioxide may be used for washing fruits and vegetables that are not raw agricultural commodities in accordance with 21CFR§173.300. Treatment of the fruits and vegetables with chlorine dioxide must be followed by a potable water rinse, or by blanching, cooking or canning.

Aqueous Disinfection Systems for CIP Cleaning: If the concentration of chlorine dioxide generated from Technical Sodium Chlorite Solution 31.25 exceeds 5.0 ppm, a potable water rinse should follow treatment. Care should be taken to ensure the biological and chemical quality of the potable water.

Industrial Cooling Water Treatment

For control of bacterial slime and algae in industrial recirculating and one-pass cooling systems, the required dosages will vary depending on the exact application and the degree of contamination present. The required chlorine dioxide residual concentrations range between 0.1 and 5.0 ppm. Chlorine dioxide may be applied either continuously or intermittently. The typical chlorine dioxide residual concentration range is 0.1 - 1.0 ppm for continuous doses, and 0.1 - 5.0 ppm for intermittent doses. The minimum acceptable residual concentration of chlorine dioxide is 0.1 ppm for a minimum one minute contact time.

Potable Water Treatment

Chlorine dioxide (ClO_2) is used as both an oxidant and a disinfectant in drinking water treatment. The required dosages will vary with source water conditions and the degree of contamination present. For most municipal and public potable water systems, a chlorine dioxide residual concentration of up to 2 ppm is sufficient to provide adequate disinfection. Residual disinfectant and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards.

Bacterial Slime Control in Paper Mills

Chlorine dioxide generated from sodium chlorite is effective for use in controlling microbiological growth in white water paper mill systems. The required dosages will vary with the degree of microbiological and process contamination present. Depending on the specific requirements of the system, sodium chlorite should be applied continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.1 and 5.0 ppm. Intermittent treatments should be repeated as often as necessary to maintain control.

Mollusk Control in Water Systems

Chlorine dioxide generated from sodium chlorite may be used for mollusk control in commercial and industrial recirculating and one-pass cooling water systems. The required dosages will vary with the system type, system conditions, the degree of water contamination present and the desired level of control. Depending on the extent of the infestation, sodium chlorite may be applied either continuously or intermittently through a chlorine dioxide generating system to achieve the necessary chlorine dioxide residual concentration.

Veliger Control: Maintain a continuous chlorine dioxide residual of 0.1 - 0.5 ppm.

Intermittent Dose: Apply chlorine dioxide to obtain a chlorine dioxide residual concentration of 0.2 - 25 ppm. Repeat as necessary to maintain control.

Continuous Dose: Maintain a chlorine dioxide residual concentration of up to 2 ppm.

Bacterial Control In Oil Wells And Petroleum Systems

Chlorine dioxide is effective in the remediation of bacterial and sulfide contamination commonly found in oilfield production, injection and disposal fluids. The required dosages will vary with process conditions. Sodium chlorite may be applied either continuously or intermittently through a chlorine dioxide generating system to oil well production water as it is separated from the oil, and before it is re-injected into the well.

For continuous feeds, chlorine dioxide may be applied at dosages slightly higher than sulfide's oxidative demand as determined by a demand study. For intermittent treatment, chlorine dioxide should be applied at a shock dosage of 200 - 3000 ppm.

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Wastewater Treatment

Chlorine dioxide (ClO_2) is effective as both a disinfectant and an oxidant in wastewater treatment. The required dosages will vary with water conditions and the degree of contamination present. For most municipal and other wastewater systems, a chlorine dioxide residual concentration of up to 5 ppm is sufficient to provide adequate disinfection.

For sulfide odor control, between pH 5-9, a minimum of 5.2 ppm (wt) of chlorine dioxide should be applied to oxidize 1 ppm of sulfide (measured as sulfide ion). For phenol destruction, at pH less than 8, 1.5 ppm chlorine dioxide will oxidize 1 ppm phenol; at pH greater than 10, 3.3 ppm chlorine dioxide will oxidize 1 ppm phenol.

STORAGE AND DISPOSAL

STORAGE: Do not contaminate water, food or feed by storage or disposal. Keep product in tightly closed container when not in use. Don't drop, roll or skid drum. Keep upright. Always replace cover. Store in a cool, dry well-ventilated area away from heat or open flame.

EMERGENCY HANDLING: In case of contamination or decomposition, do not reseal container. If possible, isolate container in open and well ventilated area. Flood with large volumes of water. If fire occurs, extinguish fire by applying large quantities of water. Any unopened drums near the fire should be cooled by spraying with water.

PESTICIDE DISPOSAL: Pesticide wastes are acutely 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 DISPOSAL Nonrefillable Container.
Do not reuse or refill this container. Offer for recycling if available. Offer for reconditioning if appropriate. Triple Rinse or Pressure Rinse container promptly after emptying.

Triple Rinse as follows: Empty remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure Rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds, after the flow begins to drip.

Label: M47026 (6400-DOT) OC_US_Pail_EPA (0110) R01

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For containers that are larger than 5-gallons

TECHNICAL SODIUM CHLORITE SOLUTION 31.25

(25% Active Sodium Chlorite)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

DANGER. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. Irritating to nose and throat. Do not get in eyes, on skin or on clothing. Wear protective eyewear (splashproof goggles). Wear protective clothing and rubber gloves when handling this product. Avoid breathing mists or fumes. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse to avoid fire.

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 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 the 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.

CHEMICAL HAZARDS

Dry sodium chlorite is a strong oxidizing agent. This product becomes a fire or explosive hazard if allowed to dry. Mix only into water. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide a poisonous, explosive gas), and possible fire and explosion. Do not contaminate with garbage, dirt, organic matter, household products, chemicals, soap products, paint products, solvents, acids, vinegar, beverages, oils, pine oil, dirty rags, or any other foreign matter.

DIRECTIONS FOR USE

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

Directions for Controlling the Growth of Algae in Recirculating Cooling Water Towers

Clean badly fouled systems before starting treatment. 2. When algae are visible, add an initial dosage of 8.4 fluid ounces of Sodium Chlorite per 1,000 gals. of water in the system. Repeat if necessary until control is evident. 3. Where algae control is evident, use a subsequent dose of 4.2 fluid ounces of Sodium Chlorite solution per 1,000 gals. of water in the system twice a week or as needed to maintain control. 4. Add Sodium Chlorite directly to the cooling tower drip pan (cold water basin) near the inlet to the recirculating pump.

Directions for Use in the Mechanical or Electrolytic Generation of Chlorine Dioxide as a Disinfectant, or for Microorganism or Mollusk Control and as a Chemical Oxidant in Aquatic Systems.

Feed requirements: Feed rates of Technical Sodium Chlorite Solution 31.25 will depend on the severity of contamination and the degree of control desired. The exact dosage will depend on the size of the system and residual necessary for effective control. Depending on the generator type, Technical Sodium Chlorite Solution 31.25 may be diluted at the point of use to prepare a 3% to 25% active aqueous solution for use in chlorine dioxide generators.

ACTIVE INGREDIENT: Sodium Chlorite*	25%
OTHER INGREDIENTS:	75%
*AVAILABLE CHLORINE	39%

CONTAINS 2.58 LBS. OF SODIUM CHLORITE PER GALLON AT 70°F

KEEP OUT OF REACH OF CHILDREN

DANGER

FIRST AID

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 immediately for 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 treatment advice if burning or irritation of the skin persists.
If swallowed:	• Have person drink a glass of water immediately if able to swallow. • Call a poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled:	• Move person to fresh air and monitor for respiratory distress. • If cough or difficulty in breathing develops, consult a physician immediately. • If person is not breathing, call 911 or an ambulance, then give artificial respiration. • Call a poison control center or doctor for further treatment advice.

For emergency information call: 800-733-3665 (24 hours)
Have the product container or label with you when calling a poison control center or doctor or going to treatment.

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

Manufactured By:

Occidental Chemical Corporation
P. O. Box 809050
Dallas, TX 75380-9050

24-Hour Emergency No: 1-800-733-3665
CHEMTREC Emergency No: 1-800-424-9300

EPA Reg. No. 5382-43

EPA Est. 5382-KS-1
EPA Est. 70547-IL-1

_____ Gals. Net (_____ l)

Some examples of industrial applications of chlorine dioxide include:

- Potable water disinfection and removal of sulfide.
- Control of bacterial slime and algae and mollusks in industrial recirculating and one-pass cooling systems.
- Biocontrol in food processing flumes, water-using equipment, cooling water, and recycled waters.
- Disinfection of sewage and plant wastes.
- Destruction of phenolics, simple cyanides and sulfides by chemical oxidation.
- Bacterial slime control in white water paper mill systems.
- Bacterial control in oil well and petroleum systems.

See product bulletins (or Technical Data Sheets) for specific application instructions. Your Occidental Chemical Corporation representative can guide you in the application techniques.

Method of feed: Large amounts of chlorine dioxide can be generated by several common methods, including:

1. The chlorine method which utilizes a Sodium Chlorite solution and chlorine gas, or
2. The hypochlorite method which utilizes a Sodium Chlorite solution, a hypochlorite solution, and an acid, or
3. The Acid-chlorite method which utilizes a Sodium Chlorite solution and an acid, or
4. The electrolytic method which utilizes a Sodium Chlorite solution, with sodium chloride added as needed.

Your Occidental Chemical Corporation representative can guide you in the selection, installation and operation for feed systems. Consult product bulletin and also the instructions on the chlorine dioxide generation system before using Technical Sodium Chlorite Solution 31.25.

User is responsible for compliance with applicable Federal, state and local laws regarding proper use and disposal of the chlorine dioxide generated.

Directions for Use in Controlling Microbial Population in Poultry Processing Water

Chlorine dioxide generated from Technical Sodium Chlorite Solution 31.25 may be used as an antimicrobial agent in water used in poultry processing, provided that the residual concentration of chlorine dioxide does not exceed 3 ppm, as determined by an appropriate method in accordance with 21CFR§173.300.

For treatment of poultry chill water, apply Technical Sodium Chlorite Solution 31.25 as necessary through a chlorine dioxide generation system to maintain a residual concentration of up to 3 parts per million (ppm) chlorine dioxide in the chiller water.

Food Plant Process Water Treatment

Chlorine dioxide generated from sodium chlorite is effective for use in controlling microbiological growth in flume water and other food processing water systems such as chill water systems and hydrocoolers. The required dosages will vary with process conditions and the degree of contamination present. Depending on the requirements of the specific water system, sodium chlorite should be applied continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.25 and 5.0 ppm.

Water, containing up to 3 ppm residual chlorine dioxide may be used for washing fruits and vegetables that are not raw agricultural commodities in accordance with 21CFR§173.300. Treatment of the fruits and vegetables with chlorine dioxide must be followed by a potable water rinse, or by blanching, cooking or canning.

Aqueous Disinfection Systems for CIP Cleaning: If the concentration of chlorine dioxide generated from Technical Sodium Chlorite Solution 31.25 exceeds 50 ppm, a potable water rinse should follow treatment. Care should be taken to ensure the biological and chemical quality of the potable water.

Industrial Cooling Water Treatment

For control of bacterial slime and algae in industrial recirculating and one-pass cooling systems, the required dosages will vary depending on the exact application and the degree of contamination present. The required chlorine dioxide residual concentrations range between 0.1 and 5.0 ppm. Chlorine dioxide may be applied either continuously or intermittently. The typical chlorine dioxide residual concentration range is 0.1 - 1.0 ppm for continuous doses, and 0.1 - 5.0 ppm for intermittent doses. The minimum acceptable residual concentration of chlorine dioxide is 0.1 ppm for a minimum one minute contact time.

Potable Water Treatment

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Triple Rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container 1/4 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure Rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse about 40 PSI for at least 30 seconds. Drain for 10 seconds, after the flow begins to drip.

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