AccuCide 101A

CHLORINE DIOXIDE PRECURSOR FOR MICROBIAL CONTROL IN WATER AND WASTEWATER

ACTIVE INGREDIENTS:
- Sodium Chlorite: 25%
- Other Ingredients: 75%
- Total: 100%

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 a 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) 424-9300 (24 hours)
Have the product container or label with you when calling a poison control center.

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

DIRECTIONS FOR USE (continued)

If the concentration of chlorine dioxide generated from AccuCide 101A exceeds 5.0 ppm, a potable water rinse or, by blanching, cooking or canning.

FOOD PROCESSING PLANTS, DAIRIES, BOTTLING PLANTS, AND BREWERIES:
For chlorine dioxide generation in typical food processing water systems, such as flume transport, chill water systems, hydrocoolers, beverage and brewery pasteurizers and bottle rinsing, apply AccuCide 101A through a chlorine dioxide generation system to achieve a chlorine dioxide residual concentration ranging from 0.25 to 5.0 ppm.

This product is toxic to fish and aquatic life. Do not discharge chlorine dioxide solution or dispensed chlorine dioxide solution containing this product to waters of the United States, unless permitted by the Corps of Engineers, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Corrosive. Causes eye and skin damage. Harmful if swallowed. Irritating to nose and throat. Avoid breathing vapor. Do not get in eyes, on skin or clothing. Wear goggles or face shield, rubber gloves and protective clothing when handling. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

DIRECTIONS FOR USE

1. WASHING DRY CLEANING (INDUSTRIAL)

- Use AccuCide 101A to generate chlorine dioxide for use as an antimicrobial agent in water used in washing and dry cleaning systems.
- The chlorine dioxide solution must be applied to soiled fabric to provide adequate process disinfection.

2. INDUSTRIAL PROCESS WATER TREATMENT

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

3. POTABLE WATER TREATMENT

- Use AccuCide 101A to provide initial disinfection of water used in various potable water systems.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

4. ENVIRONMENTAL DISINFECTION

- Use AccuCide 101A to provide initial disinfection of water used in various environmental disinfection systems.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

5. THIRD PARTY TESTING

- Use AccuCide 101A to provide initial disinfection of water used in various third party testing systems.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

6. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

7. CHLORINE DIOXIDE PRECURSOR

- Use AccuCide 101A to provide initial disinfection of water used as a chlorine dioxide precursor.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

8. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

9. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

10. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

11. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

12. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

13. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

14. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

15. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

16. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

17. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

18. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

19. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

20. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

21. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

22. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

23. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

24. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

25. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

26. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

27. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

28. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

29. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.

30. INDUSTRIAL PROCESS WATER TREATMENT (GENERAL INDUSTRIAL)

- Use AccuCide 101A to provide initial disinfection of water used in various industrial processes.
- The chlorine dioxide solution should be applied to water to provide adequate process disinfection.
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101A. Your Nalco representative can guide you in the selection, installation and operation of generation following methods of generation:

(1) The chlorine method, which uses AccuCide 101A and chlorine gas;
(2) The hypochlorite method, which uses AccuCide 101A and a combination of a hypo-chloride solution, and an acid;
(3) The acid-chlorite method, which uses AccuCide 101A and an acid as the activating agent; or
(4) The electrolytic method which uses AccuCide 101A with sodium chloride added as needed.

Your Nalco representative can guide you in the selection, installation and operation of generation systems. Consult the instructions on the chlorine dioxide generation system before using AccuCide 101A.

DIRECTIONS FOR USE (continued)

APPLICATIONS
For microbial control in typical food processing water systems, such as flame treat, chill water systems, hydrocoolers, beverage and brewery pasteurizers and bottle rinsing, apply AccuCide 101A through a chlorine dioxide generation system to achieve a chlorine dioxide residual concentration ranging from 0.25 to 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 21CFR173.300. Treatment of the waters prior to treatment with chlorine dioxide must be followed by a potable water rinse, or by blanching, cooking or canning.

POULTRY PROCESSING WATER: Use AccuCide 101A to generate chlorine dioxide for use as an antimicrobial agent in water used in poultry processing in an amount not to exceed 3 ppm residual chlorine dioxide as determined by an appropriate method.

AQUEOUS DISINFECTION SYSTEMS FOR CIP CLEANING:
If the concentration of chlorine dioxide generated from AccuCide 101A 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.

GENERAL, INDUSTRIAL PROCESS WATER TREATMENT (OLIEFIELD INJECTION WATER, WHITE WATER PAPER MILL SYSTEMS, AND RECIRCULATING COOLING TOWERS):
For control of microbial slime, these systems will require a chlorine dioxide residual concentration ranging between 0.25 and 5.0 ppm. The AccuCide 101A dosage needed to achieve these levels will vary widely depending on the exact application. Please consult your Nalco representative for assistance in determining the correct dosage level.

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DIRECTIONS FOR USE (continued)

FEED REQUIREMENTS
Feed rates of AccuCide 101A 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, AccuCide 101A may be diluted at the point of use to prepare a 3% to 7.5% active aqueous solution for use in chlorine dioxide generators.
In all cases, generated chlorine dioxide solution should be applied in such a manner to ensure adequate mixing and minimal volatilization. The water stream to be treated may either be passed directly through the chlorine dioxide generator or treated via side stream injection point. The generation system employed should be in good working order and capable of achieving chlorine dioxide solution free from chlorine contamination.
Because of the variability of demand in water and process systems, the dosage of chlorine dioxide required to achieve the target residuals is normally lower for continuous feed systems than for slug or timed feed applications. The minimum acceptable residual for chlorine dioxide, as determined by a verified procedure, is 0.1 ppm for a minimum one minute contact time.
Residual determination procedures should be substantiated methods and should also be specific for chlorine dioxide or used in systems where no chlorine contamination is possible. Do not add AccuCide 101A directly to process water.

APPLICATIONS

POTABLE WATER AND WASTEWATER DISINFECTION:
For most municipal and public potable water systems, a chlorine dioxide residual concentration up to 2.0 ppm is sufficient to provide adequate disinfection. Residual chlorine 101A and disinfection byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR Part 141) and state drinking water standards. For wastewater and sewage applications, residual chlorine dioxide concentrations up to 5.0 ppm are generally adequate.

FOOD PROCESSING PLANTS, DAIRIES, BOTTLING PLANTS, AND BREWERIES:
For microbial control in typical food processing water systems, such as flume transport, chill water systems, hydroceters, beverage and brewery pasteurizers and bottle rinsing, apply AccuCide 101A through a chlorine dioxide generation system to achieve a chlorine dioxide residual concentration ranging from 0.25 to 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, cleaning or cannoning.

POULTRY PROCESSING WATER:
Use AccuCide 101A to remove chlorine dioxide for use as an antimicrobial agent in water used in poultry processing in an amount not to exceed 3 ppm residual chlorine dioxide as determined by an approved method.

AQUEOUS DISINFECTION SYSTEMS FOR CIP CLEANING:
If the concentration of chlorine dioxide generated from AccuCide 101A 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.

GENERAL INDUSTRIAL PROCESS WATER TREATMENT (OILFIELD INJECTION WATER, WHITE WATER PAPER MILL SYSTEMS, AND RECYCLING SYSTEMS):
For control of microbial slime, these systems will require a chlorine dioxide residual concentration ranging between 0.25 and 5.0 ppm. The AccuCide 101A dosage needed to achieve these levels will vary widely depending on the exact application. Please consult your Nalco representative for assistance in determining the correct dosage level.