CHEMTREAT
CL25D
(25% Aqueous Sodium Chlorite Solution)
PRECURSOR FOR CHLORINE DIOXIDE AND ACIDIFIED CLORITE SOLUTIONS
FOR INDUSTRIAL USE ONLY

ACTIVE INGREDIENT
Sodium Chlorite........................................25%
OTHER INGREDIENTS....................................75%
Total..........................................................100%

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
DANGER. CORROSIVE. Causes irreversible eye damage and skin burns.
Do not get in eyes or clothing. Wear safety glasses or goggles, protective clothing, and rubber gloves when handling this product. Harmful if swallowed. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS
This product is toxic to fish, aquatic invertebrates, oysters, and shrimp. 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.

PHYSICAL OR CHEMICAL HAZARDS
DANGER: This product becomes a fire or explosive hazard if allowed to dry. Strong oxidizing agent. Mix or dilute into water only. Mixing with acids, or alcohol, or other chemicals may cause evolution of chlorine and chlorine dioxide gas which is toxic and may be explosive. Combustible materials contaminated with ChemTreat CL25D may burn rapidly. Keep handling areas and equipment clean and free of oils, greases, combustibles, and dust. Do not contaminate this product with garbage, dirt, organic matter, paint products, solvents, acids, vinegar, beverages, oils, pine oils, dirty rags, or other foreign matter. Do not expose to hot surfaces, sparks or open flame.

MANUFACTURED FOR:
CHEMTREAT, INC.
5640 Cox Road
Glen Allen, Virginia 23060

EPA Registration No. 9150-7-15300
EPA Establishment No. 1088-MI-05
EPA Establishment No. 86565-1A-002
EPA Establishment No. 41934-PA-002
EPA Establishment No. 73015-OR-001
EPA Establishment No. 87762-CA-001

Net Contents ____________ GAL.

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 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 SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. 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. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

For 24 hour emergency information on this product, call Chemtrec at 1-800-424-9300
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

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

STORAGE AND DISPOSAL
DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL
STORAGE: Store upright in cool, dry and well-ventilated place. Avoid excessive heat or freezing. Protect from contact with other chemicals; avoid storage with organic chemicals, acids, reducers and combustible material. Keep container tightly closed when not in use. In case of spills, flush and drain promptly to sewer with large quantities of water. Do not allow liquid to dry out because this could present a fire hazard. If fire occurs, extinguish with large volume of water. Avoid exposure to high temperatures during storage. Store remote from other chemicals and combustible materials. Do not skid or slide drums.

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinseate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: (Containers over 5 gallons) Nonrefillable Container. Do not reuse or refill this container.
Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¾ 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 rinseate into application equipment or a mix tank or store rinseate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
EMERGENCY HANDLING: In case of contamination or decomposition, do not reseal container. Isolate in an open, well-ventilated area. Flood with large volumes of water. Cool unopened drums in vicinity by water spray.

WARRANTY: Seller expressly warrants that the product conforms to its chemical description. There are no warranties associated with the sale of the product either expressed or implied including, but not limited to, the warranties of fitness for a particular purpose or use.
APPLICATIONS

ChernTreat CL25D is a precursor for the generation of chlorine dioxide. Chlorine dioxide solutions can be generated from ChernTreat CL25D by several common methods including:

1. The chlorine method which utilizes ChernTreat CL25D and chlorine gas, or
2. The hypochlorite method which utilizes ChernTreat CL25D, a hypochlorite solution and an acid, or
3. The Acid-Chlorite method which utilizes ChernTreat CL25D and an acid, or
4. The electrolytic method which utilizes ChernTreat CL25D, with sodium chloride as needed.

ChernTreat CL25D can also be used to form acidified sodium chloride solutions by mixing the product with Generally Recognized as Safe (GRAS) acids such as citric, phosphoric or acetic acid. Add the generated chlorine dioxide solution to the point in the system which ensures uniform mixing. Your ChernTreat, Inc. representative can guide you in the selection, installation and operation for feed systems.

APPLICATIONS

POTABLE WATER AND WASTEWATER DISINFECTION: For most municipal and other potable water systems, a chlorine dioxide residual concentration up to 2.0 ppm is sufficient to provide adequate disinfection. Typically, the target residual concentrations range from 0.20-0.75 ppm. Monitor the distribution system to ensure that the chlorine concentration does not exceed its maximum contaminant level (MCL) of 1 mg/L and that chlorine dioxide does not exceed its maximum residual disinfection level (MRDL) of 0.8 mg/L. For wastewater and sewage applications, residual chlorine dioxide concentrations up to 5.0 ppm are generally adequate.

POTABLE WATER SYSTEMS: Nitrification: To control the build up of nitrification in the water distribution system. Utilize a chemical metering system to add this product so that the resulting dose of chlorine dioxide or sodium chloride to control nitrification does not exceed the MRDL of 0.8 mg/L for ClO₂ or the MCL of 1.0 mg/L for chlorine ion.

Use of this product in public water systems (drinking water utilities) triggers monitoring and compliance requirements under 40 CFR 141. Among other requirements the user of this product is required to conduct daily monitoring for chlorine dioxide and chlorite at the point of addition and to comply with standards for chlorine dioxide and chlorite. The user of this product is required to contact State or primary drinking water programs to determine specific monitoring, compliance, reporting, and record-keeping requirements in order to avoid adverse human health effects and/or non-compliance with such requirements.

FOOD PROCESSING PLANTS, DAIRIES, BOTTLING PLANTS AND BREWERIES, FOOD PLANTS PROCESS WATER: For microbial control in typical food processing water systems, such as flume transport, chill water systems, hydrocoolers, and retort cooling water, apply ChernTreat CL25D through a chlorine dioxide generation system to achieve a chlorine dioxide residual concentration ranging from 0.25 to 3.0 ppm.

POULTRY PROCESSING WATER: Use ChernTreat CL25D 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 ChernTreat CL25D exceeds 5.0 ppm, a potable water rinse must follow treatment. Care must 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 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.

ONCE THROUGH COOLING WATER SYSTEMS: Control of mollusks can be effectively accomplished using ChernTreat CL25D as directed in commercial and industrial once through cooling water systems. ChernTreat CL25D may be fed on a continuous or slug basis depending on the degree of system fouling.

SLUG DOSE: Add 42 to 210 lbs. of chlorine dioxide per million gallons of water (5 to 25 ppm).

CONTINUOUS DOSE: Add 2 to 16 lbs. of chlorine dioxide per million gallons of water (0.25 to 2 ppm).

IN FOOD PROCESSING FACILITIES

For use as a terminal food contact surface sanitizing rinse conforming to 40 CFR 180.940 paragraph (b) and (c) not requiring a subsequent potable water rinse. This solution may be used on hard surfaces such as dairy processing equipment, food processing equipment and utensils.

1. All equipment & utensils must be thoroughly cleaned to remove gross food particles and soil by pre-flush or pre-scrape and where necessary a pre-soak treatment. The surfaces or objects must then be cleaned with a detergent or cleaner followed by a potable water rinse before application of the sanitizing solution.

2. To prepare a 200 ppm chlorine dioxide sanitizing use solution add 6 oz. of ChernTreat CL25D to 50 gallons of water and then acidify to pH 2.6 with a Generally Recognized As Safe (GRAS) acid such as hydrochloric, citric, phosphoric or acetic acid. Allow to stand for at least 15 minutes before use. Alternatively to minimize worker handling, an automated system can be utilized that will safely react ChernTreat CL25D with a GRAS Acid and safely dilute the solution to the 200 ppm chlorine dioxide sanitizing use solution.

3. Fill, immerse, circulate, wipe or spray the target surface with the sanitizing solution making sure the surface area is thoroughly wet for at least one minute. Hard to reach in-place equipment, pipes, closed vessels, etc., must be filled with the sanitizing solution to ensure contact with all surfaces. Use suitable breathing apparatus when spraying the solution on external equipment.

4. Allow the sanitizing solution to drain from all treated surfaces and air dry. Do not rinse treated surface.

5. The above solution must not be reused for sanitizing, but can be diluted 1:5 with water and used for cleaning of walls, floors and drains of the plant.

IRRIGATION AND IRRIGATION WATER SYSTEMS

IRRIGATION: To control bacteria, algae and slime in irrigation piping and emitters for field and greenhouse/hothouse applications continuously or with a slug dose.

WATER RESERVOIRS: To control bacteria, algae, slime and reduce nitrification treat continuously or with a slug dose.

SLUG DOSE: Add 42 to 210 pounds of chlorine dioxide per million gallons of water (5 to 25 ppm).

CONTINUOUS DOSE: Add 2 to 16 pounds of chlorine dioxide per million gallons of water (0.25 to 2 ppm).

When used as directed under Environmental Protection Agency (EPA) regulations ChernTreat CL25D is a precursor for the generation of chlorine dioxide to:

1. Provide microbial control in wash or process water for fruit and vegetable raw agricultural commodities.
2. Control spoilage and decay causing non-public health microorganisms present in the wash or process water for fruit and vegetable raw agricultural commodities.
3. Provide microbial control in poultry processing chiller water.

ChernTreat CL25D can be used under US Food and Drug Administration (FDA) regulations 21 CFR 173.300 for poultry processing water and as an antimicrobial agent in water used to wash fruits and vegetables that are not raw agricultural commodities.

ChernTreat CL25D can be used to prepare acidified sodium chloride solutions under US Food and Drug Administration (FDA) regulations 21 CFR 173.325 for use in poultry processing water, processing of red meat, red meat parts, and organs, an antimicrobial agent in water and ice that are used to rinse, wash, cool, transport or store seafood, an antimicrobial agent in the water applied to processed fruits and vegetables.

DIRECTIONS FOR TREATING ENHANCED OIL & GAS EXPLORATION AND RECOVERY SYSTEMS including primary, secondary or tertiary oil and gas recovery, plus oil sands processing waters.

NOTE: Addition of chlorine dioxide generated from ChernTreat CL25D must be made at the free water knockout, before or after the injection pumps and injection well headers. For microbial control in oil field water, polymer or micellar fluids, water-disposal systems, or other oil field water systems, OXYCHLOR® generator systems are the preferred method of addition.

Continuous Feed Method: Treat water (aqueous solutions, suspensions, dispersions, mud, fluids) until a residual of 0.25 [1.19 (California minimum)] to 10.0 ppm chlorine dioxide is achieved.

The required dosage rate, frequency and concentration of chlorine dioxide can vary for each individual user, depending on severity of contamination, temperature and pH. Typical concentrations of chlorine dioxide are between 0.25[1.19 (California minimum)] and 5.0 ppm above the chemical (chlorine dioxide) demand of the system on a continuous basis, but may require up to 10.0 ppm.

The aqueous chlorine dioxide stream from the generator must always be injected or introduced below the surface of the treated water/suspension/fluid/slurry, preferably while flowing or mixing. Allowing the aqueous chlorine dioxide stream to free-fall through air results in a loss of chlorine dioxide gas to the atmosphere.
KEEP OUT OF REACH OF CHILDREN
DANGER
FIRST AID
DIRECTIONS FOR USE

In the event of a violation of Federal law to use this product in a manner inconsistent with its labeling.

METHOD OF APPLICATION
ChemTreat CL25D is a precursor for the generation of chlorine dioxide. Chlorine dioxide residues will be generated under the following several common methods including:
1) The hypochlorite method which utilizes ChemTreat CL25D and chlorine gas, or
2) The hypochlorite method which utilizes ChemTreat CL25D, a hypochlorite stabilizer and chlorine gas. Use of the hypochlorite
3) The Acid-Chlorite method which utilizes ChemTreat CL25D and an acid, or
4) The electrolytic method which utilizes ChemTreat CL25D, with sodium chloride

ChemTreat CL25D can also be used to form acidified sodium chlorite solutions by mixing the product with a Generally Recognized As Safe (GRAS) sodium chlorite acid. The sodium chlorite acid is to be a minimum purity of 26 % weight for weight (wt/wt) and then add an acidifier to the solution to achieve the 26 ppm chlorine dioxide sanitizing use solution.

Maintain the treated area with the sanitizing solution making sure the area is thoroughly wet for at least one hour. Make sure the treated area is free from debris, mud, and dust. Do not rinse treated surface.

The above solution must not be reused for sanitizing, but can be diluted 1:5 with water (0.25 to 2 ppm). For control of microbial slime, these

IN FOOD PROCESSING FACILITIES
For use in a terminal food contact surface sanitizing system conforming to 40 CFR 190.940 paragraph (b) and (c) not requiring a subsequent potable water rinse. This system may also be used for cleaning surfaces such as digital processing equipment, food processing equipment and utensils.

1. All equipment & utensils must be thoroughly cleaned to remove gross food particles and chemical residues prior to being rinsed with this pre-treatment solution.
2. To prepare a 250 ppm chlorine dioxide sanitizing use solution add 6 oz. of ChemTreat CL25D to 5 gallons of water. Do not exceed 2 ppm chlorine dioxide for use as a food contact surface sanitizing system. This solution is to be a minimum purity of 26 % weight for weight (wt/wt) and add an acidifier to the solution to achieve the 26 ppm chlorine dioxide sanitizing use solution.

When using as a food contact surface sanitizing system the solution must not be reused, but can be diluted 1:5 with water for 24 hour emergency information on this product, call CHEMTREAT, INC.

CHEMTREAT, INC.
5840 Cox Road
Cabinet, Virginia 22060

EPA Registration No. 9150-T-715300
EPA Establishment No. 10103-MI-05
EPA Establishment No. 4949-A-04-02
EPA Establishment No. 705155-PA-02-02
EPA Establishment No. 708185-OR-01-01
EPA Establishment No. 877627-C-01-01

When used as directed in/compliance with the labeling on the container, CHEMTREAT CL25D is a precursor for the generation of chlorine dioxide to:

3. Provide microbial control in poultry processing chillers, meat chiller, dairy processing and meat processing waters.
4. Treat water (aqueous solutions, suspensions, dispersions, emulsions, etc.) and systems that are open, well-ventilated, and with large volumes of water. Cool unopened drums in vicinity by water spray.

Net Contents ______________ GAL.

The噻唑啉/thiolane containing, 3-trifluoromethyl-2-pyridine, as an alternative to chlorine dioxide for use as an antimicrobial agent in water used to wash fruits and vegetables that are not raw agricultural commodities.

ChemTreat CL25D can be used to prepare acidified sodium chlorite solutions under US Food and Drug Administration (FDA) regulations 21 CFR 173.325 for use in; municipal, industrial, and community water supplies, processing plants, and organisms. An antimicrobial agent in water is to be used to wash, rinse, transport, or store food, an antimicrobial agent in the water applied to processed fruits and vegetables.

DIRECTIONS FOR TREATING ENHANCED OIL & GAS EXPLORATION WATERS
For control of microbial slime, these

CHEMTREAT, INC. is committed to recycling all paper, cardboard, and metal from our processes. For disposal of this product, contact your local State or Federal regulatory agency for guidance.

DANGER
DANGER: This product is a flammable liquid if allowed to dry. Strong oxidizing agent. Mix or dilute into water only. Mixing with gases, acids, or chemical water to use as an antimicrobial agent in water used in poultry processing in an

ENVIRONMENTAL HAZARDS
This product is toxic to fish, aquatic invertebrates, and shrimp. Do not discharge this product into lakes, streams, ponds

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WARRANTY: Seller expressly warrants that the product conforms to its chemical description. There are no warranties associated with the sale of the product either express or implied including, but not limited to, the warranties of fitness for a particular purpose or use.

IMMEDIATELY
FIRST AID
IF IN EYES:
Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. If irritation persists, call a poison control center or doctor for further treatment advice.

SLUDGED: For 24 hour emergency information on this product, call CHEMTREAT, INC.

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