



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

EPA Reg. Number:

48990-6

Date of Issuance:

3/21/19

NOTICE OF PESTICIDE:

Registration
 Reregistration
 (under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Kuriverter IK-110

Name and Address of Registrant (include ZIP Code):

Kurita Water Industries, Ltd.
 c/o Eliot Harrison
 Lewis and Harrison
 2461 S. Clarke St., Suite 710
 Arlington, VA 22202

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

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

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

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data

Signature of Approving Official:

Demson Fuller, Product Manager 32
 Regulatory Branch I
 Antimicrobials Division (7510P)

Date:

3/21/19

2. You are required to comply with the data requirements described in the DCI der identified below:

N-Bromo Sulfamate Salts and Mixtures GDCI-028961-1734

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Reevaluation Team Leader (Team 36): <http://www2.epa.gov/pesticide-contacts/contacts-office-pesticide-programs-antimicrobial-division>.

3. Make the following label changes before you release the product for shipment:

- Revise the EPA Registration Number to read, "EPA Reg. No. 48990-6."

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

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

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 08/03/2018

If you have any questions, please contact Ben Chambliss by phone at (703) 308-8174, or via email at chambliss.ben@epa.gov.

Sincerely,



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

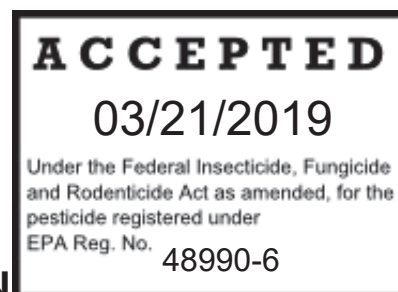
KURIVERTER IK-110

- FOR USE AS A FUNGICIDE, ALGICIDE, SLIMICIDE AND MICROBIOCIDE IN RECIRCULATING COOLING AND PROCESS WATER SYSTEMS, HEAT TRANSFER SYSTEMS, AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS, CONTAINERIZED PONDS AND DECORATIVE FOUNTAINS, INDUSTRIAL ONCE-THROUGH COOLING WATER SYSTEMS, WATER TRANSFER LINE SYSTEMS, PULP AND PAPER MILLS AND WASTEWATER SYSTEMS
- FOR USE AS A BIOCIDES IN OIL AND GAS FIELD APPLICATIONS SUCH AS OIL RECOVERY WELL FLUIDS AND FRACTURING FLUIDS, SECONDARY OIL RECOVERY SYSTEMS, AND HYDROSTATIC TEST WATERS
- FOR USE AS AN ANTIMICROBIAL IN CONTROLLING ODOR-CAUSING BACTERIA IN ANIMAL, LIVESTOCK AND POULTRY WATER LINES

Active Ingredient:

Sodium N-Chlorosulfamate.....	14.5%
Other Ingredients	<u>85.5%</u>
Total.....	100.00%

Available Chlorine: 6.2% (min.)



**KEEP OUT OF REACH OF CHILDREN
DANGER**

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Call a 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	<ul style="list-style-type: none"> • 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 treatment advice
<p>Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. For general information on product use, etc., call the National Pesticides Information Center at 1-800-858-7378. You may also contact 1-800-222-1222, the poison control center, for emergency medical treatment information.</p>	
<p style="text-align: center;">NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.</p>	

EPA Reg. No.: 48990-1
EPA Est. No.: 48990-XX-XXX

Net Contents: _____

Manufactured For:
Kurita Water Industries Ltd.
Nakano Central Park East 10-1
Nakano, 4-Chome, Nakano-ku
TOKYO 164-0001 JAPAN

Batch Number: _____

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

DANGER: Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed, absorbed through the skin, or inhaled. Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mist. Wear protective eyewear (goggles, face shield, or safety glasses), coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant shoes and waterproof gloves. Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. 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 separately before reuse.

PHYSICAL OR CHEMICAL HAZARDS

OXIDIZER. This product contains a strong oxidizer. Avoid contact with organic materials, such as alcohols and aldehydes, strong reducing agents, acids and ammonia containing products. In concentrated form, avoid contact with common metals such as steel, aluminum, iron and copper. Use of incompatible materials can lead to exothermic decomposition, which will release hazardous irritating gases.

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.

DIRECTIONS FOR USE

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

COMMERCIAL AND INDUSTRIAL WATER SYSTEMS AND RELATED USES

When used as directed, KURIVERTER IK-110 effectively controls bacterial, fungal and algal slimes in commercial and industrial water systems. KURIVERTER IK-110 can also be used to control biofilm deposits and microbial contamination from pumps, pipework, heat exchangers, and filters associated with industrial water treatment systems.

Only add KURIVERTER IK-110 directly to water. Badly fouled systems should be cleaned before treatment begins. KURIVERTER IK-110 may be applied to the water system either continuously or intermittently (slug dose) or as needed to obtain the target total chlorine level. For measuring the chlorine concentration, use a test kit designed for total chlorine. Analysis should be made immediately after drawing water samples from systems.

Recirculating Cooling and Process Water Systems

Use KURIVERTER IK-110 to reduce biofouling and microbial contamination in recirculating cooling water systems.

CONTINUOUS DOSING:

KURIVERTER IK-110 can be applied continuously to the recirculating cooling water systems to achieve a total chlorine level of 0.1-10 ppm or as needed depending upon the severity of contamination.

INTERMITTENT DOSING:

KURIVERTER IK-110 can be applied intermittently to recirculating cooling water systems to achieve a total chlorine level of 5-10 ppm depending upon the severity of contamination. The frequency and dosing interval may be once a day or as necessary.

Heat Transfer Systems

Use KURIVERTER IK-110 to reduce biofilm and microbial contamination in heat transfer systems such as hydrostatic sterilizers and retorts, pasteurizers and warmers, and batch and continuous cookers. Apply KURIVERTER IK-110 either continuously or intermittently to achieve a total chlorine level is 0.1-10 ppm.

Air Washers and Industrial Scrubbing Systems

For reduction of biofilm and microbial contamination in air washer or industrial scrubbing systems, add sufficient KURIVERTER IK-110 continuously or intermittently to the system inlet water or before the air washer sump, to achieve a total chlorine level of 0.1-10 ppm or as needed to maintain control depending upon the severity of contamination. Not for use in air washers and industrial scrubbing systems in the State of California

Membrane Systems for Industrial Water

Use KURIVERTER IK-110 to reduce biofouling and microbial contamination in various membrane systems (RO, UF, MF, and NF). The product may be applied to the system either continuously or intermittently or as needed to obtain the recommended total chlorine level.

INTERMITTENT DOSING:

KURIVERTER IK-110 can be applied intermittently to RO feed water to achieve a total chlorine level of 0.1-10 ppm. For the reduction of biofouling in filtration systems located upstream of membrane systems, KURIVERTER IK-110 may be injected before the filtration systems. The frequency and dosing interval may be for 3 hours per a day or as necessary in order to maintain RO productivity performance.

CONTINUOUS DOSING:

KURIVERTER IK-110 can be applied to RO feed water to achieve a total chlorine level of 0.1-10 ppm continuously. For the reduction of biofouling in filtration systems located upstream of membrane systems, KURIVERTER IK-110 may be injected before the filtration systems.

Containerized Ponds and Decorative Fountains

Use KURIVERTER IK-110 to reduce biofouling in ponds or fountains. Apply KURIVERTER IK-110 at the pond or fountain inlet or at a location that permits complete diffusion into the water at maximum retention time before reaching the outlet. Add KURIVERTER IK-110 to maintain a total chlorine level of 0.1-10 ppm in all parts of the pond or fountain, or as needed to maintain control.

Industrial Once-Through Cooling Water Systems

Use KURIVERTER IK-110 to reduce biofouling in once-through fresh and sea water cooling systems. Add KURIVERTER IK-110 continuously or intermittently to the system inlet water or before any other contaminated area in the system.

CONTINUOUS DOSING:

KURIVERTER IK-110 can be applied continuously to the once-through cooling water systems to achieve a total chlorine level of 0.1-10 ppm or as needed depending upon the severity of contamination.

INTERMITTENT DOSING:

KURIVERTER IK-110 can be applied intermittently to the once-through cooling water systems to achieve a total chlorine level of 5-10 ppm depending upon the severity of contamination. The frequency and dosing interval may be once a day or as necessary. Not for use in industrial once-through systems in the State of California.

Water Transfer Line Systems

Use KURIVERTER IK-110 to remove and control biofilm deposits, microbial contamination and other organic contaminants in industrial tanks, pumps, piping and tubing associated with water transfer line systems. Apply KURIVERTER IK-110 either continuously or intermittently to achieve a total chlorine level is 0.1-10 ppm. Rinse the system thoroughly with potable water prior to using the water transfer lines. **Not for use in food processing equipment, human drinking water systems, or dental lines.** Not for use in water transfer line systems in the State of California.

PULP AND PAPER MILLS

Use KURIVERTER IK-110 to reduce biofouling and as a slimicide in paper mill whitewater and shower water systems. Add KURIVERTER IK-110 to the systems either continuously or intermittently to achieve a total chlorine level of 0.1 -10 ppm. KURIVERTER IK-110 may also be applied in combination with the other biocides. Not for use in the manufacture of food-contact paper or paperboard.

KURIVERTER IK-110 can also be used to preserve pulp slurries, starch slurries, starch pastes, sizing solutions, pigments, fillers, polymers and coating formulations in paper mills. Add KURIVERTER IK-110 either continuously or intermittently to achieve a total chlorine level of 0.1 -10 ppm. KURIVERTER IK-110 may also be applied in combination with the other biocides. Do not use in the manufacture of food-contact paper or paperboard. Not for use in pulp and paper mills in the State of California.

OIL AND GAS FIELDS

Use KURIVERTER IK-110 to reduce biofouling in oil and gas field applications. KURIVERTER IK-110 reduces biofouling on pumps, pipe works, heat exchangers, separators, columns and filters associated with oil and gas field systems. It also reduces biofouling deposits downhole.

Oil Well and Hydraulic Fracturing Fluids

KURIVERTER IK-110 will reduce the biofouling in oil well and hydraulic fracturing fluids. Add a sufficient amount of this product directly to the well fluid or hydraulic fracturing fluid to achieve a total chlorine level of up to 10 ppm or as needed to maintain control of the system, This product may be added and premixed with the well fluid or the fracturing fluid prior to the oil and gas field operation or may be added directly to the blender during the operation. Be sure rapid mixing of the treated water with this product is achieved.

Gathering Systems and Flowback Water Systems

Use KURIVERTER IK-110 in gathering systems and flowback water systems, such as oil and gas field water flood or salt water disposal systems for reduction of various biofouling. Add sufficient amount of this product to achieve a total chlorine level of up to 10 ppm or as needed to maintain control of the system. This product can be added whenever needed to maintain 10 ppm residual total chlorine. Feed this product directly into the water to be treated. Be sure complete mixing of the treated water with this product is achieved.

Hydrostatic Test Waters

Use KURIVERTER IK-110 in hydrostatic test water systems for the reduction of biofouling. Add sufficient amount of this product to achieve a total chlorine level of up to 10 ppm or as needed to maintain control of the system. This product can be added whenever needed to maintain 10 ppm residual total chlorine. Feed this product directly into the water to be treated. Be sure complete mixing of the treated water with this product is achieved. Not for use in oil and gas field applications in the State of California.

ANIMAL WATER LINES (CLEAN IN-PLACE OF WATER LINES)

Use KURIVERTER IK-110 to control odor-causing and fouling bacteria in tanks, pumps or medicators associated with water lines in animal, livestock and poultry housing facilities. The water lines can be used for delivering drinking water, air chiller water and cooling spray lines. Prior to use in the water lines, remove all animals, livestock or birds from premises. Do not reintroduce animals, livestock or birds until treatment is complete and water lines have been thoroughly rinsed with potable water.

Dosage Rate: Apply KURIVERTER IK-110 via a chemical feed pump or medicator at a dose of one (1) ounce per one (1) gallon of water [1:128] into the pipes. Fill the water lines until the full flow is obtained at all extremities and the system is completely filled with the use-solution and all air is removed. Close drain valves and soak or circulate the use-solution for a minimum of 4 hours. Flush the system thoroughly with potable water prior to using the water lines.

Not for use in water lines in the State of California.

STORAGE AND DISPOSAL

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

STORAGE: Store in a cool, dry, well-ventilated area. Keep away from light exposure, especially direct sunlight. Avoid freezing and elevated temperatures. If heating is necessary to prevent freezing, care must be taken to prevent overheating. Temperature monitoring is recommended. If using a storage container, ensure that the container is vented.

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: [1-5 gallons] Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Offer for reconditioning if appropriate. 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 $\frac{1}{4}$ 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.

CONTAINER DISPOSAL [30 and 55 gallon drums]. Nonrefillable container. Do not reuse or refill the container. Triple rinse container (or equivalent) promptly after emptying. Offer for reconditioning if appropriate. Triple rinse as follows: Empty remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ 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. Turn the container over onto its other 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 to more times.

CONTAINER DISPOSAL: [275-300 gallon tote or IBC]. Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Offer for reconditioning if appropriate. Triple rinse as follows: 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 two more times.