



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

EPA Reg. Number:

9386-52

Date of Issuance:

2/11/26

NOTICE OF PESTICIDE:

☒ Registration  
☐ Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Fennosurf 590

Name and Address of Registrant (include ZIP Code):

Eric Mashburn  
Senior Pesticide Specialist,  
Kemira Water Solutions, Inc.  
Electronic Transmittal: eric.mashburn@kemira.com

**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 (FIFRA).

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:

Luisa Samalot, Product Manager 31  
Regulatory Management Branch, Antimicrobials Division (7510P)

Date:

2/11/26

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

- a. Amonium Sulfate: GDCI-005601-1586

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

3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 9386-52."
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 FIFRA and is subject to review by the Agency. See FIFRA section 2(p)(2). 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) lists 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, FIFRA section 12(a)(1)(B). 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 Assurance.

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 12/15/2025

Enclosure: Stamped Label

# FENNOSURF 590

MICROBIOCIDAL FOR USE IN PULP AND PAPER MILL WATER SYSTEMS, AND INDUSTRIAL WATER SYSTEMS

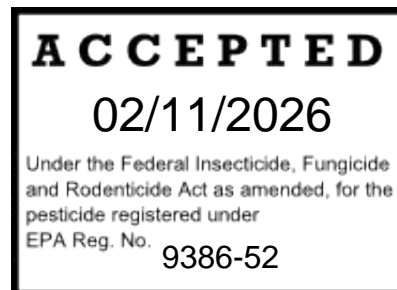
## ACTIVE INGREDIENT

Ammonium Sulfate.....40.00%

INERT INGREDIENTS.....60.00%

TOTAL.....100.00%

KEEP OUT OF REACH OF CHILDREN  
**CAUTION**



## 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. Call a poison control center or doctor for further 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:** Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Call a poison control center or doctor immediately for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

**GENERAL INFORMATION:** Have the product container or label with you when calling a Poison Control Center (1-800-222-1222) or doctor or going for treatment. For non-emergency and general information on product use, etc., information pertaining to this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378, Monday – Friday, 8:00 am – 12:00 pm Pacific Time; email: [npic@ace.orst.edu](mailto:npic@ace.orst.edu); or web site: <http://npic.orst.edu/>. You may also contact the Poisons Control Center at 1-800-222-1222 for emergency medical treatment information. You may also contact CHEMTREC at 1-800-424-9300.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Causes moderate eye irritation. Harmful if swallowed, absorbed through the skin or inhaled. Avoid contact with eyes, skin or clothing. Avoid breathing vapor. Wear protective clothing such as goggles, face shield, or safety glasses. Wear long-sleeved shirt and long pants, socks, shoes and waterproof gloves. 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

The pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

## PHYSICAL AND CHEMICAL HAZARDS

Direct mixing of this product with sodium hypochlorite solutions and other strong oxidizing and alkali chemicals will release hazardous gases. Only mix with other chemicals or materials as specified in the Directions for Use of this product.

EPA Reg. No. 9386-LE

EPA Est. No. 9386-GA-3

## DIRECTIONS FOR USE

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

This product must be used in conjunction with: 1) EPA registered sodium hypochlorite (12.5%) to produce monochloramine and 2) the Kemira feed delivery system at a pH of  $\geq 8.5$ , that is programmed to automatically and optimally produce a dilute solution of monochloramine. The installation, calibration and operation of the feeder/delivery system must be conducted only by Kemira authorized and trained personnel.

To achieve a minimum molar ratio of 1:2, Fennosurf 590 to sodium hypochlorite, combine 1.0 liter (0.264 gallons) of Fennosurf 590 to 3.7 liters (0.977 gallons) of sodium hypochlorite (12.5%). To ensure both handling safety and effectiveness, the monochloramine solution must be generated and fed into the treatment water systems through a proper chemical feed skid only by a trained Kemira representative. Use of this product for any other purpose or contrary to the use directions specified below is prohibited.

**PULP AND PAPER MILLS AND WATER SYSTEMS.** This product is used as a microbiocide in the manufacture of paper and paperboard that contacts food. This product is also used for the control of algal, bacterial and fungal slimes, in pulp and paper mill fresh and sea water influent systems, pulp and paper mill process water systems and paper mill starch slurries. This product is applied in conjunction with sodium hypochlorite, using a closed delivery system, to form monochloramine, a slower acting less aggressive oxidizing microbiocide.

## **\*PULP AND PAPER MILL FRESH AND SEA WATER INFLUENT SYSTEMS NOT APPROVED FOR USE IN CALIFORNIA**

**Dosage Rates:** When noticeably fouled, apply sufficient product and sodium hypochlorite to achieve a total chlorine residual of at least 1 ppm in excess of the system oxidant demand. Once control is achieved, treatment rates can be reduced to sub-demand rates from 50% to 80% of system demand. The product may be added to the system continuously or intermittently as needed to any area of the system where uniform mixing can be obtained.

For intermittent treatment, mix 1.0 liter (0.264 gallons) of Fennosurf 590 to 3.7 liters (0.977 gallons) of sodium hypochlorite (12.5%). Apply the solution at a rate to obtain 1 to 2 ppm in excess of the system oxidant demand (maximum of 10 ppm measured) as total chlorine in the water being treated for 5 to 60 minutes every 1 to 6 hours. The frequency of feeding and the duration of treatment will depend on the severity of the problem. Badly fouled systems must be cleaned before initial treatment.

For continuous treatment, mix 1.0 liter (0.264 gallons) of Fennosurf to 3.7 liters (0.977 gallons) of sodium hypochlorite (12.5%). Apply the solution at a rate to obtain 0.5 to 1 ppm in excess of system oxidant demand (maximum of 10 ppm measured) as total chlorine in the water being treated on a continuous

basis. The frequency of feeding and the duration of treatment will depend on the severity of the problem. Badly fouled systems should be cleaned before initial treatment.

**INDUSTRIAL WATER SYSTEMS:** Fennosurf 590 is used for the control of algal, bacterial and fungal deposits in industrial cooling towers, recirculating cooling water systems, evaporative condensers, influent water systems\* such as flow through filters and industrial water scrubbing systems, brewery and food pasteurizers\* including industrial microbial and biofuel fermentation processes, industrial fresh water systems, source water for potable water treatment facilities, airwashers, papermill starch slurries, reverse osmosis systems\*, paint spray booth sumps, non-fish containing decorative fountains\*, and ponds used for cooling purposes, sewage and wastewater systems. This product is also used for the control of algae, bacteria, fungi and mollusks in both seawater and freshwater influent systems.

**\*Brewery and food pasteurizers including microbial and biofuel fermentation processes, reverse osmosis systems and non-fish containing decorative fountains, sewage and wastewater systems, and for the control of algae, bacteria, fungi and mollusks in both seawater and freshwater influent systems and influent systems for once through industrial water systems NOT APPROVED FOR USE IN CALIFORNIA**

When this product is used to treat sewage and wastewater systems, seawater, and freshwater influent systems for once-through industrial water systems and seawater desalination and reverse osmosis systems, and the system water is not sent to a POTW; residual levels of chloramine in the effluent must be monitored and neutralized using on-line monitoring and control equipment.

When this product is used to treat recirculating cooling water systems, evaporative condensers, influent water systems (not part of once-through industrial water systems), brewery and food pasteurizers, airwashers, paint spray booth sumps, and non-fish containing decorative fountains and ponds used for cooling purposes; effluent detection of chloramine should be conducted at least once per shift. If chloramine is detected in the effluent, it can be neutralized by the addition of sodium metabisulfite until the chloramine is no longer detected.

**Dosage Rates:** When noticeably fouled, apply sufficient product and sodium hypochlorite to achieve a total chlorine residual of at least 1 ppm in excess of the system oxidant demand. Once control is achieved, treatment rates can be reduced to sub-demand rates from 50% to 80% of system demand. The product may be added to the system continuously or intermittently as needed to any area of the system where uniform mixing can be obtained.

For intermittent treatment, mix 1.0 liter (0.264 gallons) of Fennosurf 590 to 3.7 liters (0.977 gallons) of sodium hypochlorite (12.5%). Apply the solution at a rate to obtain 1 to 2 ppm in excess of the system oxidant demand (maximum of 5 ppm measured) as total chlorine in the water being treated for 5 to 60 minutes every 1 to 6 hours. The frequency of feeding and the duration of treatment will depend on the severity of the problem. Badly fouled systems must be cleaned before initial treatment.

For continuous treatment, mix 1.0 liter (0.264 gallons) of Fennosurf 590 to 3.7 liters (0.977 gallons) of sodium hypochlorite (12.5%). Apply the solution at a rate to obtain 0.5 to 1 ppm in excess of the system oxidant demand (maximum of 5 ppm measured) as total chlorine in the water being treated on a continuous basis. The frequency of feeding and the duration of treatment will depend on the severity of the problem. Badly fouled systems must be cleaned before initial treatment.

## **Storage and Disposal**

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

**PESTICIDE STORAGE:** Keep container tightly closed. Store in a dry place. Leaking or damaged containers should be placed in overpack containers for disposal. Spills should be absorbed in sawdust or sand and disposed in a sanitary landfill. Keep container closed when not in use.

**PESTICIDE DISPOSAL:** 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 directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Offer for reconditioning, if appropriate. 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 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. 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 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.

Manufactured by Kemira Water Solutions, Inc.  
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Atlanta, GA 30339