

VigorOx™ Antimicrobial Agent

EPA Registration No. 65402-2
EPA Est. No. 00279-NY-003

VigorOx™ antimicrobial agent is for biofouling and slime control in:

- Pulp and paper mill systems
- Recirculating cooling water systems
- Coating preservation
- Dispersed pigment preservation

For Industrial Use Only

Active Ingredients: Peroxyacetic Acid5.1%
Hydrogen Peroxide21.7%
Inert Ingredients:73.2%

**KEEP OUT OF REACH OF CHILDREN
DANGER**

See side panel for additional precautionary statements

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FMC Corporation
Peroxygen Chemicals Division
1735 Market Street
Philadelphia Pennsylvania 19103

Precautionary Statements Hazards to Humans and Domestic Animals

DANGER

Corrosive, causes eye and skin damage. Harmful or fatal if swallowed. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Wash thoroughly with soap and water after handling. Do not breathe vapor or spray mist. Do not enter an enclosed area without proper respiratory protection.

Physical or Chemical Hazards

Strong oxidizing agent. Mix only with water. VigorOx™ is not combustible; however, at temperatures exceeding 156°F, decomposition occurs releasing oxygen. The oxygen released could initiate or promote combustion of other materials.

Environmental Hazards

This pesticide is toxic to birds, mammals, fish and aquatic invertebrates. 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.

Any solution released from the system should be diluted with water and tested for residuals to ensure that there is less than 3 ppm peroxygen remaining.

Statement of Practical Treatment

If swallowed: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. See a physician.

If inhaled: Remove to fresh air. If breathing discomfort occurs, call a physician. If breathing has stopped, apply artificial respiration and see a physician.

If in eyes: Immediately flush with water for at least 15 minutes, lifting the upper and lower eyelids intermittently. See a physician.

If on skin: Immediately flush with plenty of water while removing contaminated clothing and/or shoes. Wash skin thoroughly with soap and water. See a physician. Wash contaminated shoes and clothing before reuse.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Storage and Disposal

NEVER RETURN VigorOx™ TO THE ORIGINAL CONTAINER AFTER IT HAS BEEN REMOVED. Avoid all contaminants, especially iron, caustic, reducing agents, and metals. Contamination and impurities will reduce shelf life and can induce decomposition. In case of a decomposition, isolate container, douse container with cool water and dilute VigorOx™ with large volumes of water.

Avoid damage to containers. Keep container closed at all times when not in use. Keep container out of direct sunlight. To maintain product quality, store at temperatures below 66°F. Do not store on wooden pallets.

Procedure for Leak or Spill

Stop leak if this can be done without risk. Shut off ignition sources; no flames, smoking, fires, or spark producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undisposed material should not enter confined spaces.

Disposal

Pesticide Disposal

If material has been spilled, an acceptable method of disposal is to dilute with at least 20 volumes of water followed by discharge into suitable treatment system in accordance with all local, state, and Federal environmental laws, rules, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies should be contacted prior to disposal.

VigorOx™ Antimicrobial Agent which is to be discarded, should be disposed of as hazardous waste after contacting the appropriate local, state, or Federal agency to determine proper procedures.

Container Disposal

Empty drums are not returnable to FMC unless special arrangements have been made. Triple rinse drums with water. Dispose of drums in accordance with local, state, and Federal regulations. Do a root review.

Directions for Use

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

Biofouling control in Pulp and Paper Mill Systems.

For use in manufacture of paper and paper board intended for food and non-food contact.

VigorOx™ antimicrobial agent can be used to control bacterial, fungal and yeast growth in pulp, paper and paperboard mills.

1. Severely fouled systems should be cleaned before adding the VigorOx™ solution. VigorOx™ should be added to the system directly and not mixed with any other chemicals or additives. Contamination with other chemicals could result in product decomposition.

2. Add the VigorOx™ antimicrobial agent at a point in the system where it can be mixed uniformly with the pulp, e.g., the beater, hydropulper, lan pump, broke pump etc.

3. Apply 0.3 to 1.5 lb. (5 to 24 fluid ounces) of VigorOx™ solution per ton (dry basis) of pulp or paper produced. This will provide 5 to 30 ppm of peroxyacetic acid and 22 to 163 ppm of hydrogen peroxide. Addition can be continuous or intermittent, depending upon the type of system and severity of the contamination.

Control of Bacteria and Fungi in Dispersed Pigments

VigorOx™ antimicrobial agent can be used in the control of bacteria and fungi in the manufacture and storage of dispersed pigments such as kaolin clay, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, magnesium silicate and kieselguhr used in paint and paper production.

Add 0.3 to 1.5 lb. (5 to 24 fluid ounces) (135-680 gm) of VigorOx™ antimicrobial agent to each 1,000 lb. (454 kg) of fluid. This will provide 300 to 1500 ppm of product (15 to 75 ppm peroxyacetic acid, and 65 to 320 ppm H₂O₂).

Control of slime forming bacteria in Cooling Water Systems (Cooling towers, evaporative condensers)

1. Severely fouled systems should be cleaned before adding the VigorOx™ solution. VigorOx™ should be added to the system directly and not mixed with any other chemicals or additives. Contamination with other chemicals could result in product decomposition.

2. Add the VigorOx™ antimicrobial agent at a point in the system where uniform mixing and even distribution will occur such as the cooling tower basin sump.

3. Use 0.3 to 1.5 lb. (5 to 24 fluid ounces) of VigorOx™ solution per 1000 gallons of solution as a continuous or intermittent slug treatment. This will provide 2 to 8 ppm of peroxyacetic acid and 8 to 39 ppm of hydrogen peroxide. Repeat treatment as required to maintain control.

Control of Bacteria and Fungi in Coatings Preservation

Not for use in the manufacture of material intended for food contact.

VigorOx™ antimicrobial agent can be used as an in-container preservative for the control of bacteria and fungi in water-based coatings such as paper coatings.

Add 0.3 to 1.5 lb. (5 to 24 fluid ounces) (135-680 gm) of VigorOx™ solution to each 1,000 lb. (454 kg) of water. This will provide 300 to 1500 ppm of product (15 to 75 ppm peroxyacetic acid, and 65 to 320 ppm H₂O₂).

In all applications always prepare a new solution daily to ensure effectiveness. Do not re-use solutions. Dispose of unused solution.

Proposed Draft Master Label Amended

FMC Environmental Protection
Department, 1735 Market Street
Philadelphia, PA 19103
EPA Reg. No. 65402-2

ACCEPTED
SEP 21 1995

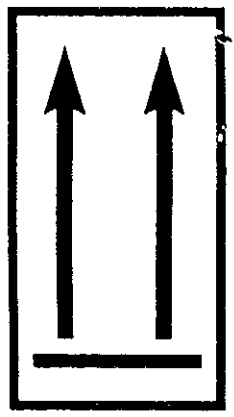
BEST COPY AVAILABLE

Chp 2

Net Contents

Gallons

Pounds



Keep vent end up,
do not roll



Side Panel with DOT information

ACCEPTED
SEP 21 1995
UNIVERSITY OF CALIFORNIA
FACULTY SENATE
65407-2

EMERGENCY TELEPHONE NUMBERS (24 HOURS)
MEDICAL: COLLECT 303-595-9048
TRANSPORTATION: 800-424-9300
OTHER: COLLECT 716-879-0400

For more information see Material Safety Data Sheet
Label Effective Date: August 1995

D.O.T. Description:
Oxidizing Substances, Liquid,
Corrosive, N.O.S.
(5% Peroxyacetic Acid Stabilized)
UN 3098