

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

August 7, 2017

William D. Shade Regulatory Manager The Dow Chemical Company 1803 Building Midland, MI 48674

Subject: Notification per PRN 98-10 – Minor label changes

Product Name: KATHON 7G Antimicrobial

EPA Registration Number: 464-8135

Application Date: July 5, 2017 Decision Number: 531923

Dear Mr. Shade:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

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 have any questions, you may contact Joe Daniels at (703) 347-8669 or via email at daniels.joseph@epa.gov.

Sincerely,

Zeno Bain, Acting Product Manager 33 Regulatory Management Branch I Antimicrobials Division (7510P)

Office of Pesticide Programs

# KATHON<sup>™</sup> 7G Antimicrobial

#### [BRACKETS INDICATE PHRASES THAT WILL NOT APPEAR ON PRINTED LABEL]

#### [MASTER LABEL]

## NOTIFICATION

464-8135

Dow Diamond
THE DOW CHEMICAL COMPANY

Produced For – When produced by a contract manufacturer

Midland, Michigan 48674 (989) 636-4400

TMTrademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow.

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

08/07/2017

**ACTIVE INGREDIENTS:** 

5-Chloro-2-methyl-4-isothiazolin-3-one
2-Methyl-4-isothiazolin-3-one
OTHER INGREDIENTS:
93.00%
TOTAL:

# DANGER FIRST AID

**IF IN EYES:** •Hold eye open and rinse slowly and gently with water for 15-20 min.

•Remove contact lenses, if present, after first 5 min. then continue rinsing eye.

•Call a poison control center or doctor for treatment advice.

**IF ON SKIN:** • Take off contaminated clothing.

Rinse skin immediately with plenty of water for 15-20 min.
Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** •Call a poison control center or doctor immediately for advice.

•Do not induce vomiting unless told to do so by a poison control center or doctor.
•How person sin a class of water if able to swallow. Do not give enothing by mouth

•Have person sip a glass of water if able to swallow. 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 mouth-to-mouth.

•Call a poison control center or doctor for advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

IN CASE OF AN EMERGENCY endangering life or property involving this product, call collect 989-636-4400.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be necessary.

#### SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER
CORROSIVE
CAUSES IRREVERSIBLE EYE DAMAGE AND SKIN BURNS
MAY CAUSE ALLERGIC SKIN REACTION
HARMFUL IF INHALED
MAY BE FATAL IF ABSORBED THROUGH THE SKIN OR SWALLOWED

Do not get in eyes, on skin, or on clothing. Mixers, loaders and others exposed to this product must wear: long-sleeved shirt and long pants; chemical resistant gloves such as nitrile or butyl rubber; shoes plus socks; goggles and face shield; and chemical resistant apron. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow 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. Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly. This product may cause skin sensitization reactions in some people.

#### **ENVIRONMENTAL HAZARDS**

This chemical is toxic to fish and wildlife. 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. Do not contaminate water by cleaning of equipment or disposal of waste. Apply this pesticide only as specified on this label.

# STORAGE AND DISPOSAL PESTICIDE STORAGE

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

Do not apply this product in a way that will contact workers or other persons.

#### Label language for product supplied as powder in general packaging:

To maintain product quality, store at temperatures below 35°C. Keep container tightly closed when not in use.

#### Label language for product supplied in water soluble packaging:

To maintain product quality, store at temperatures below 35°C. Keep container tightly closed when not in use. Do not remove from container except for immediate use. DO NOT remove the product from water soluble bag.

#### Label language for product supplied in water soluble packaging with additional outer-wrapper:

To maintain product quality, store at temperatures below 35°C. Keep container tightly closed when not in use. Do not remove from container except for immediate use. When ready to use REMOVE outer packaging. DO NOT remove the product from water soluble bag.

# Label language for product supplied in canisters for feeder device:

To maintain product quality, store at temperatures below 35°C. Keep canister (jar) closed and in original packaging until ready to use in feeder device.

#### PESTICIDE DISPOSAL

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide 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 Handling**

## Label language for product supplied as powder in general packaging:

Non refillable container. Do not reuse or refill container. Completely empty into application equipment by shaking and tapping sides and bottom of container to loosen clinging particles. Then offer empty container for recycling or reconditioning for pesticides if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

#### Label language for product supplied in water soluble packaging:

Non refillable container. Do not reuse or refill container. Completely empty into application equipment by shaking and tapping sides and bottom of container to loosen clinging particles. Then offer empty container for recycling or reconditioning for pesticides if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

**Non refillable container.** Do not reuse or refill container or bag liners. Completely empty container and bag liners by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into mix tank. Then offer for recycling of pesticides if available, or dispose of container and liners in a sanitary landfill or by other procedures approved by state and local authorities.

#### Label language for product supplied in canisters for feeder device:

**Non refillable container.** Do not reuse or refill canisters. Completely empty canisters by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into mix tank. Rinse canister three times, then offer for recycling of pesticides if available, or dispose of canisters in a sanitary landfill or by other procedures approved by state and local authorities.

If feeder device is contaminated and cannot be reused, dispose of it in the manner required for canisters.

#### **NOTICE:**

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions. SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Date of Manufacture: location for date

EPA Reg. No. 464-8135

EPA Est. No. establishment number

#### **DIRECTIONS FOR USE**

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

#### **ELECTRODEPOSITION SYSTEMS**

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the tankside control of bacteria, fungi, and algae in electrodeposition systems and associated rinse systems. Dispense product at point of uniform mixing. Add 70-500 ppm product to the system depending upon severity of contamination. Repeat treatment as needed to maintain control. A change of frequency of treatment may be required depending upon the rate of dilution of the preservative with the makeup fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc.

**NOTE**: Regardless of the manner of incorporation, the total active ingredient level in the system should at no time exceed 35 ppm (equivalent to 500 ppm product).

# Label language for product supplied in water soluble packaging:

For the tankside control of bacteria, fungi, and algae in electrodeposition systems and associated rinse systems. Dispense product at point of uniform mixing. Add one bag of product to every 2,400-17,000 gallons of fluid in the system depending upon severity of contamination. Repeat treatment as needed to maintain control. A change of frequency of treatment may be required depending upon the rate of dilution of the preservative with the makeup fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc.

**NOTE**: Regardless of the manner of incorporation, the total active ingredient level in the system should at no time exceed 35 ppm (equivalent to 500 ppm product).

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the tankside control of bacteria, fungi, and algae in electrodeposition systems and associated rinse systems. Dispense product at point of uniform mixing. Add one bag of product to every 2,400-17,000 gallons of fluid in the system depending upon severity of contamination. Repeat treatment as needed to maintain control. A change of frequency of treatment may be required depending upon the rate of dilution of the preservative with the makeup fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc.

**NOTE**: Regardless of the manner of incorporation, the total active ingredient level in the system should at no time exceed 35 ppm (equivalent to 500 ppm product).

#### Label language for product supplied in canisters for feeder device:

For the tankside control of bacteria, fungi, and algae in electrodeposition systems and associated rinse systems the product may be used with the appropriate feeder. Place canister(s) in side stream feeder device. Canisters may be stacked in feeder device to achieve desired dosing level. Add one or more canisters to obtain 70-500 ppm product in the system depending upon severity of contamination. Repeat treatment as needed to maintain control. A change of frequency of treatment may be required depending upon the rate of dilution of the preservative with the makeup fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc.

**NOTE**: Regardless of the manner of incorporation, the total active ingredient level in the system should at no time exceed 35 ppm (equivalent to 500 ppm product).

#### TREATMENT OF ELECTRODEPOSITION PAINT COMPONENTS

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of bacteria, fungi, and algae in electrodeposition paint components. Add product to the resin, pigment, or other component of the electrodeposition paint at a level to ensure that the final use-dilution fluid will contain 70-500 ppm product.

#### Label language for product supplied in water soluble packaging:

For the control of bacteria, fungi, and algae in electrodeposition paint components. Add product to the resin, pigment, or other component of the electrodeposition paint at a level to ensure that the final use-dilution fluid will contain 70-500 ppm product (one bag of product to every 2,400-17,000 gallons of use-dilution fluid).

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of bacteria, fungi, and algae in electrodeposition paint components. Add product to the resin, pigment, or other component of the electrodeposition paint at a level to ensure that the final use-dilution fluid will contain 70-500 ppm product (one bag of product to every 2,400-17,000 gallons of use-dilution fluid).

#### CONVEYOR LUBRICANT MICROBIAL CONTROL

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of bacteria and fungi in the manufacture and use of water-based conveyer lubricants. Dispense into the conveyer lubricant concentrate and uniformly disperse throughout the fluid or dispense into the conveyer lubricant usedilution feed line and uniformly spray onto the conveyor.

Note: A solution of product may be made on site for dosing the system.

**FLUID CONCENTRATE**: Product should be added to the conveyor lubricant concentrate at a level to ensure that the final use-dilution will contain 45-215 ppm of product.

**USE-DILUTION FLUID**: Grossly contaminated systems must be cleaned before treatment is begun. Add 45-215 ppm of product to the use-diluted fluid depending on severity of contamination. Add additional doses as needed to maintain the system.

#### Label language for product supplied in water soluble packaging:

For the control of bacteria and fungi in the manufacture and use of water-based conveyer lubricants. Dispense into the conveyer lubricant concentrate and uniformly disperse throughout the fluid or dispense into the conveyer lubricant usedilution feed line using a metering pump and uniformly spray onto the conveyor.

Note: A solution of product may be made on site for dosing the system.

**FLUID CONCENTRATE**: Product should be added to the conveyor lubricant concentrate at a level to ensure that the final use-dilution will contain 45-215 ppm of product (one bag per 5,500-28,000 gallons of use dilution fluid). **USE-DILUTION FLUID**: Grossly contaminated systems must be cleaned before treatment is begun. Add one bag per 5,500-28,000 gallons of use dilution fluid to the fluid depending on severity of contamination. Add additional doses as needed to maintain the system.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of bacteria and fungi in the manufacture and use of water-based conveyer lubricants. Dispense into the conveyer lubricant concentrate and uniformly disperse throughout the fluid or dispense into the conveyer lubricant usedilution feed line using a metering pump and uniformly spray onto the conveyor.

Note: A solution of product may be made on site for dosing the system.

**FLUID CONCENTRATE**: Product should be added to the conveyor lubricant concentrate at a level to ensure that the final use-dilution will contain 45-215 ppm of product (one bag per 5,500-28,000 gallons of use dilution fluid). **USE-DILUTION FLUID**: Grossly contaminated systems must be cleaned before treatment is begun. Add one bag per 5,500-28,000 gallons of use dilution fluid to the fluid depending on severity of contamination. Add additional doses as needed to maintain the system.

#### METALWORKING FLUIDS

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of bacteria, fungi, and microbial biofilms in aqueous based metalworking fluids. The product should be dispensed into the use-dilution metalworking fluid and uniformly dispersed throughout the system. Add 55-250 ppm of product to the fluid depending on the severity of contamination.

#### Label language for product supplied in water soluble packaging:

For the control of bacteria, fungi, and microbial biofilms in aqueous based metalworking fluids. The product should be dispensed into the use-dilution metalworking fluid and uniformly dispersed throughout the system. Add one bag per 4,800-21,800 gallons of fluid depending on the severity of contamination.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of bacteria, fungi, and microbial biofilms in aqueous based metalworking fluids. The product should be dispensed into the use-dilution metalworking fluid and uniformly dispersed throughout the system. Add one bag per 4,800-21,800 gallons of fluid depending on the severity of contamination.

# Label language for product supplied in canisters for feeder device:

For the control of bacteria, fungi, and microbial biofilms in aqueous based metalworking fluids. The product should be used with the appropriate feeder and dispensed uniformly into the use-dilution metalworking fluid. Place canister(s) in side stream feeder device. Canisters may be stacked in feeder device to achieve desired dosing level. Add one or more canisters to obtain 55-250 ppm product in the system depending upon severity of contamination.

#### HYDRAULIC FLUIDS

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For use in the manufacture and use of high water-based hydraulic fluids and invert emulsion hydraulic fluids. The product should be dispensed into the use-dilution of the hydraulic fluid and uniformly dispersed throughout the system. Add 215-450 ppm of product to the fluid depending on the severity of contamination.

#### Label language for product supplied in water soluble packaging:

For use in the manufacture and use of high water-based hydraulic fluids and invert emulsion hydraulic fluids. The product should be dispensed into the use-dilution of the hydraulic fluid and uniformly dispersed throughout the system. Add one bag per 2,600-5,500 gallons of fluid depending on the severity of contamination.

#### Label language for product supplied in water soluble packaging with additional wrapper:

For use in the manufacture and use of high water-based hydraulic fluids and invert emulsion hydraulic fluids. The product should be dispensed into the use-dilution of the hydraulic fluid and uniformly dispersed throughout the system. Add one bag per 2,600-5,500 gallons of fluid depending on the severity of contamination.

#### POLYMER LATEX PRESERVATION

Not registered for this use in the State of California - Optional

# Label language for product supplied as powder in general packaging:

For the control of bacteria and fungi in the manufacture and storage of synthetic and natural polymer latices including: acrylic, styrene/butadiene, carboxylated styrene/butadiene, ethylene/vinyl acetate; biopolymers intended for industrial use, such as a xanthum gum, gum arabic, guar gum, protein-derived polymers, starches, casein-derived polymers latices; and solution polymers. Add 90-700 ppm of product to the emulsion or solution.

**NOTE**: To insure uniform mixing, add product to latex or solutions slowly with agitation. The actual required concentrations will depend upon such factors as the specific substance to be treated, frequency of repeated microbial contamination expected, and level of production required.

#### Label language for product supplied in water soluble packaging:

For the control of bacteria and fungi in the manufacture and storage of synthetic and natural polymer latices including: acrylic, styrene/butadiene, carboxylated styrene/butadiene, ethylene/vinyl acetate; biopolymers intended for industrial use, such as a xanthum gum, gum arabic, guar gum, protein-derived polymers, starches, casein-derived polymer latices; and solution polymers. Add one bag per 14,300-111,000 pounds of emulsion or solution to achieve 90-700 ppm product in the emulsion or solution.

**NOTE**: To insure uniform mixing, add product to latex or solutions slowly with agitation. The actual required concentrations will depend upon such factors as the specific substance to be treated, frequency of repeated microbial contamination expected, and level of production required.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of bacteria and fungi in the manufacture and storage of synthetic and natural polymer latices including: acrylic, styrene/butadiene, carboxylated styrene/butadiene, ethylene/vinyl acetate; biopolymers intended for industrial use, such as a xanthum gum, gum arabic, guar gum, protein-derived polymers, starches, casein-derived polymer latices; and solution polymers. Add one bag per 14,300-111,000 pounds of emulsion or solution to achieve 90-700 ppm product in the emulsion or solution.

**NOTE**: To insure uniform mixing, add product to latex or solutions slowly with agitation. The actual required concentrations will depend upon such factors as the specific substance to be treated, frequency of repeated microbial contamination expected, and level of production required.

#### COMMERCIAL PHOTOPROCESSING SYSTEM PRESERVATION

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of microbial biofilm formation or accumulation in filters and ion exchange resin tanks of commercial photoprocessing systems. The product should be dispensed into the final rinse or used water collection tank. Use 53-107 ppm of product followed by subsequent maintenance dosages as needed.

#### Label language for product supplied in water soluble packaging:

For the control of microbial biofilm formation or accumulation in filters and ion exchange resin tanks of commercial photoprocessing systems. The product should be dispensed into the final rinse or used water collection tank. Use one bag per 11,200-22,600 gallons of fluid followed by subsequent maintenance dosages as needed.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of microbial biofilm formation or accumulation in filters and ion exchange resin tanks of commercial photoprocessing systems. The product should be dispensed into the final rinse or used water collection tank. Use one bag per 11,200-22,600 gallons of fluid followed by subsequent maintenance dosages as needed.

#### METAL CLEANING FLUID PRESERVATION

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For use in the manufacture and use of alkaline, acid and emulsion-based metal cleaning fluids typically used in electroplating, phosphatizing, galvanizing, and general metal cleaning operations. For addition to a metal cleaning concentrate, add product at a level to ensure that the final use-dilution fluid will contain 90-350 ppm product. For direct addition to a fouled system, add 90-350 ppm product to the use-dilution metal cleaning fluid every 3-4 weeks. A higher dosage range and/or increased frequency of treatment may be required depending upon rate of dilution of the preservative with make-up fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc. The preservative should be dispensed into the use-dilution metal cleaning fluid and uniformly dispersed throughout the system

# Label language for product supplied in water soluble packaging:

For use in the manufacture and use of alkaline, acid and emulsion-based metal cleaning fluids typically used in electroplating, phosphatizing, galvanizing, and general metal cleaning operations. For addition to a metal cleaning concentrate, add product at a level to ensure that the final use-dilution fluid will contain 90-350 ppm product (one bag per 3,350-13,400 gallons of fluid). For direct addition to a fouled system, add one bag per 3,350-13,400 gallons of fluid every 3-4 weeks. A higher dosage range and/or increased frequency of treatment may be required depending upon rate of dilution of the preservative with make-up fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc. The preservative should be dispensed into the use-dilution metal cleaning fluid and uniformly dispersed throughout the system

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For use in the manufacture and use of alkaline, acid and emulsion-based metal cleaning fluids typically used in electroplating, phosphatizing, galvanizing, and general metal cleaning operations. For addition to a metal cleaning concentrate, add product at a level to ensure that the final use-dilution fluid will contain 90-350 ppm product (one bag per 3,350-13,400 gallons of fluid). For direct addition to a fouled system, add one bag per 3,350-13,400 gallons of fluid every 3-4 weeks. A higher dosage range and/or increased frequency of treatment may be required depending upon rate of dilution of the preservative with make-up fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc. The preservative should be dispensed into the use-dilution metal cleaning fluid and uniformly dispersed throughout the system.

#### Label language for product supplied in canisters for feeder device:

For use in the manufacture and use of alkaline, acid and emulsion-based metal cleaning fluids typically used in electroplating, phosphatizing, galvanizing, and general metal cleaning operations. The product should be used with the appropriate feeder and dispensed uniformly into the use-dilution metal cleaning fluid. Place canister(s) in side stream feeder device. Canisters may be stacked in feeder device to achieve desired dosing level. Add one or more canisters every 3-4 weeks to obtain 90-350 ppm product in the system depending upon severity of contamination. A higher dosage range and/or increased frequency of

treatment may be required depending upon rate of dilution of the preservative with make-up fluid, the nature and severity of contamination, level of control required, filtration effectiveness, system design, etc.

#### PHOTOPLATE PROCESSING, FOUNTAIN SOLUTIONS, AND INK/INK COMPONENTS

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of bacteria, fungi, and microbial biofilms in photoplate processing chemicals, fountain solutions, and printing inks and ink components. The product should be added to achieve 215-640 ppm. The product should be added to fountain solution concentrates at a level to ensure that the final use-dilution will contain 215-640 ppm product. To insure uniform mixing, add the product to latex or solution slowly with agitation. The actual concentrations required will depend upon such factors as the specific substance to be treated, frequency of repeated microbial contamination expected and level of protection required.

#### Label language for product supplied in water soluble packaging:

For the control of bacteria, fungi, and microbial biofilms in photoplate processing chemicals, fountain solutions, and printing inks and ink components. The product should be added to achieve 215-640 ppm. The product should be added to fountain solution concentrates at a level to ensure that the final use-dilution will contain 215-640 ppm product. To insure uniform mixing, add the product to latex or solution slowly with agitation. The actual concentrations required will depend upon such factors as the specific substance to be treated, frequency of repeated microbial contamination expected and level of protection required.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of bacteria, fungi, and microbial biofilms in photoplate processing chemicals, fountain solutions, and printing inks and ink components. The product should be added to achieve 215-640 ppm. The product should be added to fountain solution concentrates at a level to ensure that the final use-dilution will contain 215-640 ppm product. To insure uniform mixing, add the product to latex or solution slowly with agitation. The actual concentrations required will depend upon such factors as the specific substance to be treated, frequency of repeated microbial contamination expected and level of protection required.

#### PAINT AND COATING PRESERVATION

Not registered for this use in the State of California - Optional

## Label language for product supplied as powder in general packaging:

Recommended as an in-container preservative for the control of bacteria and fungi in water-based coatings such as paper and wood coatings and paints used for architectural product finishes, and special-purpose coatings. Add 90-350 ppm of product at a point of uniform mixing.

#### Label language for product supplied in water soluble packaging:

Recommended as an in-container preservative for the control of bacteria and fungi in water-based coatings such as paper and wood coatings and paints used for architectural product finishes, and special-purpose coatings. Add 90-350 ppm of product at a point of uniform mixing.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

Recommended as an in-container preservative for the control of bacteria and fungi in water-based coatings such as paper and wood coatings and paints used for architectural product finishes, and special-purpose coatings. Add 90-350 ppm of product at a point of uniform mixing.

#### **BUILDING MATERIAL PRESERVATION**

Not registered for this use in the State of California - Optional

# Label language for product supplied as powder in general packaging:

Recommended as an in-container preservative for the control of bacteria and fungi in building materials such as mastics, caulks, joint cements, spackling, and grouting. Add 90-350 ppm of product at a point to ensure uniform mixing.

#### Label language for product supplied in water soluble packaging:

Recommended as an in-container preservative for the control of bacteria and fungi in building materials such as mastics, caulks, joint cements, spackling, and grouting. Add 90-350 ppm of product at a point to ensure uniform mixing.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

Recommended as an in-container preservative for the control of bacteria and fungi in building materials such as mastics, caulks, joint cements, spackling, and grouting. Add 90-350 ppm of product at a point to ensure uniform mixing.

#### COLORANTS, DISPERSED PIGMENTS OR MINERAL SLURRY PRESERVATION

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

Recommended for the control of microbial biofilms, bacteria and fungi in the manufacture and storage of colorants, dispersed pigments, or mineral slurries such as kaolin and montmorillite clays, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, magnesium silicate, and kieselguhr used in paint and paper productions. Add 90-350 ppm of product at a point of uniform mixing.

#### Label language for product supplied in water soluble packaging:

Recommended for the control of microbial biofilms, bacteria and fungi in the manufacture and storage of colorants, dispersed pigments, or mineral slurries such as kaolin and montmorillite clays, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, magnesium silicate, and kieselguhr used in paint and paper productions. Add 90-350 ppm of product at a point of uniform mixing.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

Recommended for the control of microbial biofilms, bacteria and fungi in the manufacture and storage of colorants, dispersed pigments, or mineral slurries such as kaolin and montmorillite clays, titanium dioxide, calcium carbonate, calcium sulfate, barium sulfate, magnesium silicate, and kieselguhr used in paint and paper productions. Add 90-350 ppm of product at a point of uniform mixing.

#### ADHESIVE AND TACKIFIER PRESERVATION

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

Recommended as an in-container preservative for the control of bacteria and fungi in water-soluble and water-dispersed adhesives such as animal glues, vegetable glues, natural rubber latices, polyvinyl acetate, styrene butadiene and acrylic latices. Also recommended as a preservative for tackifiers derived from rosin and hydrocarbon resins. Add 90-350 ppm of product to the adhesive or tackifier.

# Label language for product supplied in water soluble packaging:

Recommended as an in-container preservative for the control of bacteria and fungi in water-soluble and water-dispersed adhesives such as animal glues, vegetable glues, natural rubber latices, polyvinyl acetate, styrene butadiene and acrylic latices. Also recommended as a preservative for tackifiers derived from rosin and hydrocarbon resins. Add 90-350 ppm of product to the adhesive or tackifier.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

Recommended as an in-container preservative for the control of bacteria and fungi in water-soluble and water-dispersed adhesives such as animal glues, vegetable glues, natural rubber latices, polyvinyl acetate, styrene butadiene and acrylic latices. Also recommended as a preservative for tackifiers derived from rosin and hydrocarbon resins. Add 90-350 ppm of product to the adhesive or tackifier.

#### INDUSTRIAL AND COMMERCIAL COOLING WATER SYSTEMS

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of microbial biofilms, bacteria, algae, and fungi, add 7.5-190 ppm of product at a point to ensure uniform mixing. Repeat if necessary to achieve control. Badly fouled systems should be cleaned before treatment is begun.

#### Label language for product supplied in water soluble packaging:

For the control of microbial biofilms, bacteria, algae, and fungi, add one bag per 6,300-160,000 gallons of water at a point to ensure uniform mixing. Repeat if necessary to achieve control. Badly fouled systems should be cleaned before treatment is begun.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of microbial biofilms, bacteria, algae, and fungi, add one bag per 6,300-160,000 gallons of water at a point to ensure uniform mixing. Repeat if necessary to achieve control. Badly fouled systems should be cleaned before treatment is begun.

#### Label language for product supplied in canisters for feeder device:

The product should be used with the appropriate feeder and dispensed uniformly into the water. Place canister(s) in side stream feeder device. Canisters may be stacked in feeder device to achieve desired dosing level. For the control of microbial biofilms, bacteria, algae, and fungi, add one or more canisters to obtain 7.5-190 ppm product in the system depending upon severity of contamination. Add product at a point in the system to ensure uniform mixing. Repeat if necessary to achieve control. Badly fouled systems should be cleaned before treatment is begun.

#### INDUSTRIAL WATER SYSTEMS

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of microbial biofilms, bacteria, algae, and fungi in industrial water systems including: industrial process water systems, brewery pasteurizers, can warmers, retort water systems, industrial scrubbing systems, hydrostatic sterilizer water systems, coal slurry systems, immersion ultrasonic tank water, laboratory equipment water baths and influent water filtration systems. Add 7.5-190 ppm product at some point in the system to insure uniform mixing. Badly fouled systems should be cleaned before treatment is begun.

## Label language for product supplied in water soluble packaging:

For the control of microbial biofilms, bacteria, algae, and fungi in industrial water systems including: industrial process water systems, brewery pasteurizers, can warmers, retort water systems, industrial scrubbing systems, hydrostatic sterilizer water systems, coal slurry systems, immersion ultrasonic tank water, laboratory equipment water baths and influent water filtration systems. Add one bag per 6,300-160,000 gallons of water at some point in the system to insure uniform mixing. Badly fouled systems should be cleaned before treatment is begun.

# Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of microbial biofilms, bacteria, algae, and fungi in industrial water systems including: industrial process water systems, brewery pasteurizers, can warmers, retort water systems, industrial scrubbing systems, hydrostatic sterilizer water systems, coal slurry systems, immersion ultrasonic tank water, laboratory equipment water baths and influent water filtration systems. Add one bag per 6,300-160,000 gallons of water at some point in the system to insure uniform mixing. Badly fouled systems should be cleaned before treatment is begun.

#### Label language for product supplied in canisters for feeder device:

For the control of microbial biofilms, bacteria, algae, and fungi in industrial water systems including: industrial process water systems, brewery pasteurizers, can warmers, retort water systems, industrial scrubbing systems, hydrostatic sterilizer water systems, coal slurry systems, immersion ultrasonic tank water, laboratory equipment water baths and influent water

filtration systems. The product should be used with the appropriate feeder and dispensed uniformly into the water. Place canister(s) in side stream feeder device. Canisters may be stacked in feeder device to achieve desired dosing level. Add one or more canisters to obtain 7.5-190 ppm product in the system depending on the severity of the contamination. Badly fouled systems should be cleaned before treatment is begun.

#### AIR WASHER SYSTEMS<mark>/PAINT SPRAY BOOTHS</mark>

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of microbial biofilms, bacteria, fungi, and algae which cause fouling in industrial air washer systems and paint spray booths. Add 7.5-190 ppm of product depending on the severity of the contamination. Repeat if necessary to achieve control. Badly fouled systems should be cleaned before treatment is begun.

NOTE: For use only in systems that maintain effective mist-eliminating components.

#### Label language for product supplied in water soluble packaging:

For the control of microbial biofilms, bacteria, fungi, and algae which cause fouling in industrial air washer systems and paint spray booths. Add one bag per 6,300-160,000 gallons of water depending on the severity of the contamination. Repeat if necessary to achieve control. Badly fouled systems should be cleaned before treatment is begun.

**NOTE**: For use only in systems that maintain effective mist-eliminating components.

## Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of microbial biofilms, bacteria, fungi, and algae which cause fouling in industrial air washer systems and paint spray booths. Add one bag per 6,300-160,000 gallons of water depending on the severity of the contamination. Repeat if necessary to achieve control. Badly fouled systems should be cleaned before treatment is begun.

**NOTE**: For use only in systems that maintain effective mist-eliminating components.

# Label language for product supplied in canisters for feeder device:

For the control of microbial biofilms, bacteria, fungi, and algae which cause fouling in industrial air washer systems and paint spray booths. The product should be used with the appropriate feeder and dispensed uniformly into the water. Place canister(s) in side stream feeder device. Canisters may be stacked in feeder device to achieve desired dosing level. Add one or more canisters to obtain 7.5-190 ppm product in the system depending on the severity of the contamination.

Repeat if necessary to achieve control. Badly fouled systems should be cleaned before treatment is begun.

NOTE: For use only in systems that maintain effective mist-eliminating components.

# AIR WASHER SYSTEMS/PAINT SPRAY BOOTHS

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of microbial biofilms, bacteria, fungi, and algae which cause fouling in industrial air washer systems and paint spray booths. Add 7.5-190 ppm of product depending on the severity of the contamination. Badly fouled systems should be cleaned before treatment is begun.

**NOTE**: For use only in systems that maintain effective mist-eliminating components.

#### Label language for product supplied in water soluble packaging:

For the control of microbial biofilms, bacteria, fungi, and algae which cause fouling in industrial air washer systems and paint spray booths. Add one bag per 6,300-160,000 gallons of water depending on the severity of the contamination. Badly fouled systems should be cleaned before treatment is begun.

**NOTE**: For use only in systems that maintain effective mist-eliminating components.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of microbial biofilms, bacteria, fungi, and algae which cause fouling in industrial air washer systems and paint spray booths. Add one bag per 6,300-160,000 gallons of water depending on the severity of the contamination. Badly fouled systems should be cleaned before treatment is begun.

**NOTE**: For use only in systems that maintain effective mist-eliminating components.

# Label language for product supplied in canisters for feeder device:

For the control of microbial biofilms, bacteria, fungi, and algae which cause fouling in industrial air washer systems and paint spray booths. The product should be used with the appropriate feeder and dispensed uniformly into the water. Place canister(s) in side stream feeder device. Canisters may be stacked in feeder device to achieve desired dosing level. Add one or more canisters to obtain 7.5-190 ppm product in the system depending on the severity of the contamination. Badly fouled systems should be cleaned before treatment is begun.

**NOTE**: For use only in systems that maintain effective mist-eliminating components.

#### **OIL FIELD INJECTION WATERS**

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of microbial biofilm-forming and sulfate-reducing bacteria in oil and gas field water systems, including enhanced recovery injection fluids, drilling, fracturing and completion fluids, slug treat with 14-70 ppm product depending on the severity of contamination.

#### Label language for product supplied in water soluble packaging:

For the control of microbial biofilm-forming and sulfate-reducing bacteria in oil and gas field water systems, including enhanced recovery injection fluids, drilling, fracturing and completion fluids, slug treat with 14-70 ppm product (one bag per 17,130-85,600 gallons of water) depending on the severity of contamination.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of microbial biofilm-forming and sulfate-reducing bacteria in oil and gas field water systems, including enhanced recovery injection fluids, drilling, fracturing and completion fluids, slug treat with 14-70 ppm product (one bag per 17,130-85,600 gallons of water) depending on the severity of contamination.

#### WOOD AND WOOD PRODUCTS

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the protection of wood and wood products, such as landscape timbers, fences, posts, pilings, cross ties, decks, and similar exterior structures from mold and mildew. Treat southern yellow pine, hemlock, ponderosa pine, and other soft woods with 690 - 4667 ppm product as an aqueous dip or pressure treatment for mold and mildew control. Thoroughly wet and allow to dry. A single application will afford protection for 12 weeks.

#### Label language for product supplied in water soluble packaging:

For the protection of wood and wood products, such as landscape timbers, fences, posts, pilings, cross ties, decks, and similar exterior structures from mold and mildew. Treat southern yellow pine, hemlock, ponderosa pine, and other soft woods with 690 - 4667 ppm product (one bag per 260-1700 gallons fluid) as an aqueous dip or pressure treatment for mold and mildew control. Thoroughly wet and allow to dry. A single application will afford protection for 12 weeks.

# Label language for product supplied in water soluble packaging with additional outer wrapper:

For the protection of wood and wood products, such as landscape timbers, fences, posts, pilings, cross ties, decks, and similar exterior structures from mold and mildew. Treat southern yellow pine, hemlock, ponderosa pine, and other soft woods with 690 - 4667 ppm product (one bag per 260-1700 gallons fluid) as an aqueous dip or pressure treatment for mold and mildew control. Thoroughly wet and allow to dry. A single application will afford protection for 12 weeks.

# ULTRA FILTRATION UNITS, CARBON BED FILTERS, AND NON-MEDICAL/NON-POTABLE REVERSE OSMOSIS SYSTEMS

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of microbial biofilms, bacteria and fungi in ultra filtration units and non-medical/non-potable reverse osmosis systems. Add 7.5-215 ppm of product into industrial ultra filtration or reverse osmosis systems by either continuous feed or periodic injection. Compatibility of the product with reverse osmosis membranes should be confirmed with membrane manufacturers. For the control of bacteria and fungi in carbon beds, add 7.5-215 ppm of product by either continuous or batch feed. Badly fouled systems should be cleaned before treatment is begun.

#### Label language for product supplied in water soluble packaging:

For the control of microbial biofilms, bacteria and fungi in ultra filtration units and non-medical/non-potable reverse osmosis systems. Add one bag per 6,300-160,000 gallons of water into industrial ultra filtration or reverse osmosis systems by either continuous feed or periodic injection. Compatibility of the product with reverse osmosis membranes should be confirmed with membrane manufacturers. For the control of bacteria and fungi in carbon beds, add one bag per 6,300-160,000 gallons of water by either continuous or batch feed. Badly fouled systems should be cleaned before treatment is begun.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of microbial biofilms, bacteria and fungi in ultra filtration units and non-medical/non-potable reverse osmosis systems. Add one bag per 6,300-160,000 gallons of water into industrial ultra filtration or reverse osmosis systems by either continuous feed or periodic injection. Compatibility of the product with reverse osmosis membranes should be confirmed with membrane manufacturers. For the control of bacteria and fungi in carbon beds, add one bag per 6,300-160,000 gallons of water by either continuous or batch feed. Badly fouled systems should be cleaned before treatment is begun.

#### Label language for product supplied in canisters for feeder device:

The product should be used with the appropriate feeder and dispensed uniformly into the water. Place canister(s) in side stream feeder device. Canisters may be stacked in feeder device to achieve desired dosing level. For the control of microbial biofilms, bacteria and fungi in ultra filtration units and non-medical/non-potable reverse osmosis systems. Add one or more canisters to obtain 7.5-215 ppm product in the system depending on the severity of the contamination. Compatibility of the product with reverse osmosis membranes should be confirmed with membrane manufacturers. For the control of bacteria and fungi in carbon beds, add one or more canisters to obtain 7.5-215 ppm product in the system depending on the severity of the contamination. Badly fouled systems should be cleaned before treatment is begun.

# INDUSTRIAL WASTEWATER TREATMENT SYSTEMS AND SEWAGE SYSTEMS Not registered for this use in the State of California - Optional

# Label language for product supplied as powder in general packaging:

For the control of microbial biofilms, bacteria, fungi, and algae in industrial wastewater treatment and sewage systems. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. Add 7.5-190 ppm of product to the system, depending on the severity of contamination. Badly fouled systems should be cleaned before treatment is begun.

#### Label language for product supplied in water soluble packaging:

For the control of microbial biofilms, bacteria, fungi, and algae in industrial wastewater treatment and sewage systems. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. Add one bag per 6,300-160,000 gallons of water in the system, depending on the severity of contamination. Badly fouled systems should be cleaned before treatment is begun.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of microbial biofilms, bacteria, fungi, and algae in industrial wastewater treatment and sewage systems. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. Add one bag per 6,300-160,000 gallons of water in the system, depending on the severity of contamination. Badly fouled systems should be cleaned before treatment is begun.

#### **PAPERMILLS**

#### Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of microbial biofilms, bacteria, algae and fungi, add product to the Beater, Hydropulper, or Fan or Broke Storage Pumps or some other point in the system to insure uniform mixing. Apply 0.09 to 0.32 lb of product per ton (dry basis) of pulp or paper produced as a slug dose. If needed, repeat daily. Badly fouled systems should be cleaned before initial treatment.

#### Label language for product supplied in water soluble packaging:

For the control of microbial biofilms, bacteria, algae and fungi, add product to the Beater, Hydropulper, or Fan or Broke Storage Pumps or some other point in the system to insure uniform mixing. Apply one bag per 3 to 10.6 tons (dry basis) of pulp or paper produced as a slug dose. If needed, repeat daily. Badly fouled systems should be cleaned before initial treatment.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of microbial biofilms, bacteria, algae and fungi, add product to the Beater, Hydropulper, or Fan or Broke Storage Pumps or some other point in the system to insure uniform mixing. Apply one bag per 3 to 10.6 tons (dry basis) of pulp or paper produced as a slug dose. If needed, repeat daily. Badly fouled systems should be cleaned before initial treatment.

# IN-CONTAINER PRESERVATION

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

Recommended as an in-container preservative for the control of bacteria and fungi in industrial and household consumer products, including all purpose liquid cleaners, furniture and floor polishes, and anti-tarnish products, air fresheners, carpet shampoos and pre-spotters. Add 0.09 - 0.32 pounds of product to each 1000 pound (453.6 kilogram) of product to be treated.

For the control of bacteria and fungi in liquid dishwashing detergents, automotive appearance products, such as cleaners, waxes and polishes, and liquid laundry products, such as fabric softeners, laundry detergents, pre-spotters and spray starch. Add 0.09-0.21 pounds product to each 1000 pound (453.6 kilogram) of product to be treated. To insure uniform distribution, slowly disperse KATHON 7 G into product with agitation. Mix thoroughly until evenly dispersed throughout the product.

For the control of bacteria and fungi in aqueous raw materials such as silicone emulsions and surfactants used in industrial and household consumer products and in package utility products, such as pre-moistened sponges and mops. Add 0.09 to 0.32 pound product to each 1000 pound (453.6 kilogram) of silicone emulsion, surfactant, or water used to pre-moisten sponges and mops.

#### Label language for product supplied in water soluble packaging:

Recommended as an in-container preservative for the control of bacteria and fungi in industrial and household consumer products, including all purpose liquid cleaners, furniture and floor polishes, and anti-tarnish products, air fresheners, carpet shampoos and pre-spotters. Add 0.09-0.32 pounds of product to each 1000 pound (453.6 kilogram) of product to be treated.

For the control of bacteria and fungi in liquid dishwashing detergents, automotive appearance products, such as cleaners, waxes and polishes, and liquid laundry products, such as fabric softeners, laundry detergents, pre-spotters and spray starch. Add 0.09-0.21 pounds product to each 1000 pound (453.6 kilogram) of product to be treated. To insure uniform distribution, slowly disperse KATHON 7 G into product with agitation. Mix thoroughly until evenly dispersed throughout the product.

For the control of bacteria and fungi in aqueous raw materials such as silicone emulsions and surfactants used in industrial and household consumer products and in package utility products, such as pre-moistened sponges and

mops. Add 0.09 to 0.32 pound product to each 1000 pound (453.6 kilogram) of silicone emulsion, surfactant, or water used to pre-moisten sponges and mops.

# Label language for product supplied in water soluble packaging with additional outer wrapper:

Recommended as an in-container preservative for the control of bacteria and fungi in industrial and household consumer products, including all purpose liquid cleaners, furniture and floor polishes, and anti-tarnish products, air fresheners, carpet shampoos and pre-spotters. Add 0.09 - 0.32 pounds of product to each 1000 pound (453.6 kilogram) of product to be treated.

For the control of bacteria and fungi in liquid dishwashing detergents, automotive appearance products, such as cleaners, waxes and polishes, and liquid laundry products, such as fabric softeners, laundry detergents, pre-spotters and spray starch. Add 0.09-0.21 pounds product to each 1000 pound (453.6 kilogram) of product to be treated. To insure uniform distribution, slowly disperse KATHON 7 G into product with agitation. Mix thoroughly until evenly dispersed throughout the product.

For the control of bacteria and fungi in aqueous raw materials such as silicone emulsions and surfactants used in industrial and household consumer products and in package utility products, such as pre-moistened sponges and mops. Add 0.09 to 0.32 pound product to each 1000 pound (453.6 kilogram) of silicone emulsion, surfactant, or water used to pre-moisten sponges and mops.

#### SILICONE AND SURFACTANT CONCENTRATES:

Not registered for this use in the State of California - Optional

#### Label language for product supplied as powder in general packaging:

For the control of bacteria and fungi in silicone and surfactant concentrates. Add product at a level to ensure the final use-dilution product will contain 85-320 ppm of product.

#### Label language for product supplied in water soluble packaging:

For the control of bacteria and fungi in silicone and surfactant concentrates. Add product at a level to ensure the final use-dilution product will contain 85-320 ppm of product.

#### Label language for product supplied in water soluble packaging with additional outer wrapper:

For the control of bacteria and fungi in silicone and surfactant concentrates. Add product at a level to ensure the final use-dilution product will contain 85-320 ppm of product.