

04/21/2008

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

April 21, 2008

Vijay Pendse Manager, Quality Control Aurora Specialty Chemistries 1520 Lake Lansing Road Lansing, MI 48912

Subject: Product Name: Predator 1020 EPA File Symbol: 47091-13 Application Date: 31-Jan-2008 EPA Receipt Date: 11-Feb-2008

Dear Mr. Pendse:

The following amends, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended are acceptable with the following comments:

Proposed amendments:

- Alternate confidential statement of formula (CSF). See CSF dated 1/30/08;
- Label revisions

General comments:

Make the following changes on the alternate CSF:

- 1. The correct spelling of the stabilizer is "butylated hydroxytoluene."
- 2. In block #14, change the upper limit to 14.9% and the lower limit to 13.5% for sodium chloride.
- 3. Change the certified limits for xanthan gum in block #14 as follows: Upper limit to 0.61% and the lower limit to 0.50%.

Labeling comments:

Make the following label revisions:

Revise the precautionary statement to read as follows:

PRECAUTIONARY STATEMENT HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

CORRISIVE: Causes irreversible eye damage. May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Do not get in eye, or on skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Use with adequate ventilation. Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

 Add the following statement immediately following Directions For Treating Pulp and Paper Mill Systems:

"THIS PRODUCT IS ONLY FOR USE IN NON-FOOD APPLICATION, such as Brown paper Mills, Sheet for Corrugated Board, Kraft paper, Newsprint and similar paper/ paperboard not intended for food contact."

Other comments:

Submit three (3) copies of the labeling bearing the above revisions. A copy will be stamped and return to you for your records. If you have further questions concerning this letter, please contact me by telephone at (703) 308-6422 or by e-mail at <u>heyward.adam@epa.gov</u> or Stacey Grigsby by telephone at (703) 305-6440 or by email at <u>grigsby.stacey@epa.gov</u> during the hours of 8:00 am to 4:00 pm EST. When submitting information or data in response to this letter, a copy of this letter should accompany the submission to facilitate processing.

Sincerely,

Adam Heyward Product Manager (34) Regulatory Branch II Antimicrobials Division (7510P)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

CORROSIVE CAUSES IRREVERSIBLE EYE DAMAGE MAY BE FATAL IF SWALLOWED HARMFUL IF INHALED OR ABSORBED THROUGH SKIN CAUSES SKIN BURNS PROLONGED OR FREQUENTLY REPEATED SKIN CONTACT MAY CAUSE ALLERGIC REACTIONS IN SOME INDIVIDUALS

Do not get in eyes, on skin, or on clothing. In case of contact immediately rinse skin with plenty of water. Get medical attention if irritation persists. Use with adequate ventilation. Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

P.)NAL PROTECTION EQUIPMENT (PPE):

-Appricators and other handlers must wear:

-Coveralls worn over long sleeved shirt and long pants.

-Chemical resistant footwear plus socks.

-Goggles or face shield.

-Chemical-resistant gloves (such as barrier laminate, butyl rubber, neoprene rubber, nitrile rubber, polyvinyl chloride (PVC and viton). -For mixing/loading: Wear a chemical resistant apron -For cleaning equipment: Wear a chemical resistant apron

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

| User | Safety | Recommendations |
|------|--------|-----------------|
|------|--------|-----------------|

Users should wash hands before 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 personal protective equipment "mmediately after handling this product. Wash outside of

ves before removing. As soon as possible wash

General Precautions and Restrictions

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

WARRANTY

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the tabel when used in accordance with tabel directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to tabel instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller, and Buyer assumes the risk of any such use.

PREDATOR 1020

DBNPA

A MICROBIOCIDAL BACTERICIDE, FUNGICIDE, ALGAECIDE AND SLIMICIDE, USED IN TREATING RECIRCULATING COOLING WATER IN INDUSTRIAL COOLING SYSTEMS, PAPER MILLS, BREWERY PASTEURIZER WATER, METALWORKING CUTTING FLUIDS, NON-POTABLE REVERSE OSMOSIS SYSTEMS, ENHANCED OIL RECOVERY SYSTEMS, AIR-WASHER SYSTEMS, INDUSTRIAL PRESERVATION APPLICATIONS AND PUBLICLY-OWNED TREATMENT WORKS.

| ACTIVE INGREDIENT: | 2,2-Dibromo-3-nitrilopropionamide | 20% |
|--------------------|-----------------------------------|------|
| INERT INGREDIENTS: | | 80% |
| | TOTAL: | 100% |

9.6 pounds PREDATOR 1020 liquid per gallon.

DANGER

See side panels for additional precautionary statements

| | FIRST AID |
|---------------------------|--|
| lf in eyes | Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. |
| If inhaled | Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. |
| lf on skin or clothing | Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. |
| If swallowed | Call poison control center, or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person |
| poison con YOU MA | duct container or label with you when calling a trol center or doctor, or going for treatment. Y ALSO CONTACT 1-800-424-9300 FOR CY MEDICAL TREATMENT INFORMATION. |
| "Probable m | NOTE TO PHYSICIAN ucosal damage may contraindicate the use of gastric lavage." |

WASH THOROUGHLY AFTER HANDLING

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of waste. 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.

CHEMICAL AND PHYSICAL HAZARDS

Reaction with strong reducing agents may be explosive. Avoid misting.

STORAGE AND DISPOSAL

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

STORAGE

Store in a dark, cool, dry, well-ventilated area, not above 104°F (40°C), in well-closed original containers, away from energy sources, combustible organic materials, oxidizers and moisture. 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

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SPILLS

When handling or dealing with spills, use impact-resistant goggles with side shields, or face shield; wear body-covering clothes, including impervious rubber gloves and boots; use a respirator if misting occurs. Cover wet spills with 10% sodium bicarbonate solution, water and then an inert absorbent before sweeping up and disposing as described for pesticide disposal. If drum contents are contaminated or decomposing, isolate unsealed drum in the open or in a well-ventilated area; flood with 10% sodium bicarbonate solution and large volumes of water if necessary.

> KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE TO MAINTAIN PRODUCT QUALITY, STORE IN THE DARK AT TEMPERATURES BELOW 104°F (40°C). DO NOT SHIP WITH FOOD, FEEDS, DRUGS, OR CLOTHING DO NOT SMOKE, DRINK, OR EAT WHEN HANDLING

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Read entire label and use strictly in accordance with precautionary statements and directions.

DIRECTIONS FOR TREATING INDUSTRIAL RECIRCULATING COOLING WATER IN INDUSTRIAL COOLING SYSTEMS

NOTE: Add PREDATOR 1020 separately to the system. Do not mix it with other additives, so as to avoid decomposition of PREDATOR 1020 due to the high pH of many additive formulations.

Add PREDATOR 1020 to the basin (or any other point of uniform mixing). Addition should be made via a metering pump; it may be continuous or intermittent, depending on the severity of the contamination when treatment is begun, and the in-system retention time. Optimum performance with this product is achieved by continuous or intermittent treatment. If "shock" treatment is used, the blowdown should be discontinued for 24-48 hours.

FOR CONTROL OF BACTERIA

Add (0.12 – 1.22 fluid ounces) (1.2 –11.9 ppm) of PREDATOR 1020 / 1000 gal. of water in the system depending on the severity of contamination.

INTERMITTENT OR SLUG METHOD

Initial Dose: When the system is noticeably fouled, add (0.61 - 1.22 fluid ounces) (6.0 - 11.9 ppm) of PREDATOR 1020 / 1000 gal. of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add (0.3 - 1.22 fluid ounces) (3.0 - 11.9 ppm) of PREDATOR 1020 / 1000 gal. of water in the system every 4 days, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD

Initial Dose: When the system is noticeably fouled, add (0.61 – 1.22 fluid ounces) (6.0 – 11.9 ppm) of PREDATOR 1020 / 1000 gal. of water in the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of (0.12 – 0.61 fluid ounces) (1.2 – 6.0 ppm) of PREDATOR 1020 / 1000 gal. of water in the system lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

FOR CONTROL OF FUNGI AND ALGAE

Add (3.71 - 12.16 fluid ounces) (36.2 - 118.5 ppm) of PREDATOR 1020 / 1000 gal. of water in the system, depending on the severity of contamination. INTERMITTENT OR SLUG METHOD

Initial Dose: When the system is noticeably fouled, add (6.1 - 12.2 fluid ounces) (60.0 -118.5 ppm) of PREDATOR 1020 / 1000 gal, of water in the system, Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add (3.7 - 12.2 fluid ounces) (36.2 - 118.5 ppm) of PREDATOR 1020 / 1000 gal. of water in the system daily, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun. CONTINUOUS FEED METHOD

Initial Dose: When the system is noticeably fouled, add (6.1 - 12.2 fluid ounces) (60.0 -118.5 ppm) 0.048-0.095 gal.) of PREDATOR 1020 / 1000 gal. of water in the system. Subsequent Dose: Maintain this treatment level by pumping a continuous feed of (3.7 -

12.2 fluid ounces) (36.2 - 118.5 ppm) (0.029-0.095 gal.) of PREDATOR 1020 / 1000 gal. of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

DIRECTIONS FOR TREATING PULP AND PAPER MILL SYSTEMS

NOTE: Add PREDATOR 1020 separately to the system. Do not mix it with other additives. so as to avoid decomposition of PREDATOR 1020 due to the high pH of many additive formulations. For the control of slime-forming bacterial, fungal, and yeast growth in pulp, paper and paperboard mills add PREDATOR 1020 at levels of (0.15-0.50 lb./ton) (dry) of pulp or paper produced. Addition can be continuous or intermittent, depending upon the type of system and the severity of contamination. Addition is via a metering pump at a pint in the system that will ensure uniform distribution of PREDATOR 1020 in the mass J fiber and water, such as the beaters, Jordan inlet or discharge, broke chests, furnish chests, save-alls and white-water tanks. Heavily fouled systems must first be boiled out, then treated with (0.15-0.35 lb.) of PREDATOR 1020 /ton (dry) of paper or pulp as necessary for control. Moderately fouled systems should be treated continuously with (0.35-0.50 lb.) of PREDATOR 1020 /ton (dry) of paper or pulp until the slime accumulation is controlled. Subsequent rates can then be reduced to (0.15-0.35 lb.) of PREDATOR 1020 /ton (dry) of paper on a continuous or intermittent basis as needed for control. Dislodged slime may cause breaks in the paper and a clean-up of the paper machine may be advisable.

Slightly fouled systems should be treated continuously with (0.15-0.35 lb.) of PREDATOR 1020 /ton (dry) of paper or pulp, until the slime is controlled, then added on

intermittent basis to maintain control.

DIRECTIONS FOR TREATING NON-POTABLE REVERSE OSMOSIS SYSTEMS

For controlling bacteria, fungi and algae slimes in non-potable Reverse Osmosis systems and peripheral equipment, add PREDATOR 1020 to the system inlet water or before any other contamination area ahead of the Reverse Osmosis unit. PREDATOR 1020 should be added with a metering pump on an intermittent basis depending on the severity of contamination and the guidelines specified by the membrane manufacturer for PREDATOR 1020.

Add PREDATOR 1020 at the rate of (0.12 - 12.3 fluid ounces) (0.01 to 1.0 lbs) (1.2 to 120 ppm) per 1000 gals of feedwater. During use of PREDATOR 1020 both permeate and reject waters should be directed to the drain. Once treatment is completed, rinsing with feedwater should continue until conductivity values in the permeate are at or below values before treatment with PREDATOR 1020, Badly fouled systems must be cleaned before treatment is begun.

SOR CONTROL OF BACTERIA

itial Dose: When the system is noticeably fouled, add PREDATOR 1020 at the rate of Minimum treatment intervals should be 15 minutes. Repeat until control is achieved or as

specified by guidelines recommended by the membrane manufacturer. Subsequent Dose: When microbial control is achieved, add PREDATOR 1020 at the rate of (0.31 – 1.2 fluid ounces) (0.025 to 0.1 lb) (3.0 to 12 ppm) per 1000 gals of feedwater as

needed to maintain control or as specified by guidelines recommended by the membrane manufacturer

FOR CONTROL OF FUNGI AND ALGAE

Initial Dose: When the system is noticeably fouled, add PREDATOR 1020 at the rate of (6.2 - 12.2 fluid ounces) (0.5 to 1.0 lb) (60 to 120 ppm) per 1000 gals of feedwater. Minimum treatment intervals should be 15 minutes. Repeat until control is achieved or as specified by guidelines recommended by the membrane manufacturer

Subsequent Dose: When microbial control is achieved, add PREDATOR 1020 at the rate of (3.7 - 12.2 fluid ounces) (0.3 to 1.0 lb) (36 to 120 ppm) per 1000 gals of feedwater as needed to maintain control or as specified by guidelines recommended by the membrane manufacturer.

DIRECTIONS FOR TREATING METALWORKING FLUIDS CONTAINING WATER PREDATOR 1020 is effective in metalworking fluid concentrates which have been diluted in water at ratios of 1:100 to 1:4. For controlling (or inhibiting) the growth of bacteria, fungi and yeasts that may deteriorate metalworking fluids containing water, add this product to the fluid in the collection tank. Additions should be made with a metering pump.

Initial or Slug Dose: When the system is noticeably fouled, add PREDATOR 1020 at the rate of (32 fluid ounces) (0.25 gal) (2.65 lbs) per 1000 gals of metalworking fluid in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add PREDATOR 1020 at the rate of (12.8 - 25.6 fluid ounces) (0.1 to 0.2 gal) (1.06 to 2.12 lbs) per 1000 gals of

metalworking fluid per day, or as needed to maintain control. Additions of PREDATOR 1020 product can be made continuously or intermittently. Slug the system as required.

DIRECTIONS FOR TREATING BREWERY PASTEURIZER WATER

For controlling (or inhibiting) the growth of bacteria, fungi and yeasts in brewery pasteurizing water systems, add PREDATOR 1020 at a point in the system to insure uniform mixing.

Initial or Slug Dose: When the system is noticeably fouled, add PREDATOR 1020 at the rate of (32 fluid ounces) (0.25 gal) (2.65 lbs) per 1000 gals of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add PREDATOR 1020 at the rate of (12.8 - 25.6 fluid ounces) (0.1 to 0.2 gal) (1.06 to 2.12 lbs) per 1000 gals of water per day, or as needed to maintain control. Additions of PREDATOR 1020 product can be made continuously or intermittently. Slug the system as required. Badly fouled systems must be cleaned before treatment is begun.

DIRECTIONS FOR TREATING ENHANCED OIL RECOVERY SYSTEMS

NOTE: Add PREDATOR 1020 separately to the system. Do not mix it with other additives, so as to avoid decomposition of PREDATOR 1020 due to the high pH of many additive formulations. Addition of PREDATOR 1020 may be made at the free water knockouts, before or after the injection pumps and injection well headers. For controlling slime-forming bacteria, sulfideproducing bacteria, yeasts, and fungi in oil field water, polymer or micellar floods, water-disposal systems, or other oil field water systems, add 1-80 ppm PREDATOR 1020 (13 - 819 fluid ounces) (0.1- 6.4 gallons) of PREDATOR 1020 per 2400 barrels of water depending on the severity of contamination. Additions should be made with a metering pump either continuously or intermittently

CONTINUOUS FEED METHOD

When the system is noticeably fouled, add 10-80 ppm PREDATOR 1020 (102 - 819 fluid ounces) (0.8-6.4 gal.) of PREDATOR 1020 per 2400 barrels of water continuously until the desired degree of control is achieved. Subsequently, treat with (1-15 ppm) PREDATOR 1020 (13 - 154 fluid ounces) (0.1-1.2 gal.) of PREDATOR 1020 per 2400 barrels of water continuously or as needed to maintain control.

INTERMITTENT OR SLUG METHOD

When the system is noticeably fouled or to maintain control of the system, add 10-80 ppm PREDATOR 1020 (102 - 819 fluid ounces) (0.8-6.4 gal.) of PREDATOR 1020 per 2400 barrels of water intermittently for 4-8 hours per day and from 1-4 times per week, or as needed depending on the severity of contamination.

NOTE: For control of bacteria, yeast, and fungi in aqueous solutions of biopolymer used in flooding operations, add 15-80 ppm PREDATOR 1020 (154 - 819 fluid ounces) (1.2-6.4 gal.) of PREDATOR 1020 per 2400 barrels of water. Additions of PREDATOR 1020 should be made with a metering pump immediately after preparation of the aqueous biopolymer solution to reduce loss of viscosity.

DIRECTIONS FOR TREATING AIR-WASHER SYSTEMS

Add (0.0015-0.095 gallons) PREDATOR 1020 / 1000 gal of water in the system, depending on the severity of contamination, to control slime-forming bacteria and fungi in industrial air washing systems,

Intermittent or Slug Method

Initial Dose: When the system is noticeably fouled, add (0.003-0.095 gal) (0.38 - 12.2 fluid ounces) (3.8 - 118.5 ppm) gal PREDATOR 1020 / 1000 gal of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add (0.0015-0.047 gal) (0.19 - 6.1 fluid ounces) (1.9 - 59 ppm) gal PREDATOR 1020 / 1000 gal of water in the system every 2 days, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD

Initial Dose: When the system is noticeably fouled, add (0.003-0.095 gal) (0.38 - 12.2 fluid ounces) (3.8 - 118.5 ppm) gal PREDATOR 1020 / 1000 gal of water in the system

Subsequent Dose: Maintain this level by pumping a continuous feed of (0.0015-0.047 gal) (0.19 - 6.1 fluid ounces) (1.9 - 59 ppm) gal PREDATOR 1020 / 1000 gal of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

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

DIRECTIONS FOR INDUSTRIAL PRESERVATION APPLICATIONS

PREDATOR 1020 may be used to reduce microbiological contamination in raw materials and/or products such as: aqueous paints and coatings, polymers, slurries, adhesives, latex and resin emulsions, sizing, caulk, process water, along with specialty industrial products including: inks, polishes, waxes, detergents, and cleansers

TO REDUCE MICROBIOLOGICAL CONTAMINATION

Add PREDATOR 1020 to the material or product at a concentration of 25 to 2,000 ppm by weight. This concentration is equivalent to (2.8 to 224.0 fluid ounces) PREDATOR 1020 per 1,000 gallons or (21.4 to 1,712.0 milliliters) PREDATOR 1020 per 1,000 liters. The required concentration will depend on the material being treated and the level of contamination present.

DIRECTIONS FOR TREATING PUBLICLY-OWNED TREATMENT WORKS TO CONTROL COLIFORM AND OTHER BACTERIA

Add PREDATOR 1020 at a concentration of 1.0 to 10.0 ppm by weight of water being treated, depending on the severity and contamination in the system. Addition should be CONTINUOUS and should be made with a metering pump at a point in the system where mixing will be rapid and thorough. Add PREDATOR 1020 to the system in a location where contact time will be 30 minutes or greater before reaching the outfall.

TO USE AS A CO-TREATMENT WITH CHLORINE

Add (0.4 - 1.5 ppm) PREDATOR 1020 by weight of water treated. Chlorination should result in a minimum detectable residual (i.e., greater than zero but less than the NPDES permit level) Addition should be CONTINUOUS and made at a point just after initial chlorine mixing. Rapid mixing is necessary for maximum effectiveness. PREDATOR 1020 should be added at a location where a contact time of 10 minutes or longer will be provided before reaching the outfall.

DIRECTIONS FOR TREATING OILFIELD AND PETROCHEMICAL SYSTEMS

PREDATOR 1020 may be used either in slug treatment or in continuous application. Dosages may vary from as much as 200 ppm of PREDATOR 1020 in slug application to (10 to 50 ppm) of PREDATOR 1020 in continuous treatment (4 fluid ounces) (1/4 pint) PREDATOR 1020 per 1,000 gallons of water equals approximately 30 ppm.

A typical slug treatment is to add (16 fluid ounces) (1 pint) of PREDATOR 1020 per 1,000 gallons at intervals as needed to prevent growth of microbial slime. Badly fouled systems may be slug treated to establish control, followed by continuous treatment to maintain control.

Manufactured for:

A C Aurora Specialtu / Chemistries 1520 Lake Lansing Road Lansing, MI 48912 (800) 344-3699

> EPA Reg. No. 47091-13 EPA Est. No. 47091-MI-1

NET CONTENTS: _____ GALS.(LBS.)