



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

June 20, 2024

Jaqueline Stewart (Sumski)
Agent for Energy Solutions (US) LLC
Energy Solutions (US) LLC
c/o Delta Analytical Corp.
12510 Prosperity Drive, Suite 160
Silver Spring, MD 20904
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Subject: Notification per PRN 98-10 – Add Non-Pesticidal Company Logo
Product Name: TOLCIDE PS20A
EPA Registration Number: 102007-5
Received Date: 05/30/2024
Action Case Number: 00613642

Dear Jaqueline Stewart:

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) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Assurance.

If you have any questions, please contact Terria Northern by email at northern.terria@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to be 'T. Northern', with a stylized, flowing script.

Terria Northern
Registration Risk Manager
RMBII, Team 33
Antimicrobials Division

TOLCIDE® PS20A

[Alternate Brand Names: Plexcide A20; Plexcide T20; Tolcide 4Frac 20A]

NOTIFICATION

102007-5

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:

06/20/2024

INDUSTRIAL ANTIMICROBIAL

ACTIVE INGREDIENT:

Tetrakis(hydroxymethyl) phosphonium sulfate..... 20%

OTHER INGREDIENTS: 80%

TOTAL: 100%

EPA Reg. No. 102007-5

EPA Est.

KEEP OUT OF REACH OF CHILDREN DANGER

[Note to Reviewer: In accordance with 40 CFR 156.68(d), all first aid statements, as prescribed, will appear on the front panel of the product label]

FIRST AID	
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • 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, if possible. • Call a poison control center for further treatment advice.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information call the National Pesticides Information Center at 1-800-858-7378, 7:30 AM to 3:30 PM, Pacific time (PT), Mon. – Fri. During other times, call the poison control center at 1-800-222-1222. Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.	

[See Side Panels for Additional Precautionary Statements]

In case of emergency, call CHEMTREC at 1-800-424-9300

Manufactured for [or by]:



[Note to Reviewer: Other similar company logos may be used]

**ENERGY SOLUTIONS (US) LLC
504 CARNEGIE CENTER
PRINCETON, NJ 08540**

Active ingredient produced in the United Kingdom and/or China

NET CONTENTS: As Marked on Container

[Box and bullet format for FIRST AID section is optional]

[In the text "this product" or alternate brand name may be substituted for Tolcide®PS20A product name]

[[Information in brackets] is optional or instructional; italics in brackets indicate instructions not part of labeling.]

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

DANGER: Corrosive. Causes irreversible eye damage. May be fatal if swallowed. Harmful if inhaled. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid breathing vapor or spray. Wear long-sleeved shirt and pants or coveralls, goggles or face shield and chemical-resistant gloves when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

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

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Not for use in paint.

INDUSTRIAL AND/OR COMMERCIAL RECIRCULATING COOLING WATER SYSTEMS (for control of bacteria, fungi and algae) [Not for use in California]

Note: For cooling water systems of equal to or greater than 4000 gallons, do not apply by open pouring of liquid to cooling water systems; a metering pump delivery system is required for this use and application method.

Initial Slug Dose: Add 200-1312.5 ppm of TOLCIDE® PS20A (40-262.5 ppm THPS) for 2-6 hours based on total water volume. Repeat until control is obtained. Thereafter, add either **Intermittently** 131.25-525 ppm of TOLCIDE® PS20A (26-105 ppm THPS) or **Continuously** 70-245 ppm of TOLCIDE® PS20A (14-49 ppm THPS) per day. Dirty systems must be cleaned prior to treatment.

[or:]

[The following set of directions may be used in lieu of corresponding directions above:]

Note: For cooling water systems of equal to or greater than 4000 gallons, do not apply by open pouring of liquid to cooling water systems; a metering pump delivery system is required for this use and application method.

INDUSTRIAL AND/OR COMMERCIAL RECIRCULATING COOLING WATER SYSTEMS (for control of bacteria, fungi and algae)

Initial Slug Dose: Add 350-1312.5 ppm of TOLCIDE® PS20A (70-262.5 ppm THPS) based on total water volume. Repeat until control is obtained. Thereafter, add either **Intermittently** 131.25-525 ppm of TOLCIDE® PS20A (26-105 ppm THPS) or **Continuously** 70-245 ppm of TOLCIDE® PS20A (14-49 ppm THPS) per day. Dirty systems must be cleaned prior to treatment.

HEAT TRANSFER SYSTEMS (Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers and Retorts, Brewery and Other Pasteurizers, and Warmers)

Add TOLCIDE® PS20A at the same application rates, and in the same manner as described above. It should be added to the system at a point of uniform mixing such as a basin area, sump area, or other reservoir or collecting area from which the treated water will be circulated uniformly throughout the system.

SERVICE WATER AND AUXILIARY SYSTEMS

TOLCIDE® PS20A should be added to service water and auxiliary systems at the same application rates, and in the same manner as described above. It should be added to the system at a point of uniform mixing such as a basin area, sump area, or other reservoir or collecting area from which the treated water will be circulated uniformly throughout the system.

AIR WASHER SYSTEMS (For control of bacteria and fungi) [Not for use in California]

This product may be used only in air washer systems which have mist eliminating components. Pre-clean the system with detergent and allow air washer to run with fan on for two hours. Flush and check nozzles, manually cleaning as necessary. Add 131.25-350 ppm of TOLCIDE® PS20A (26-70 ppm THPS) at a point where uniform mixing and even distribution will occur. Repeat as needed to maintain control.

PAPER AND PAPERBOARD MANUFACTURING (for control of bacteria, fungi and algae)

a) For use as a slimicide in the manufacture of paper and paperboard products and adhesives that do not contact food.

Dosing: Additions should be made at a point in the system where mixing action is good, e.g. raw stock chest beater or mixing unit. Add intermittently or continuously depending on mill conditions.

Intermittent Dosing: Add 122.5-1750 ppm of TOLCIDE® PS20A (24.5-350 ppm THPS) based on total water volume or an equivalent based on dry weight of paper produced.

Continuous Dosing: Add 70-245 ppm of TOLCIDE® PS20A (14-49 ppm THPS) based on total water volume or an equivalent based on dry weight of paper produced.

b) For use as a preservative to retard microbial growth in water-based coatings, starches, pigments and filler slurries. Do not use in paper and paperboard and adhesives that will contact food. [Not for use in California]

The treatment rate necessary to retard spoilage of the additive will vary with the extent of contamination of make-up water and the length of storage.

Dosing: Apply from 875-2500 ppm of TOLCIDE® PS20A (175-500 ppm THPS) to the additive to be preserved based on the total weight of the additive and water.

INDUSTRIAL FRESH WATER SYSTEMS [Not for use in California]

Do not use in freshwater used in the manufacture of paper and paperboard products that may contact food.

TOLCIDE® PS20A is effective in controlling algae in holding ponds and in controlling bacteria and fungi in holding and processing tanks of industrial fresh water systems supplying water to pulp and paper mills, textile mills, and other manufacturing plants. In pulp and paper mills, treatment of the fresh water with TOLCIDE® PS20A can make an important contribution to slime control. The use of TOLCIDE® PS20A as described will reduce the development of slime in fresh water pipes and other equipment, and on the pulp and paper mill machine parts contacted by fresh water.

For the control of algae in industrial fresh water systems, TOLCIDE® PS20A should be added to provide a concentration of 5-50 ppm of product (1-10 ppm of THPS). Treatment should be based on the amount of water entering a pond or reservoir or leaving the pond or reservoir and entering the immediate processing operations. While treatment can be made continuously, regular slug-dosing treatment will provide adequate control.

INDUSTRIAL WASTEWATER SYSTEMS (Wastewater Systems, Wastewater Sludge and Wastewater Holding Tanks) [Not for use in California]

TOLCIDE® PS20A should be added to a wastewater system or sludge at a convenient point of uniform mixing such as digester.

Slug Dosing: Add 200-1312.5 ppm of TOLCIDE® PS20A (40-262.5 ppm THPS) per 1,000 gallons of wastewater or sludge.

Continuous Dosing: Add 5-100 ppm of TOLCIDE® PS20A (1-20 ppm THPS) per 1,000 gallons of wastewater or sludge.

MACROFOULING CONTROL [Not for use in California]

TOLCIDE® PS20A should be added continuously to maintain a level of 20 ppm active ingredient (THPS) in the system for a period of at least 96 hours.

Initial Dose: When macrofouling is present in the system, apply 100 ppm of TOLCIDE® PS20A (20 ppm THPS) based on total water volume. Continue to add TOLCIDE® PS20A as needed to maintain the 20 ppm active ingredient (THPS) level for a period of at least 96 hours.

FIRE PROTECTION SYSTEMS

TOLCIDE® PS20A is effective at controlling microbial growth in waters and on pipe surfaces in fire protection systems. Such microbial growth when combined with other forms of corrosion can lead to accelerated corrosion rates and pitting corrosion, commonly referred to as microbiologically influenced corrosion. TOLCIDE® PS20A also helps to remove free oxygen from the water, thus eliminating an important nutrient for bacteria and an important reactant in many corrosion reactions.

TOLCIDE® PS20A should be added to a fire protection system using a chemical metering pump capable of variable pump rates. The TOLCIDE® PS20A should be injected at a point, such as a riser, manifold or makeup feed water line, where uniform mixing and distribution will occur. Add 375-1500 ppm TOLCIDE® PS20A (75-300 ppm THPS) depending on severity of microbial contamination in the system. Repeat as needed.

SOLUTIONS / EMULSIONS

Not for use in manufacture of paper and paperboard products and adhesives that may come in contact with food.

For the preservation of solutions, emulsions, adhesives and other aqueous liquid products, the addition of 0.0875%-0.875% of TOLCIDE® PS20A (0.0175%-0.175% THPS) is effective. Add at a point in the processing system where there will be sufficient time and agitation for good mixing and dispersion. The exact amount of TOLCIDE® PS20A to be added for the preservation of given formulations will depend on the components as well as local storage time and requirements.

[In the text "this product" or alternate brand name may be substituted for Tocide®PS20A product name]

[[Information in brackets] is optional or instructional; italics in brackets indicate instructions not part of labeling.]

OIL FIELD AND PETROCHEMICAL OPERATIONS

TOLCIDE® PS20A is effective in controlling sulfate reducing bacteria, general aerobic bacteria, including microorganisms that contribute to biofilm formation in oil field recovery, processing and distribution applications and supporting systems; such as injection water, water holding tanks, disposal well water, recirculating water handling systems, and pipelines. TOLCIDE® PS20A has been shown to dissolve iron sulfide and sequester iron when used under these conditions, leading to improved filter life and well injectivity, and reduction of hydrocarbon sheen. TOLCIDE® PS20A is also effective for use in controlling microbial growth in fluids used for drilling and stimulation of oil wells.

Water Floods [Not for use in California]

TOLCIDE® PS20A should be added to a water flood system at a point where uniform mixing will occur.

Initial Treatment: For a noticeably fouled system, add 350-1312.5 ppm TOLCIDE® PS20A (70-262.5 ppm THPS). When added to a flowing system, slug dose for 2-6 hours based on flow rates. Repeat as necessary until control is achieved.

Subsequent Treatment: Once control has been achieved, add 25-367.5 ppm TOLCIDE® PS20A (5-73.5 ppm THPS) weekly or as needed to maintain control. When added to a flowing system, slug dose for 2-6 hours based on flow rates.

Continuous Treatment: TOLCIDE® PS20A can be dosed continuously at a level of 25-250 ppm (5-50 ppm THPS).

[or:]

[The following set of directions may be used in lieu of corresponding directions above:]

Water Floods

TOLCIDE® PS20A should be added to a water flood system at a point where uniform mixing will occur.

Initial Treatment: For a noticeably fouled system, add 350-1312.5 ppm TOLCIDE® PS20A (70-262.5 ppm THPS). When added to a flowing system, slug dose for 2-6 hours based on flow rates. Repeat as necessary until control is achieved.

Subsequent Treatment: Once control has been achieved, add 52.5-367.5 ppm TOLCIDE® PS20A (10.5-73.5 ppm THPS) weekly or as needed to maintain control. When added to a flowing system, slug dose for 2-6 hours based on flow rates.

Continuous Treatment: TOLCIDE® PS20A can be dosed continuously at a level of 52.5-250 ppm (10.5-50 ppm THPS).

Hydraulic Fracturing [Not for use in California]

TOLCIDE® PS20A should be added to the frac water storage tanks or directly into the well head injection pipeline as the water is being pumped down-hole. Add 250-1312.5 ppm of TOLCIDE® PS20A (50-262.5 ppm THPS), depending on the degree of bacterial fouling in the source water.

Oil and Gas Production and Transmission Pipelines and Systems

TOLCIDE® PS20A should be added at a point in the pipeline where uniform mixing will occur. The application should be conducted to ensure maximum distribution of TOLCIDE® PS20A through the entire internal surface of the pipeline by adding an amount of biocide which eventually comes out the other end of the pipeline. Criteria for success of the treatment will be reduction in bacterial count and/or corrosion rates.

Slug Dosing: Follow instructions for water flood treatment.

Continuous Dosing: TOLCIDE® PS20A can be dosed continuously at a level of 52.5-376 ppm (10.5-75 ppm THPS).

Drilling Muds, Packer Fluids, Completion and Workover Fluids

TOLCIDE® PS20A should be added to these fluids at a point where uniform mixing will occur. Add 122.5-5250 ppm of TOLCIDE® PS20A (24.5-1050 ppm THPS) to a freshly prepared fluid depending on severity of contamination.

Gas Storage Well and Systems [Not for use in California]

Individual injection wells should be treated with TOLCIDE® PS20A at the same application rates, and in the same manner as described under Water Floods. Injections should be repeated as needed to maintain control.

Individual drips should be treated with a sufficient quantity of TOLCIDE® PS20A to produce a concentration of 125-500 ppm TOLCIDE® PS20A (25-100 ppm THPS) when diluted by the water present in the drip. Injections should be repeated as needed to maintain control.

Well Remediation Operations [Not for use in California]

Individual production or injection wells may be bullheaded with TOLCIDE® PS20A to control bacteria and simultaneously dissolve iron sulfide deposits. The TOLCIDE® PS20A will be pumped into the well as a solution in water containing from 50% to 100% TOLCIDE® PS20A (10%-20% THPS). The well is shut-in for a period of time (at least 6 hours) then put back into operation.

Hydrotesting

Water used to hydrotest pipelines or vessels should contain 250-2500 ppm TOLCIDE® PS20A (50-500 ppm THPS), depending on water quality and length of time the equipment will remain idle.

Pipeline Pigging and Scraping Operation

Add TOLCIDE® PS20A to a slug of water immediately following the scraper (ideally this water volume can be kept to a minimum and contained between the scraper and a trailing pig). Sufficient TOLCIDE® PS20A should be added to produce a concentration of 0.025% to 0.25% (50-500 ppm THPS) in the water at the discharge point or pig trap, depending on the length of the pipeline and the severity of the biofouling.

[In the text "this product" or alternate brand name may be substituted for Tolcide®PS20A product name]

[[Information in brackets] is optional or instructional; italics in brackets indicate instructions not part of labeling.]

*[Reader's Note: EPA allows for pesticide labels to have container handling and disposal instructions for multiple container types in which that product can be sold. If multiple **container handling and disposal statements** are used on the marketplace label, there is no need to repeat **storage** and **pesticide disposal** statements for each.]*

STORAGE AND DISPOSAL

[For rigid non refillable containers 5 gallons or less:]

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

STORAGE: Store this product in a cool, dry area away from direct sunlight and heat to avoid deterioration. In case of a spill, flood the area with large quantities of water.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING AND DISPOSAL: Nonrefillable container. **[5 gallons [gal] or less]**. Do not reuse or refill this container. Offer for recycling or reconditioning if appropriate. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

[For rigid nonrefillable containers greater than 5 gallons:]

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

STORAGE: Store this product in a cool, dry area away from direct sunlight and heat to avoid deterioration. In case of a spill, flood the area with large quantities of water.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING AND DISPOSAL: Nonrefillable container. **[greater than 5 gallons [gal]]**. Do not reuse or refill this container. Offer for recycling or reconditioning if appropriate. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

[For refillable containers:]

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

STORAGE: Store this product in a cool, dry area away from direct sunlight and heat to avoid deterioration. In case of a spill, flood the area with large quantities of water.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING AND DISPOSAL: Refillable container. Refill this container with THPS only. Do not reuse this container for any other purpose. Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. Pressure rinse the container for final disposal as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

[In the text "this product" or alternate brand name may be substituted for Tolcide®PS20A product name]

[[Information in brackets] is optional or instructional; italics in brackets indicate instructions not part of labeling.]

[For Bulk Shipment Transport Vehicles: Note: In accordance with 40CFR 156 (e) bulk shipment transport vehicles are exempt from the requirements for container handling and disposal, therefore, only pesticide storage and disposal is required on bulk transport vehicle labeling]

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

STORAGE: Store this product in a cool, dry area away from direct sunlight and heat to avoid deterioration. In case of a spill, flood the area with large quantities of water.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

[All products must bear a batch code. This is a lot number or other code used by the registrant or producer to identify the batch of the pesticide product distributed and sold. Location may be on the container or the label.]

Note: To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. To the extent consistent with applicable law, buyer assumes all risk of use and/or handling of this material, when such use and/or handling is contrary to label directions.

[TOLCIDE® is a registered trademark held by Energy Solutions (US) LLC]