



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

June 13, 2023

Olivia Watson, Regulatory Specialist  
Thor GmbH  
c/o Thor Specialties, Inc.  
50 Waterview Drive  
Shelton, CT 06484

Subject: Label Amendment – clarification of concentrate language; separation of household consumer directions for use from the industrial and institutional directions for use language  
Product Name: Acticide L 10  
EPA Registration Number: 67071-89  
Received Date: 4/10/2023  
Action Case Number: 00446958

Dear Olivia Watson:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. Pursuant to 40 CFR 156.10(a)(6) you must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. See FIFRA section 2(p)(2). If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process, FIFRA section 12(a)(1)(B). Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Assurance.

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact me via email at [garvie.heather@epa.gov](mailto:garvie.heather@epa.gov) .

Sincerely,

A handwritten signature in cursive script that reads "Heather A. Garvie".

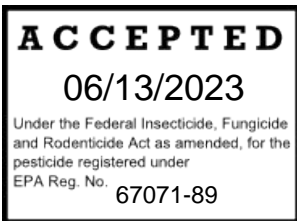
Heather A. Garvie  
Senior Regulatory Advisor  
Regulatory Management Branch 2  
Antimicrobials Division  
Office of Pesticide Programs

Enclosure

{All text in brackets [xxx] is optional and may or may not be intended on a final label.}  
{All text in braces {xxx} is administrative and will not appear on a final label.}

Label # 089-00 V004 – 12-JUN-2023

# ACTICIDE® L 10



### ENVIRONMENTAL HAZARDS

This pesticide 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. Do not contaminate water by cleaning of equipment or disposal of waste.

### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal  
PESTICIDE STORAGE: Keep away from heat.

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 DISPOSAL: Non-refillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: [For containers < 5 gallons in size] – 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. [For containers > 5 gallons in size] - 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

GENERAL: CONSULT FEDERAL, STATE OR LOCAL DISPOSAL AUTHORITIES FOR APPROVED ALTERNATIVE PROCEDURES.

CONDITIONS OF SALE AND WARRANTY: Thor GmbH warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. THOR GMBH MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE. Handling, storage and use of the product by Buyer or User are beyond the control of Thor GmbH and Seller. Risks such as ineffectiveness or other unintended consequences resulting from, but not limited to, failure to follow label directions will be assumed by the Buyer or User. IN NO CASE WILL THOR GMBH OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.

ACTIVE INGREDIENTS:  
2-Bromo-2-nitropropane-1,3-diol ..... 10.0%  
OTHER INGREDIENTS: ..... 90.0%  
TOTAL: ..... 100.0%

## KEEP OUT OF REACH OF CHILDREN DANGER - PELIGRO

See Side panel for additional precautionary statements

FIRST AID
<p><b>If in Eyes:</b> &gt;Hold eye open and rinse slowly and gently with water for 15-20 minutes. &gt;Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. &gt;Call a poison control center or doctor for treatment advice.</p>
<p><b>If on Skin Or Clothing</b> &gt;Take off contaminated clothing &gt;Rinse skin immediately with plenty of water for 15-20 minutes. &gt;Call a poison control center or doctor for treatment advice.</p>
<p><b>If Swallowed:</b> &gt; Call a poison control center or doctor Immediately for treatment advice &gt;Have person sip a glass of water if able to swallow &gt;Do not induce vomiting unless told to do so by the poison control center or doctor. &gt;Do not give anything by mouth to an unconscious person</p>
<p><b>If Inhaled:</b> &gt; Move person to fresh air. &gt;If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to- mouth, if possible &gt;Call a poison control center or doctor for further treatment advice</p>
<p><b>Note to physician:</b> Probable mucosal damage may contraindicate the use of gastric lavage. Treat according to symptoms (decontamination, vital function). No specific known antidote</p>
<p><b>Have the product container or label with you when calling a poison control center or doctor, or when going for treatment</b></p>
<p><b>HOT LINE NUMBER:</b> In case of emergency, for additional information call toll free <b>1-800-424-9300</b>. Have the product container or label with you when calling a poison control center or doctor, or going for treatment</p>
<p><b>For Transportation / Spill Emergency:</b> <b>Call Chemtrec at 1-800-424-9300</b></p>

### Precautionary Statements: Hazards to Humans and Domestic Animals

#### DANGER

**CORROSIVE.** Causes irreversible eye damage and skin irritation. Harmful if swallowed, absorbed through skin, or inhaled. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Do not get in eyes, on skin, or on clothing. Avoid breathing spray mist. Wear protective eyewear (goggles, face shield, or safety glasses). Wear coveralls worn over long-sleeved shirt and long pants, socks, chemical-resistant footwear, and chemical resistant gloves (such as Natural Rubber, Section Category A). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

#### USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing immediately if product gets inside. Then wash thoroughly and put on clean clothing. Users should remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### PHYSICAL AND CHEMICAL HAZARDS

Avoid contact with metal equipment. Reacts with oxidizing agents

#### DIRECTIONS FOR USE

**It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.  
Do not apply this product in a way that will contact workers or other persons.**

Industrial microbiocide to control the growth of slime-forming, spoilage, odor-causing and corrosion inducing bacterial and algae in industrial applications. READ AND FOLLOW THE DIRECTIONS FOR USE ON THE ACCOMPANYING INFORMATION SHEET.

**EPA Reg. No. 67071-89**      **EPA Est. No. 67071-DEU-001**  
Manufactured By/For: Thor GmbH  
D-67346 Speyer, Germany  
U.S. Office: Thor Specialties, Inc.  
50 Waterview Drive; Shelton, CT 06484 USA  
Tel. (203) 516-6980

**[OR]**      **EPA Est. No. 67071-MEX-001**  
*Manufactured By: Thor Quimicos de Mexico S.A., de C.V.  
Km. 182 Autopista Mex-Qro; Pedro Escobedo;  
Queretaro, Mexico.*  
For: Thor GmbH  
U.S. Office:  
Thor Specialties, Inc.  
50 Waterview Drive; Shelton, CT 06484  
Tel. (203) 516-6980

# UN 3265

**CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (2-BROMO-2-NITROPROPANE-1,3-DIOL), 8, PG-III**

Batch:	Mfg Date:	Net Contents (pounds): (gallons):
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# ACTICIDE® L 10

## INFORMATION SHEET



**THIS ACTICIDE® L 10 INFORMATION SHEET MUST ACCOMPANY EACH SHIPMENT OF ACTICIDE® L 10**

### DIRECTIONS FOR USE

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

ACTICIDE® L 10 can be dosed directly either by open pouring or by metered pump. Do not apply by open pouring of liquid to cooling water systems; a metered pump system is required for this use and application method. For in-can product preservation ACTICIDE® L 10 is best added to any liquid phase as late as possible during the manufacturing process and after any heating stage, or when the product is cooled below 40°C. Ensure good mixing and even distribution.

#### **[\*]WATER BASED PRINTING INKS AND FOUNTAIN SOLUTIONS:**

To inhibit the growth of bacteria during the storage and use of water based printing inks, including their use as fountain solutions.

In-can preservation

**1000 – 5000 ppm ACTICIDE® L 10**  
8 to 40 pints / 1000 gallons of product

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During the use of fountain solutions, shock dose ACTICIDE® L 10 depending on the contamination. Apply once weekly in the fount as a normal routine, or more frequently if required.

**500 – 1000 ppm ACTICIDE® L 10**  
4 to 8 pints / 1000 gallons of product

*[\*Not approved for this use in the State of California]*

#### **[\*]METAL WORKING FLUIDS:**

For use in soluble oils, semi-synthetic and synthetic fluids. Add directly to the sump and allow to circulate for about 1 hour before shutdown. Also for use as tank-side additive to diluted fluids.

*[\*Not approved for this use in the State of California]*

*To control microbial growth in diluted fluids:*

**2500 – 10,000 ppm ACTICIDE® L 10**  
2.5 to 10 gallons / 1000 gallons

*For maintenance:*

**1000 – 4000 ppm ACTICIDE® L 10**  
1 to 4 gallons / 1000 gallons

#### **[\*]ADHESIVES:**

Recommended as an in-container preservative for the control of bacteria and fungi in water-soluble and water-dispersed adhesives and mastics including animal glues, vegetable glues, natural rubber latices, polyvinyl acetate, styrene-butadiene and acrylic latices.

*[\*Not approved for this use in the State of California]*

1 to 5 pints / 100 lbs total formulation

#### **[\*]BUILDING MATERIALS:**

Recommended as an in-container preservative for the control of bacteria and fungi in building materials including mastics, caulks, joint cements, spackling, grouting, concrete admixtures

*[\*Not approved for this use in the State of California]*

**0.075 – 0.45%**  
0.75 – 4.5 lbs / 1000 lbs formulation

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### DIRECTIONS FOR USE

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<p><b>[*]ABSORBENT CLAYS:</b>          Impregnate absorbent clays, including fuller's earth, sepiolite and attapulgite, by spraying or pouring ACTICIDE® L 10.  <i>[*Not approved for this use in the State of California]</i></p>	<p><b>250 – 2000 ppm ACTICIDE® L 10</b>          0.25 – 2.0 lbs / 1000 lbs clay</p>
<p><b>[*]PAINTS AND COATINGS:</b>          For in-can preservation of aqueous paints and coatings.  <i>[*Not approved for this use in the State of California]</i></p>	<p><b>1000 – 5000 ppm ACTICIDE® L 10</b>          1.0 – 5.0 lbs / 1000 lbs formulation</p>
<p><b>[*]LATICES, POLYMER EMULSIONS OR SOLUTIONS:</b>          Recommended for the control of bacteria and fungi in the manufacture and storage of synthetic and natural polymer latices including: acrylics, styrene-butadiene, carboxylated styrene-butadiene, ethylene-vinyl acetate and biopolymers intended for industrial use including xanthan gum, gum arabic, guar gum, protein derived polymers, starches and casein derived polymers; photographic emulsions, silicone and other antifoam emulsion systems.  <i>[*Not approved for this use in the State of California]</i></p>	<p><b>1000 – 5000 ppm ACTICIDE® L 10</b>          1.0 – 5.0 lbs / 1000 lbs formulation</p>
<p><b>[*]STARCH, PIGMENT, MINERAL AND EXTENDER SLURRIES:</b>          Recommended for the control of bacteria and fungi in the manufacture and storage of starch, dispersed pigments/colorants, mineral slurries and extender slurries.  <i>[*Not approved for this use in the State of California]</i></p>	<p><b>1000 – 5000 ppm ACTICIDE® L 10</b>          1.0 – 5.0 lbs / 1000 lbs formulation</p>
<p><b>[*]HOUSEHOLD CONSUMER PRODUCTS:</b>          For the control of bacteria and fungi in liquid and semi-solid/solid soaps, liquid and semi-solid/solid cleaners, liquid and semi-solid/solid detergents, liquid and semi-solid/solid laundry products, liquid and semi-solid/solid dishwashing detergents, waxes, polishes, liquid and semi-solid/solid fabric treatment/refreshers products, liquid and semi-solid/solid air fresheners/deodorizers, car care products, and other similar cleaners.          For the control of bacteria and fungi in package utility products such as pre-moistened sponges and mops.  <b>APPLICATIONS IN WIPES</b>          For the control of bacteria and fungi in solutions that are then put into/onto wet wipes for use in residential and household uses cited above. This product is not for use in treating/preserving solutions that will be incorporated in to personal care wipes, baby wipes, or food contact wipes.  <i>[*Not approved for this use in the State of California]</i></p>	<p><b>0.025 – 0.5%</b>          0.25 – 5.0 lbs / 1000 lbs formulation</p>

# ACTICIDE® L 10 INFORMATION SHEET



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OF ACTICIDE® L 10**

## DIRECTIONS FOR USE

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### **[\*]INDUSTRIAL / INSTITUTIONAL / JANITORIAL PRODUCTS:**

For the control of bacteria and fungi in liquid and semi-solid/solid soaps, liquid and semi-solid/solid cleaners, liquid and semi-solid/solid detergents, liquid and semi-solid/solid laundry products, liquid and semi-solid/solid dishwashing detergents, waxes, polishes, liquid and semi-solid/solid fabric treatment/refreshers products, liquid and semi-solid/solid air fresheners/deodorizers, car care products, and other similar cleaners.

**0.025 – 0.5%**

0.25 – 5.0 lbs / 1000 lbs formulation

For the control of bacteria and fungi in package utility products such as pre-moistened sponges and mops.

#### APPLICATIONS IN WIPES

For the control of bacteria and fungi in solutions that are then put into/onto wet wipes for use in industrial and commercial uses cited above. This product is not for use in treating/preserving solutions that will be incorporated in to personal care wipes, baby wipes, or food contact wipes.

*[\*Not approved for this use in the State of California]*

### **[\*]CONCENTRATES FOR USE IN INDUSTRIAL / INSTITUTIONAL / JANITORIAL USE:**

ACTICIDE® L 10 may be added to those products formulated as concentrates which are in turn diluted for use at a level to ensure that the final use-dilution product will contain between 250 and 5000 ppm ACTICIDE® L 10.

*[\*Not approved for this use in the State of California]*

### **[\*]SURFACTANTS AND RAW MATERIALS USED IN CONSUMER, HOUSEHOLD AND INSTITUTIONAL PRODUCTS:**

For preservation of surfactants and raw materials supplied for the manufacture of industrial and consumer products.

**0.10 – 0.50%**

1.0 – 5.0 lbs / 1000 lbs formulation

*[\*Not approved for this use in the State of California]*

### **[\*]WATER BASED AGRICULTURAL PESTICIDE CONCENTRATES:**

For preservation, ACTICIDE® L 10 should be dosed at 840 to 4200 ml / cubic meter or 6.6 to 33.6 pints / 1000 gallons based on the final formulation volume (1000 to 5000 ppm ACTICIDE® L 10).

*[\*Not approved for this use in the State of California]*

# ACTICIDE® L 10

## INFORMATION SHEET



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### DIRECTIONS FOR USE

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#### **[\*]INDUSTRIAL RECIRCULATING WATER COOLING TOWERS AND EVAPORATIVE CONDENSERS:**

ACTICIDE® L 10 may be dosed directly into the sump or basin or may be added by a suitable chemical pump. Where metering pumps are used, these must be set to deliver the required dose within 1 hour. The dosing point should be located close to the outlet from the basin to ensure rapid dispersal around the system.

ACTICIDE® L 10 may be dosed once or twice weekly as a normal routine. Where contamination is heavy, more frequent dosing may be required. In heavily fouled systems, the tower should be drained and cleaned before treating with ACTICIDE® L 10.

Dose levels depend on the condition of the tower, the quality of the raw water input, and the amount of bleed off.

*[\*Not approved for this use in the State of California]*

**250 – 1000 ppm ACTICIDE® L 10**  
2 to 8 pints / 1000 gallons of water

#### **[\*]INDUSTRIAL PROCESS WATER:**

For use in closed circuit machine cooling (injection molding, etc.) and stored (non-potable) water. To reduce the biofouling of pipework, heat exchangers, and condenser tubes and to minimize microbially induced corrosion.

Shock dosing into the sump/tank of the process water system is preferred. In open systems shock dosing should be carried out on a once weekly to once monthly basis depending on the degree of contamination. Closed circuit systems require less frequent dosing.

Initially dose at 4 pints / 1000 gallons (500 ppm ACTICIDE® L 10). When successful, dosing can be lowered to a minimum level equivalent to 100 ppm ACTICIDE® L 10. For intermittent treatment during routine maintenance use ACTICIDE® L 10 at 100 ppm active ingredient and a contact time of at least one hour.

*[\*Not approved for this use in the State of California]*

#### **[\*]PROCESS WASH WATERS:**

Recommended for the control of bacteria and fungi in the storage of process wash waters.

**0.075 – 0.60%**  
0.75 – 6.0 lbs / 1000 lbs wash water

*[\*Not approved for this use in the State of California]*

#### **[\*]AIR WASHER, AIR CONDITIONING AND/OR HUMIDIFYING SYSTEMS / PAINT SPRAY BOOTHS:**

For the control of bacterial growth and reduce buildup of slime deposits. Either shock dose or dose on a regular basis as an intermittent flush treatment during regular maintenance/cleaning.

##### **FREQUENCY AND DOSE:**

Shock dosing should be carried out into the water sump on a routine basis once per week to once per month. Heavily fouled systems may require twice weekly treatment.

Initial dose: add 3.8 pints per 1000 gallons of water in system. Subsequent dosing can be reduced by half.

Intermittent treatment: during routine maintenance/cleaning ACTICIDE® L 10 should be used at a level up to 7.6 pints per 1000 gallons of water in system.

*[\*Not approved for this use in the State of California]*

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#### **[\*]PAPER MILL PROCESS WATER:**

Apply at a convenient point early in the process system (machine chest, constant head box or backwater loop system).

##### **FREQUENCY AND DOSE:**

Shock dose once to three times daily at 10 to 250 ppm ACTICIDE® L 10 in the process water depending on the complexity of the system, quality of raw paper and type and degree of contamination. This equates to 100 to 2500 ml (0.2 to 5 pints) per ton of finished paper or paperboard.

*[\*Not approved for this use in the State of California]*

#### **[\*]PAPER MILLS - BULK PULP:**

Add ACTICIDE® L 10 directly into the hydropulper, machine chest or stock chest.

##### **FREQUENCY AND DOSE:**

Apply ACTICIDE® L 10 once weekly to once daily at 500 to 2000 ppm (500 to 2000 ml per ton of stock or 4 to 16 pints per 1000 gallons) depending on the type and degree of contamination.

*[\*Not approved for this use in the State of California]*

#### **[\*]SLIME CONTROL**

Shock Dosing: 210 to 780 grams (7 1/2 - 27 oz) of ACTICIDE® L 10 for each ton of paper produced per day should be added as a single daily shock dose; the actual quantity used depends on the severity of the slime problem. This addition may be made to any part of the stock preparation or backwater system.

Continuous addition: ACTICIDE® L 10 should be added continuously for either the single period of 8 hours during every 24 hours or for two separate periods of 4 hours during every 24 hours. ACTICIDE® L 10 should be metered at the rate of 585 - 690 grams (21 - 24.9 oz) for each ton of paper produced during the dosing period. This addition should be made to the recirculated backwater.

*[\*Not approved for this use in the State of California]*

#### **[\*]OIL AND GAS FIELD FRACTURING WATER AND FLUIDS:**

For the reduction of bacterial contamination of fracturing gels and fluids utilized in the oil and gas fields. ACTICIDE® L 10 may be added to the fracturing water storage tank, during the mixing of fracturing fluids, or to the well head immediately before the injection of fracturing fluids.

##### **FREQUENCY AND DOSE:**

ACTICIDE® L 10 should be added to the fracturing water storage tank as a slug dose once to twice per week, and should be used for each individual fracturing operation. Recommended use: 90 - 2000 ppm ACTICIDE® L 10.

*[\*Not approved for this use in the State of California]*

#### **[\*]OIL RECOVERY SYSTEMS**

Drilling fluids, packer fluids, completion fluids (polysaccharide fluid loss control agents and thickeners including starch, guar, and xanthan gum): add 0.15% to 0.45% based on the fluid weight or 4.5% - 13.5% based on the dry polysaccharide weight.

Subsurface injection waters including polymer and micellar/polymer waterfloods (thickeners including xanthan gum and polyacrylamides): add 0.045% to 0.45% based on solution weight.

*[\*Not approved for this use in the State of California]*



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#### **[\*]OIL FIELD WATERFLOODING WATER AND FLUIDS:**

For the control of bacterial contaminants of injection water and fluids used in waterflood and enhanced oil recovery. Add ACTICIDE® L 10 to any base fluid or inject directly into the well head.

##### **FREQUENCY AND DOSE:**

ACTICIDE® L 10 should be added as a slug dose once to twice per week, and should be used for each individual fracturing operation. Recommended use: 90 - 2000 ppm ACTICIDE® L 10.

*[\*Not approved for this use in the State of California]*

#### **[\*]OIL AND GAS FIELD PROCESS WATER AND FLUIDS:**

For the reduction of bacterial contamination of formation water produced by wells in the oil and gas fields. ACTICIDE® L 10 should be injected in a single dose at any convenient point of the water-containing oil or gas stream, water-oil or water-gas separation, and produced water treatment.

##### **FREQUENCY AND DOSE:**

ACTICIDE® L 10 should be added as a slug dose once to twice per week, and should be used for each individual fracturing operation. Recommended use: 670 - 2000 ppm ACTICIDE® L 10.

*[\*Not approved for this use in the State of California]*

#### **[\*]OIL AND GAS FLUIDS:**

This product may be used in terrestrial and off-shore drilling muds and packer fluids. Use for the in-can preservation of a wide range of gels and fluids including fracturing, enhanced oil recovery, injection, well squeeze, drilling, workover and completion fluids.

##### **FREQUENCY AND DOSE:**

Add ACTICIDE® L 10 at 4 - 9 pints / 1000 gallons, or 0.18 - 0.36 pint / barrel, which is equivalent to 500 -1000 ppm ACTICIDE® L 10.

For well squeeze fluids add ACTICIDE® L 10 at 2 - 16 pints / 1000 gallons (250 - 2000 ppm ACTICIDE® L 10).

*[\*Not approved for this use in the State of California]*

#### **[\*]OIL AND GAS PIPELINE AND TANK MAINTENANCE:**

For use in water bottoms in crude and refined hydrocarbon storage tanks, piping and transportation systems. Inject ACTICIDE® L 10 directly into the water bottom or pipeline, or add to the hydrocarbon phase.

##### **FREQUENCY AND DOSE:**

Treat once daily for pipeline maintenance to once every one or two months for both storage and transportation system. Apply ACTICIDE® L 10 at 2 - 16 pints / 1000 gallons of aqueous phase (250 - 2000 ppm ACTICIDE® L 10). Higher levels may be added when dosing the hydrocarbon phase which will result in longer term protection by gradual diffusion into the water. Dose depends on the volume of crude or oil and the expected water fraction.

*[\*Not approved for this use in the State of California]*