

464-327

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

FEB 5 2014

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

Abigail Trueblood  
Product Stewardship Regulatory Manager  
The Dow Chemical Company  
1803 Building  
Midland, MI 48674

Subject: Dowicil 150 Antimicrobial  
EPA Registration Number: 464-327  
Application Date: April 5, 2013

Dear Ms. Trueblood:

The Agency has reviewed your amendment submitted in accordance with continuing registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as amended, and determined the action acceptable.

In summary, the proposed revisions to add gas and oil industrial uses has been reviewed and found to be acceptable. A stamped copy of your accepted label is enclosed. Please submit to this office a finished copy of your revised label.

Should you have any questions about this letter, please contact Tom Luminello at (703) 308-8075.

Sincerely,

A handwritten signature in black ink that reads "Jacqueline Hardy".

Jacqueline Hardy  
Product Manager 34  
Regulatory Management Branch II  
Antimicrobials Division (7510 P)

DOWICIL 150 ANTIMICROBIAL  
Master Label  
Gas and Oil Expansion February 5, 2014

# DOWICIL™ 150 ANTIMICROBIAL

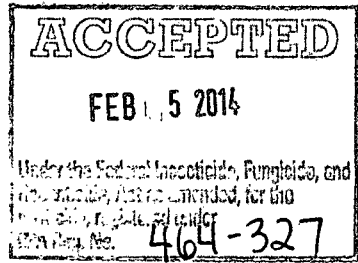
FOR THE CONTROL OF BACTERIA AND FUNGI IN INDUSTRIAL APPLICATIONS

FOR INDUSTRIAL USE ONLY

**Active Ingredient(s):**  
 Cis isomer of 1-(3-chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride..... 96%

**Inert Ingredient(s):** ..... 4%

**Total**                    **100%**



E.P.A. Registration No. 464-327  
E.P.A. Est. XXXX-XX-X

**KEEP OUT OF REACH OF CHILDREN**

## WARNING

FIRST AID	
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes</li> <li>◦ Call a poison control center or doctor for treatment advice</li> </ul>
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice</li> <li>• Have person sip a glass of water if able to swallow</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing</li> <li>◦ Call a poison control center or doctor for treatment advice.</li> </ul>
HOT LINE NUMBER	
<b>IN CASE OF AN EMERGENCY</b> endangering life or property involving this product, call collect 989-636-4400. Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
<b>NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage</b>	

## PRECAUTIONARY STATEMENTS

### Hazards To Humans and Domestic Animals

**WARNING.** May be fatal if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Do not get in eyes, on skin, on clothing. Avoid breathing spray mist. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Handlers must wear: chemical-resistant gloves (such as Nitrile, butyl, Neoprene, and/or Barrier-4-laminate).

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**PHYSICAL or CHEMICAL HAZARDS**

FLAMMABLE- Keep away from heat, sparks and open flame.

**ENVIRONMENTAL HAZARDS**

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

NOTICE: Do not ship with food, feeds drugs or clothing.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in a dry place. Store below 60° C. Keep container tightly closed when not in use.

**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 of the nearest EPA Regional Office for guidance.

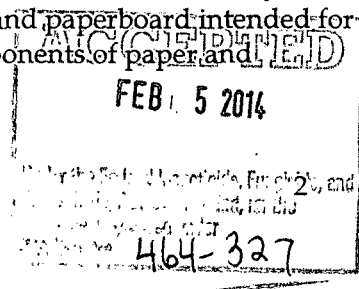
**CONTAINER HANDLING:**

**Nonrefillable container:** Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into mix tank. Triple rinse drum liner and remove liner and dispose of liner in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Then offer drum for recycling if available. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

**DIRECTIONS FOR USE**

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

DOWICIL 150 Antimicrobial when used according to good manufacturing practices, meets the requirements of Food Additive Regulations 21 CFR 175.105 for use as a preservative for adhesives; 21 CFR 177.1680 for preservation of polyurethane resins in contact with dry bulk foods; 21 CFR 176.170 for preservation of components of paper and paperboard intended for use in contact food and 21 CFR 176.180 for preservation of components of paper and paperboard intended for use in contact with dry foods.



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DOWICIL 150 Antimicrobial may be used as a preservative (inert ingredient) in water-based formulations which do not come in contact with food, food crops, feedstuffs, and water supplies and which are not applied to humans or food producing animals in concentrations not to exceed 0.14% by wt of the total formulation.

**DETERGENTS**

To prevent bacterial deterioration during storage and to increase the shelf life of biodegradable surfactants, add 0.03- 0.1% DOWICIL 150 Antimicrobial by wt of the formulation. Add as an aqueous solution.

**FLOOR WAX EMULSIONS AND FLOOR POLISHES**

To preserve water-based waxes and polishes during storage, add 0.05-0.15% DOWICIL 150 Antimicrobial by wt of the formulation. Add as an aqueous solution.

**ADHESIVES**

To prevent pH drop, odor, gas formation, change in viscosity, and the loss of adhesives strength during manufacture, storage, and service add 0.05-0.5% DOWICIL 150 Antimicrobial by wt of the formulation. Add as a concentrated aqueous solution.

For use in the following types of adhesives:

**Starch Based** (corn, tapioca, sago, potato, etc)

Add 0.1%-0.2% DOWICIL 150 by wt as a concentrated aqueous solution.

**Protein-Derived** (animal glues such as hide, bone, fish, blood and gelatin) Add 0.1-0.5% DOWICIL 150 by wt as a concentrated aqueous solution.

**Natural Gums** (Arabic, guar and tragacanth)

Add 0.05-0.2% DOWICIL 150 by wt as a concentrated aqueous solution. Highly concentrated gums do not readily support bacterial or fungi growth; consequently, higher concentrations of DOWICIL 150 are required in the less concentrated gum solutions.

**Natural Rubber Latex**

Add 0.05-0.15% DOWICIL 150 by wt as a concentrated aqueous solution.

**Polyvinyl Acetate Emulsions**

Add 0.05-0.15% DOWICIL 150 by wt as a concentrated aqueous solution.

**Synthetic Gums** (e.g. METHOCEL<sup>SM</sup> methylcellulose gums) and **Other Synthetic-Based Adhesives**

Add 0.05-0.15%† DOWICIL 150 by wt as a concentrated aqueous solution.

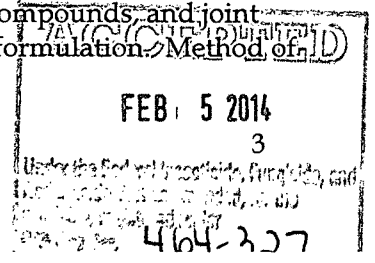
†Synthetic adhesives formulations sometimes incorporate natural substances such as starches or proteinaceous materials. To preserve these formulations, use the level of preservative recommended for the adhesive containing only the natural material.

**LAUNDRY STARCH**

To increase shelf and use life of liquid formulations, add 0.05-0.15% DOWICIL 150 Antimicrobial by wt of the formulation. Add as an aqueous solution.

**CONSTRUCTION MATERIALS**

To increase shelf and use life of caulking, grouting, and spackling compounds and joint cements, add 0.06-0.15% DOWICIL 150 Antimicrobial by wt of the formulation.



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application depends on the type of formulation and may be made dry or as a concentrated aqueous solution.

**NOTE: DOWICIL 150 IS INCOMPATIBLE WITH CASEIN IN BOTH LIQUID AND DRY SYSTEMS AND WITH SOME TYPES OF AMINE-MODIFIED CLAYS.**

**INKS**

To increase the shelf life of fountain pen, fabric, and paper printing inks, add 0.15-0.2% DOWICIL 150 Antimicrobial by wt of the ink. Add as an aqueous solution.

**LATEX EMULSIONS**

To prevent bacterial deterioration during manufacture, transit, and storage of raw emulsions, add 0.05-0.15% DOWICIL 150 Antimicrobial by wt of the emulsion. Add as an aqueous solution.

**METALWORKING FLUIDS**

To control bacterial contamination that produces odors, rancidity, acidity and destruction of soluble cutting oils, add 0.1-0.2% DOWICIL 150 Antimicrobial by wt of the formulation. Add to the water phase of the cutting fluid during formation.

**PAINT**

To preserve cellulose-thickened latex paints in the can, add 0.05-0.2% DOWICIL 150 Antimicrobial by wt of the formulation. Add dry or as an aqueous solution during any phase of the formulating process in the aqueous-phase raw materials. DOWICIL 150 has no effect on the viscosity, stability, and other physical properties of the paint formulation or on the colorfastness of the paint films.

**PULP AND PAPER**

To protect coatings, finishes, and printing colors based on starch and latex (natural and synthetic) from bacterial and fungal attack, add 0.1-0.2% DOWICIL 150 Antimicrobial by wt of the formulation. Add as an aqueous solution. These concentrations will protect against bacterial and fungal growth for 3-6 days. Longer periods of preservation require higher concentrations.

**TEXTILES**

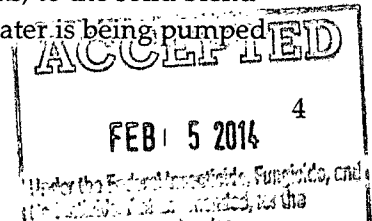
To prevent spoilage of spinning emulsions for rayon and finishing solutions, and to prevent viscosity and pH changes in printing pastes caused by bacteria and fungi, add 0.1-0.2% DOWICIL 150 Antimicrobial by wt of the formulation. Add as an aqueous solution.

**OIL AND GAS PRODUCTION**

**(For Use with Closed Delivery System Only)**

**Water Floods:** DOWICIL 150 Antimicrobial must be added to a water flood system at a point of uniform mixing. Add 0.0017 – 0.0333% (17 to 333 ppm) DOWICIL 150 Antimicrobial to the system weekly, or as need to maintain control.

**Fracturing Fluids:** DOWICIL 150 Antimicrobial reduces bacterial contamination and degradation of fracturing fluids and gels used in oil and gas well stimulations. Add DOWICIL 150 Antimicrobial to the fracturing water storage tanks, to the solid blend system, or directly into the well head injection pipeline as the water is being pumped down-hole.



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Dose Range: DOWICIL 150 Antimicrobial must be added at a rate of 0.0017 – 0.0333% (17 to 333 ppm), depending on the degree of bacterial fouling in the source water.

**Drilling, Completion, and Workover Fluids:** DOWICIL 150 Antimicrobial must be added to a drilling fluid system at a point of uniform mixing, such as the circulating mud tank.

**Initial Treatment:** Add 0.0017 – 0.0333% (17 to 333 ppm) DOWICIL 150 Antimicrobial to a freshly prepared fluid, depending on the severity of contamination.

**Maintenance Dosage:** Maintain a concentration of 0.0017 – 0.0333% (17 to 333 ppm) DOWICIL 150 Antimicrobial as needed, depending on the severity of contamination.

**Packer Fluids:** DOWICIL 150 Antimicrobial must be added to a packer fluid at a point of uniform mixing, such as a circulating holding tank. Add 0.0017 – 0.0333% (17 to 333 ppm) DOWICIL 150 Antimicrobial to freshly prepared fluid, depending on the severity of contamination. Seal the treated packer fluid in the wall between the casing and production tube.

**Injection Fluids:** For the control of contamination and corrosion from bacterial sources in fluids/waste fluids that are disposed of through injection into an approved well following approved guidelines, add DOWICIL 150 Antimicrobial as a dry product or pre-dissolved in each volume of fluid prior to injection.

**Frequency and Dose:** DOWICIL 150 Antimicrobial must be added at a rate of 0.0017 – 0.0333% (17 to 333 ppm) based in the water percent of the injection fluid.

**Well Squeeze Fluids:** For the effective control of aerobic and anaerobic bacteria in squeeze fluids and downhole well bore areas, add DOWICIL 150 Antimicrobial during pre-mixing of the well squeeze fluid or (in the case of direct mix injection systems) an aqueous solution may be added by direct injection at the well head during the well squeeze procedure.

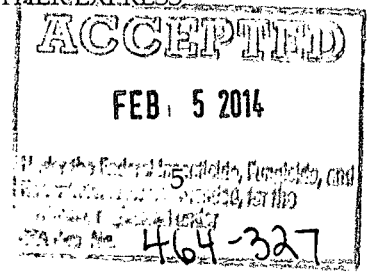
**Frequency and Dose:** DOWICIL 150 Antimicrobial must be used for each well squeeze operation to ensure best results. Add DOWICIL 150 Antimicrobial at a concentration of 0.0017 – 0.0333% (17 to 333 ppm), depending on the quality of the makeup water.

**Produced Water:** To inhibit the growth of slime-forming or corrosion-inducing sulfate-reducing bacteria in formation water produced by wells, together with oil or gas, DOWICIL 150 Antimicrobial may be used as the solid or pre-dissolved in a quantity of water, then injected into the water containing oil or gas stream at any convenient point. It should be injected as slug doses, not as a continuous feed.

**Frequency and Dose:** Depending on severity and rapidity of contamination, DOWICIL 150 Antimicrobial should be slug-dosed from once a week to once a month at 0.0017 – 0.0333% (17 to 333 ppm).

**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.

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When product produced for Dow: Produced For  
Dow Diamond  
**THE DOW CHEMICAL COMPANY**  
Midland, Michigan 48674  
(989) 636-4400

<sup>TM</sup>Trademark of THE DOW CHEMICAL COMPANY ("Dow") or an affiliated company of  
Dow

