



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
 AND POLLUTION PREVENTION

Ms. Abigail Trueblood
 The Dow Chemical Company
 1500 E. Lake Cook Road
 Buffalo Grove, IL 60089

Subject: AMICAL™ Flowable Antimicrobial Agent
 EPA Registration No.: 464-673
 Application Date: 01/05/2011
 Receipt Date: 01/07/2011

Dear Ms. Abigail Trueblood:

The following amendment submitted in connection with registration under FIFRA, as amended, is acceptable with conditions.

Proposed Amendment

- Clarification of language for end use in Pigment Dispersions, Inks, Emulsions, and Slurries
- Removal of high pressure treatment from end use in Wood Preservation

Conditions

Revise the label as follows:

- 1) Revise the spelling of "sloking tobacco" in the Precautionary Statements to "smoking tobacco."
- 2) As per Mandatory Labeling, PR Notice 2000-5, revise the following:
 - a. Revise the first sentence in the Use in Caulks and Adhesives section to read: "Use AMICAL Flowable Antimicrobial Agent in adhesives and binders, ...".
 - b. Revise the 3rd sentence in the Use in Wood Preservation section to read: "Concentrations of 0.3 – 0.8% (w/w active ingredient) give best results."
 - c. Revise the last sentence in the Use in Wood Preservation section to read: "Do not use where there will be direct contact with plants."
 - d. Revise the 2nd sentence of the Use in Leather Tanning section to read: "..., for goat and small skins, calculate levels on the dry basis of the skin weight, assuming..."

- e. Delete “recommendations” in the 3rd and 4th sentences of the Use in Leather Tanning section and state “directions.”
- f. Delete “should” in the 2nd to last sentence of the Use in Leather Tanning section and state “must.”
- g. Revise the 2nd sentence for the Intermittent or Slug Method – Initial Dose and the Continuous Feed Method – Initial Dose in the Use in Paper Production to read: “Add directly to the additive system at the rate 0.0096 to 7.97 lb (0.48 to 400 ppm) per 1000 gallons.”
- h. Delete the term “should” and state “must in the 3rd and 4th sentences under Mold Inhibition in Paper and Paperboard.
- i. Revise the first sentence of the Preservation in Paper Plant Storage section to read: “Add this product directly to the material...”
- j. Revise the 3rd to last sentence in Preservation in Paper Plant Storage section to read: “The usual additions are 0.2 ppm active for...”
- k. Delete the term “recommendations” in the last sentence of the Preservation in Paper Plant Storage section and state “directions.”

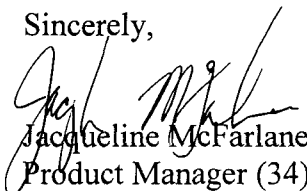
General Comments

A stamped label with conditions is enclosed for your records. Submit three (3) copies of your final printed label before distributing or selling the product bearing the revised labeling.

Should you have any questions or comments concerning this letter, you may contact me by telephone at (703) 308-6416 or by e-mail at campbell-mcfarlane.jacqueline@epa.gov or Jaclyn Carl by telephone at (703) 347-0213 or by e-mail at carl.jaclyn@epa.gov.

When submitting information or data in response to this letter, a copy of this letter should accompany the submission to facilitate processing.

Sincerely,



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

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AMICAL Flowable Antimicrobial Agent
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AMICAL™ Flowable Antimicrobial Agent

Active Ingredient(s): Diiodomethyl p-tolyl sulfone 40.0% (w/w)
Inert Ingredients 60.0% (w/w)
Total 100%
1 gallon provides 4.4 lb active ingredient)

E.P.A. Registration No. 464-673
E.P.A. Est. XXXX-XX-X

ACCEPTED
with COMMENTS
EPA Letter Dated:

MAY - 9 2011

Under the Federal Insecticide,
Fungicide, and Rodenticide Act, as
amended, for the pesticide
registered under EPA Reg. No.

464-673

KEEP OUT OF REACH OF CHILDREN

DANGER

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none"> • Hold eyes 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 eyes. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> • 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 by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN :	<ul style="list-style-type: none"> • 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 INHALED:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance and then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment
HOT LINE NUMBER	
IN CASE OF AN EMERGENCY 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.	
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER. CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE.
HARMFUL IF ABSORBED THROUGH THE SKIN. Do not get in eyes, on skin, or on clothing. Wear goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, smoking tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

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Occupational handlers must wear chemical resistant gloves while handling diiodomethyl p-tolyl sulfone.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic 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 plan authority. For guidance, contact your State Water Board or Regional Office of the EPA.

Antisapstain treated lumber must be stored under cover, indoors, or at least 100 feet from any pond, lake, stream, wetland, or river to prevent possible runoff of the product into the waterway. Treated lumber stored within 100 feet of a pond, lake, stream, or river must be either covered with plastic or surrounded by a berm to prevent surface water runoff into nearby waterway. If a berm or curb is used around the site, it should consist of impermeable materials (clay, asphalt, concrete) and be of sufficient height to prevent runoff during heavy rainfall events.

STORAGE AND DISPOSAL

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

STORAGE

Store in a dry area. Keep container 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 at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

Nonrefillable Container: Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling if available 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.

DIRECTIONS FOR USE

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

USE IN PAINTS

AMICAL Flowable Antimicrobial Agent is an effective mildewcide and algicide for exterior and interior latex paint, solvent-based paints, fire-retardant insulation coating and air duct coatings. Use levels in paints and duct coatings will vary depending upon the formulation and expected severity of field conditions.

For roll coat applications only: AMICAL Flowable Antimicrobial Agent will impart protection when used at levels of 4.0-12.5 lb AMICAL Flowable Antimicrobial Agent per 100 gallons of paint for severe conditions, while 2.5-7.5 lb AMICAL Flowable Antimicrobial Agent per 100 gallons of paint are sufficient for less severe conditions.

For all other paint applications methods, including airless sprayer and brush/roller application: The maximum allowable concentration is 6.25 lb AMICAL Flowable Antimicrobial Agent per 100 gallons of paint.

For mildew control of fire-retardant coating add AMICAL Flowable Antimicrobial Agent at 0.00375% to 0.75% to slurried coating. AMICAL Flowable Antimicrobial Agent can be added at any stage of the manufacturing process, at the point of retail purchase, or by the end user. After addition of AMICAL Flowable Antimicrobial Agent, the formulation must be mixed for maximum dispersion of the AMICAL Flowable Antimicrobial Agent.

For 0.5 oz, 20 oz, 75 oz by weight packages: Add 0.37 fl oz (0.5 oz av.) of AMICAL Flowable Antimicrobial Agent to each gallon of paint or stain. Use paint or stain as directed.

For 2.5 oz av. package: Add contents of package (2.5 oz of AMICAL Flowable Antimicrobial Agent) to 5 gallons of paint or stain. Use paint or stain as directed.

USE IN PIGMENT DISPERSIONS, INKS, EMULSIONS AND SLURRIES

To inhibit the growth of spoilage fungi during the storage and use of water-based suspensions and dispersions and slurries, such as clay, kaolin, calcium carbonate, calcium sulfate, barium sulfate, magnesium sulfate, iron oxide, carbon black, titanium oxide, kieselguhr, starch, organic dyes, and other filler suspensions. AMICAL Flowable Antimicrobial Agent will impart protection when dosed at 0.05-0.375% (w/w). Add AMICAL Flowable Antimicrobial Agent at a point in the production process where sufficient mixing will assure good suspension of the material as other ingredients are added.

USE IN CAULKS AND ADHESIVES

AMICAL Flowable Antimicrobial Agent is ~~recommended~~ for use in adhesives and binders, e.g. joint compounds, tile mastics, wallpaper paste, carpet backing, air filters and foil scrim Kraft laminate; and sealants and caulks where mildew growth on the applied or stored product may be a problem. For control of mildew add 0.025- 0.72% AMICAL Flowable Antimicrobial Agent at a point in the production process where sufficient mixing will assure good suspension of the material as other ingredients are added. AMICAL Flowable Antimicrobial Agent also can be added by the end-user at a point of

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use of the adhesive. Add 0.044-0.176 fl oz (0.06-0.24 oz av.) directly to each gallon of adhesive paste or to each gallon of paste activator.

USE IN WOOD PRESERVATION (For Above Ground Use Only)

Do not apply this product to any structure, or use any wood treated with this product in or above water or within 100 feet of any surface water or wetland area. Wood treated with diiodomethyl p-tolyl sulfone shall not be used in the construction of beehives.

AMICAL Flowable Antimicrobial Agent can be used for control of mildew, sapstain, and wood rotting organisms at wood treatment facilities or incorporated into other registered wood preservatives. For typical end users, such as building lumber, furniture, frames, fences, decking, shingles, and siding, logs and poles, add AMICAL Flowable Antimicrobial Agent to the water based treatment solution with constant agitation for optimum results. Concentrations of 0.3-0.8% (w/w active ingredient) are ~~recommended~~. For dip treatments, submerge for a minimum of one minute. Spray applications should use at least 0.5% (w/w a.i.) concentration AMICAL Flowable Antimicrobial Agent. Spray to run-off if intermittent spraying. AMICAL Flowable Antimicrobial Agent can be used with other wood preservatives such as chromated copper arsenate (CCA), quaternary ammonium compounds, borates, tributyltin compounds, and zinc and copper salts at levels of 25-5000 ppm. In cases where AMICAL Flowable Antimicrobial Agent is incorporated into a formulated wood preservative, follow label directions for the finished product. Do not use treated wood where there is direct contact with food, feed, potable water, livestock or dairy animals or for surfaces likely to have repeated or prolonged skin contact. Uses where there will be direct contact with plants are not ~~recommended~~.

USE IN LEATHER TANNING

For use in leather tanning drum use only.

AMICAL Flowable Antimicrobial Agent is used in protecting chrome or vegetable tanned leather from mold and mildew during in-tannery wet processing and for protecting wet-blue during long storage and long transportation times. For normal protection of chrome-tanned cattle hides (based on white weight of hides) use 0.02-0.03% , for sheep hides (based on drained pickle weight) 0.08-0.11%, and for goat and small skins use levels ~~should~~ be calculated on the dry basis of the skin weight, assuming limed weight to be 20% dry basis and pickled weight to be 33% dry basis. When long hold or export protection is required, use 0.03-0.66% for cattle, 0.11-0.17% for sheep, and on goat and small skins follow ~~recommendations~~ for normal protection. Use level ~~recommendations~~ during retan/ color/fatliquor protection of chrome-tanned hides for all hide types are 0.15-0.45 (% on wet blue weight). In all applications add the dry AMICAL Flowable Antimicrobial Agent through the drum door, preferably by sprinkling across the width of the drum. This ~~should~~ be done just prior to chrome addition, or together with the formate. In the case of retan/color/fatliquor, add AMICAL Flowable Antimicrobial Agent prior to the prime fatliquor feed.

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USE IN TEXTILES AND NON-WOVENS (Non-clothing)

To prevent mildew growth on products such as canvas, carpet-backing, cordage, drapes, filters, and shower curtains. Use only to treat carpet-backing. Not for use in carpet fibers. Use levels depend upon the expected severity of exposure or end-use conditions. In general, 1.25 to 12.5 lb of AMICAL Flowable Antimicrobial Agent per 1000 lb dry fabric (1250-12500 ppm) is needed. AMICAL Flowable Antimicrobial Agent is best added together with the water-repellent emulsion of dry to ensure durability.

USE IN PAPER PRODUCTION

This product aids in the control of objectionable fungi in pulp, paper mills, and the additive system and for the preservation of pulp, pigment slurries, alum, emulsions, adhesives, defoamers, polymers, and paper products. This product is used to inhibit fungal growth which causes discoloration, odor, and degradation in paper and paperboard. This product is not cleared for use in the manufacture of paper and paperboard products that come in contact with food. Additions can be made on a continuous or intermittent basis, depending upon the severity of the contamination. Badly fouled systems must be cleaned before treatment is begun. Apply at a point in the system where the product will be uniformly mixed.

Intermittent or Slug Method- Initial Dose: When the system is noticeably fouled, add this product at the rate of 0.0019 to 1.92 lb per ton of pulp or paper produced. Addition to the additive system ~~should~~ be made directly at the rate of 0.0096 to 7.97 lb (0.48 to 400 ppm) per 1000 gallons. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add this product at the rate of 0.0019 to 0.96 lb per ton of pulp or paper produced. Treat the system as needed to maintain control. Addition of this product to the additive system may be reduced to 0.0096-4.03 lb (0.48 to 200 ppm) per 1000 gallons.

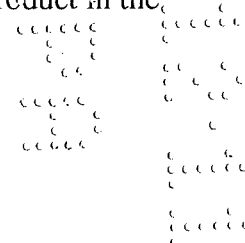
Continuous Feed Method-Initial Dose: When the system is noticeably fouled, add this product at the rate of 0.0019-1.0 lb per ton of pulp of paper produced. Additions of this product to the additive system ~~should~~ be made directly at the rate of 0.0096 to 6.05 lb (0.48 to 300 ppm) per 1000 gallons. Continue until control is achieved.

Subsequent Dose: Maintain by continuous feed of this product at the rate of 0.0019 to 1.0 lb per ton of pulp and paper product.

MOLD INHIBITION IN PAPER AND PAPERBOARD

This product is used to inhibit fungal growth which causes discoloration, odor and degradation in paper and paperboard. This product may be applied to the white water or stock. The final paper ~~should~~ contain 0.54-8.21 lb of AMICAL Flowable Antimicrobial Agent per ton of dry fiber produced. For inhibition of wet lap or sheep pulp this product ~~should~~ be applied to the dewatered pulp surfaces via applicator rolls or shower at 0.048-8.16 lb per ton of dry fiber produced. Application can also be made at the size press or water box. Application is made at the rate of 200 to 20000 ppm of this product in the solution applied to the paper sheet.

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PRESERVATION IN PAPER PLANT STORAGE

This product ~~should~~ be added directly to the material to be preserved prior to manufacturing into the finished product, i.e. pulp, alum, broke, polymers, defoamers, emulsions, adhesives, paper mill coating, pigment, and slurries. The dosage rate will depend upon the material to be preserved and the storage time. The usual additions ~~should~~ be 0.2 ppm active for storage of microbial resistant materials up to 250 ppm active for less resistant materials. Under extreme conditions of spoilage the dosage rate ~~should~~ be increased to 4 to 400 ppm. The above ~~recommendations~~ are based on a maximum storage time of two weeks.

NET WT:

Lot:

Produced For

Dow Diamond TM
THE DOW CHEMICAL COMPANY
Midland, Michigan 48674
989-636-4400

TM Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

