

MAY 25 1995

Mr. Allen F. Bollmeier  
Angus Chemical Co.  
1500 E. Lake Cook Road  
Buffalo Grove, Illinois 60089-6556

Dear Mr. Bollmeier:

Subject: Amical 48  
EPA Reg. No. 48301-19  
Amical Flowable  
EPA Reg. No. 48301-24  
Your Submissions of May 11, 1995

The label amendments submitted on May 11, 1995, in connection with registration under FIFRA sec. 3(c)(7)(A), are acceptable provided that you:

1. Satisfy all outstanding data requirements as identified by Special Review and Reregistration Division prior to reregistration.

2. Make the following label revision:

The signal word "Danger" must appear twice on the label. Once immediately below "Keep Out of Reach of Children" and again in the Precautionary Statements section. The first signal word must be in the appropriate type size as stated in the regulations. The signal word which appears in the Precautionary Statements section may be smaller but should still be large enough to stand out from the other statements.

3. Submit five (5) copies of your final printed labeling before you release the product for shipment.

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If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

Stamped copies of the labels are enclosed for your records.

Sincerely yours,



Connie B. Welch  
Product Manager (21)  
Fungicide-Herbicide Branch  
Registration Division (7505C)

) Enclosures

7505C:C.Grable:cg:5/22/95

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ACCEPTED  
with COMMENTS  
In EPA Letter Dated

MAY 25 1995

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
48301-24

**DRAFT LABEL**

**AMICAL® FLOWABLE**  
Antimicrobial Agent

**Active Ingredient.\***

Diiodomethyl p-tolyl sulfone 40.0(w/w)

Inert Ingredients: 60.0(w/w)

\*( 1 gallon provides 4.4 lb active ingredient)

**KEEP OUT OF REACH OF CHILDREN**

**Precautionary Statements**

**Hazards to Humans and Domestic Animals**

**DANGER**

**CORROSIVE: CAUSES IRREVERSIBLE EYE DAMAGE**

Do not get in eyes or on clothing. May be harmful if absorbed through the skin. Avoid contact with skin. Do not take internally. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Wear goggles, face shield, or safety glasses.

**Statement of Practical Treatment**

**IF IN EYES:** Hold eyes open and flush with a steady gentle stream of water for 15 minutes. Get medical attention.

**IF ON SKIN:** Wash thoroughly with soap and water. Get medical attention.

**IF SWALLOWED:** Drink a large quantity of milk, egg white, or gelatin mixture, or, if these are not available, a large quantity of water. Avoid alcohol.

**Note to Physician:** Probable mucosal damage may preclude the use of gastric lavage.

**Environmental Hazards**

This pesticide is toxic to fish. Do not contaminate water when disposing of equipment washwaters. 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.

**EPA Reg. No. 48301-24**

**EPA Est. No. 37429-GA-2**

ANGUS Chemical Company  
1500 East Lake Cook Road  
Buffalo Grove, IL 60089

*Rec'd 10/1/95*

Storage and Disposal

Storage:

Do not contaminate water, food or feed by storage or disposal. Store in a dry area. Keep container closed when not in use. Protect from freezing.

Pesticide Disposal:

Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

Triple rinse (or equivalent), then 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 And Pigment Dispersions

AMICAL Flowable is an effective mildewcide and algicide for latex paint, solvent-based paints. Use levels are dependent upon paint formulation to be protected and upon the severity of field conditions. AMICAL Flowable can be added at any stage of the manufacturing process, at the point of retail purchase, or by the end user.

For General Use: In paint systems use 4-10 lb Amical Flowable per 100 gallons of paint.

For 0.5oz, 20 oz, 75 oz by weight packages: Add 0.37 fl oz (0.5 oz av.) of AMICAL Flowable 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)to 5 gallons to paint or stain. Use paint or stain as directed.

Use in Pigment Dispersions

To inhibit the growth of spoilage fungi during storage of water-based suspensions and dispersions. AMICAL Flowable will impart protection when dosed at 0.02-0.15 % (w/w). Add AMICAL Flowable 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 is recommended for use in adhesives and binders e.g., joint compounds, tile mastics, wallpaper paste, carpet backing, air filter 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 growth add 0.025-0.72% AMICAL Flowable at a point in the production process where sufficient mixing will assure good suspension of the material as other ingredients are added. AMICAL Flowable also can be added by the end-user at a point of 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)

AMICAL Flowable 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 to the water-based treatment solution with constant agitation for optimum results. Concentrations of 0.3-1.0% (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. Spray to run-off if intermittent spraying. For pressure treatment, retention levels of 0.05-1.0 lb pcf are recommended. Amical Flowable 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 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

AMICAL Flowable 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 0.03-0.06% 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 is 0.15-0.45(% on wet blue weight). In all applications, add the AMICAL Flowable through the drum door. This should be done just prior to chrome addition, or together with the formate. In the case of retan/color/fatliquor, add AMICAL Flowable prior to the prime fatliquor feed.

Use In Textiles And Non-Wovens (Non-Clothing)

To prevent mildew growth on products such as canvas, carpet, cordage, drapes, filters, and shower curtains. Use levels depend upon the expected severity of exposure or end-use conditions. In general 1.25-12.5 lb AMICAL Flowable per 1000 lb of dry fabric (1250-12,500 ppm) is needed. AMICAL Flowable is best added together with the water-repellent emulsion or dye 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 0.0019-1.92 lb per ton of pulp, or paper produced. Addition to the additive system should be made directly at the rate of 0.0096-7.97 lb (0.48 to 400 ppm active) per 1000 gallons. Repeat until control is achieved.

**Subsequent Dose:** When microbial control is evident, add this product at the rate of 0.0019-0.96 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 (0.48-200ppm active) 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 0.0096-6.05 lb (0.48 to 300 ppm active) per 1000 gallons. Continue until control is achieved.

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

**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 at a rate of 0.048-8.16 lb per ton of dry fiber produced. For inhibition of wet lap or sheet 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 20,000 ppm of this product in the solution applied to the paper sheet.

**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.

Use in Metalworking Fluids

AMICAL Flowable is recommended for use in metalworking fluids and lubricants to prevent fungal growth. The level of AMICAL Flowable to be incorporated into metalworking fluid concentrate will vary depending upon the dilution factor recommended by the manufacturer. For efficient fungistatic activity, a concentration of 240-7200 ppm AMICAL Flowable in the diluted fluid is suggested.

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