

464-670

9/23/2010

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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WASHINGTON, D.C. 20460

SEP 23 2010

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Abigail Trueblood
The Dow Chemical Company
1500 East Lake Cook Rd.
Buffalo Grove, IL 60089

Subject: Amical™ 48
EPA Registration Number: 464-670
Application Date: June 24, 2010
Receipt Date: June 25, 2010

Dear Ms. Trueblood:

The following amendment, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable

Proposed Amendment

Update label per the Amical RED

Conditions

Revise the label as follows:

- 1.) Revise the 6th statement under the "Precautionary Statements" to read "Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco."
2.) The "Paints, Leather Tanning, and Paper Production" directions must be brought into compliance with PR Notice 2000-6, Mandatory Labeling, by deleting the term, should, and stating "must."
3.) Revise the "Adhesives, Caulks, and Sealants" directions to be in compliance with PR Notice 2000-6, Mandatory Labeling, by deleting the term, recommended.
4.) Revise the 3rd statement under "Leather Tanning" by deleting the term, "recommendations" and stating "follow the normal protection directions."
5.) Revise the 4th statement under "Leather Tanning" by deleting the phrase, "Use level recommendations" and stating "Use rate range..."

CONCURRENCES

Table with 8 columns and 3 rows (SYMBOL, SURNAME, DATE)

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6.) Revise the last statement under "Preservation in Paper Plant Storage" directions by deleting the term, recommendations, and stating "directions."

General Comments

A stamped accepted 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 further questions concerning this letter, please contact me at 703-308-6416 or by email at [campbell-mcfarlane.jacqueline@epa.gov](mailto:campbell-mcfarlane.jacqueline@epa.gov) or Killian Swift by telephone at 703-308-6346 or by email at [swift.killian@epa.gov](mailto:swift.killian@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 Campbell-McFarlane*

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

Enclosure: EPA stamped label

CONCURRENCES

SYMBOL							
SUBNAME							
DATE							

AMICAL 48  
Master Label  
June 22, 2010

### AMICAL™ 48

Active Ingredient(s): Diiodomethyl p-tolyl sulfone . . . . . 95.0%  
Inert Ingredients . . . . . 5.0%  
Total . . . . . 100%

E.P.A. Registration No. 464-670  
E.P.A. Est. XXXX-XX-X

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

SEP 23 2010

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act as  
amended, for the pesticide,  
registered under EPA Reg. No. 464-670

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**

FIRST AID	
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eyes open and rinse slowly and gently with water for 30 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</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 a 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 by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN :</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 INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance and, give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment</li> </ul>
<b>HOT LINE NUMBER</b>	
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 preclude 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. Remove contaminated clothing and wash clothing before reuse.**

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

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**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 material (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. 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 the labeling.

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**USE IN PAINTS**

AMICAL 48 is an effective mildewcide and algicide for exterior and interior 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 48 will impart protection when used at levels between 1.6- 5 lb AMICAL 48 per 100 gallons of paint for severe conditions, while 1-3 lb AMICAL 48 per 100 gallons is sufficient for less severe conditions.~~

~~For all other paint applications methods, including airless sprayer and/brush/roller application: The maximum allowable concentration is 2.5 lb AMICAL 48 per 100 gallons of paint.~~

AMICAL 48 ~~should~~ be added during the last few minutes of the pigment grind for maximum dispersion. For mildew control of fire-retardant coating, add AMICAL 48 at 0.0015 to 0.3% at a point in the production process to ensure sufficient mixing with other dry ingredients.

**USE IN PIGMENT DISPERSIONS, INKS, EMULSIONS AND EXTENDER SLURRIES**

To inhibit the growth of spoilage fungi during storage of water-based suspensions and dispersions. AMICAL 48 will impart protection when dosed at 0.02-0.15% (w/w). Add AMICAL 48 at a point in the production process where sufficient mixing will assure good suspension of the material as other ingredients are added.

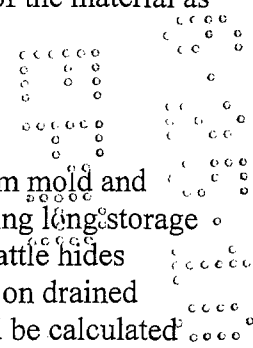
**USE IN ADHESIVES, CAULKS AND SEALANTS**

AMICAL 48 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 add 0.01- 0.30% AMICAL 48 at a point in the production process where sufficient mixing will assure good suspension of the material as other ingredients are added.

**USE IN LEATHER TANNING**

~~For use in leather tanning drum use only.~~

AMICAL 48 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 0.01-0.02% , for sheep hides (based on drained pickle weight) 0.05-0.08%, 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 0.02-0.04% for cattle, 0.08-0.15% 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 0.1-0.3 (% on wet blue weight). In all applications add the dry AMICAL 48 through the drum door, preferably by sprinkling across the width of the drum. This ~~should~~ be done just prior to



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chrome addition, or together with the formate, if formate is added dry prior to chrome. In the case of retan/color/fatliquor, add AMICAL 48 prior to the prime fatliquor feed.

**USE IN WOOD PRESERVATION (For Formulating 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 48 can be used for control of mildew, sapstain, and wood rotting organisms. Incorporate AMICAL 48 into appropriate vehicles to protect wood from stain and decay. AMICAL 48 can be utilized in either aqueous or solvent-based systems at concentrations ranging from 0.3-0.8% (w/w active ingredient). Solvent-based systems containing mineral spirits require a suitable co-solvent for the incorporation of AMICAL 48 into the system. Formulators are responsible for obtaining EPA registration of formulated products.

**USE IN RUBBER AND PLASTIC PRODUCTS**

Treated plastics cannot be used to manufacture children's toys. AMICAL 48 is recommended for PVC, polyurethane, rubber, thermoplastic rubber, and other polymeric based products, coating, adhesives, foams, and sealants requiring protection against microbial deterioration. For control of microbial deterioration, use 0.1-0.8% AMICAL 48 based on the total weight of solids in the formulation. AMICAL 48 can be incorporated into the formulation at any convenient stage of the manufacturing process.

**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, 0.5 to 5.0 lb of AMICAL 48 per 1000 lb dry fabric (500-5000 ppm) is needed. AMICAL 48 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 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.

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Intermittent or Slug Method- Initial Dose: When the system is noticeably fouled, add this product at the rate of 0.0008 to 0.8 lb per ton of pulp or paper produced. Addition to the additive system ~~should~~ be made directly at the rate of 0.004 to 3.32 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 0.0008 to 0.4 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 0.004-1.68 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 0.0008-0.4 lb per ton of pulp of paper produced. Additions of this product to the additive system ~~should~~ be made directly at the rate of 0.004 to 2.52 lb (0.48 to 300 ppm) per 1000 gallons. Continue until control is achieved.

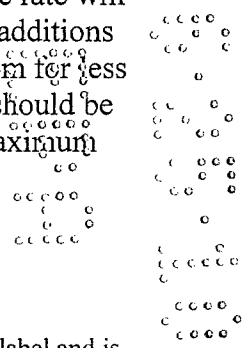
Subsequent Dose: Maintain by continuous feed of this product at the rate of 0.0008 to 0.4 lb per ton of pulp and paper product.

**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 at a rate of 0.02 to 3.4 lb 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 0.02 to 3.4 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 80 to 8000 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 for storage of microbial resistant materials up to 250 ppm 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.



**LIMITED WARRANTY AND DISCLAIMER**

~~Seller warrants that the product conforms to its chemical description as contained on this label and is reasonably fit for the purposes stated on this label when used in accordance with directions under normal conditions of use. THE WARRANTIES MADE IN THIS PARAGRAPH ARE SELLER'S SOLE WARRANTIES WITH RESPECT TO THE PRODUCT AND ARE MADE EXPRESSLY IN LIEU OF AND EXCLUDE ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER EXPRESS OR IMPLIED REPRESENTATIONS AND WARRANTIES.~~

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June 22, 2010

NET WT:  
Lot:

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

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