

39967-31

5/21/2010

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**U.S. ENVIRONMENTAL PROTECTION AGENCY**

Office of Pesticide Programs  
Antimicrobials Division (7510C)  
1200 Pennsylvania Avenue NW  
Washington, D.C. 20460

EPA Reg. Number: 39967-31	Date of Issuance: MAY 21 2010
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Term of Issuance:  
**Unconditional**

Name of Pesticide Product:  
**Metasol TK-100  
Liquid Concentrate**

NOTICE OF PESTICIDE:  
   Registration  
X Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Luanne Jeram  
Lanxess Corporation  
111 RIDC Park West Drive  
Pittsburgh, PA 15275-1112

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

Based on your response to the Thiabendazole RED, the EPA has reregistered this product. This action is taken under the authority of section 4(g) (2) of the Federal Insecticide, Fungicide and Rodenticide Acts, as amended. Registration under this section does not eliminate the need for continual reassessment of pesticides. The EPA may require submission of data at any time to maintain the registration of the subject product.

If you have any questions concerning this matter, please contact me at (703) 308-6341 or by email at [swindell.marshall@epa.gov](mailto:swindell.marshall@epa.gov) or ShaRon Carlisle at (703) 308-6427 or by email at [carlisle.sharon@epa.gov](mailto:carlisle.sharon@epa.gov).

Signature of Approving Official:  
  
Marshall Swindell  
Product Manager, Team 33  
Regulatory Management Branch II  
Antimicrobials Division (7510P)

Date:  
  
MAY 21 2010

# METASOL<sup>®</sup> TK-100 LIQUID CONCENTRATE

TO INHIBIT THE GROWTH OF MOLD AND MILDEW ON ADHESIVE FILMS, PAINT FILMS, PAPER PRODUCTS, AND NATURAL AND SYNTHETIC FIBERS AND COATINGS

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Avoid contact with eyes, skin and clothing. Mixer, loaders, applicators and other handlers must wear: Coveralls over long sleeved shirt and long pants, chemical-resistant footwear plus socks, chemical-resistant gloves made of any waterproof material, and chemical-resistant apron for mixing and loading and when cleaning equipment.

**User Safety Recommendations:** User should wash hands before eating, drinking, chewing gum, tobacco, or using the toilet. User must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users must remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep container closed when not in use.

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

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or reconditioning if appropriate.

**METAL CONTAINERS:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved state and local authorities.

**PLASTIC CONTAINERS:** Dispose as for metal containers. May also be incinerated or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## ENVIRONMENTAL HAZARDS

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 sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

IN CASE OF EMERGENCY, CALL: CHEMTREC 800-424-9300  
EPA Reg. No.: 39967-31  
EPA Est. No.:

INTERNATIONAL 703-527-3887  
Net Contents:  
Lot No.:

# LANXESS

LANXESS Corporation  
111 RIDC Park West Drive • Pittsburgh, PA 15275-1112

LABEL TEXT DATE: 1/13/2010

## KEEP OUT OF REACH OF CHILDREN DANGER

### FIRST AID

**IF ON SKIN OR CLOTHING:** 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 IN EYES:** 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. Call a poison control center or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** 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 by a poison control center or doctor.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsion may be needed.

Have a product container or label with you when calling a poison control center or doctor or going for treatment.

\* Metasol is a registered trademark of LANXESS Corporation

Active ingredient manufactured in India.

Notice: Seller expressly warrants that the product conforms to its chemical description. There are no warranties associated with the sale of this product expressed or implied, including, but not limited to the warranties of fitness for a particular purpose of merchantability.

ACTIVE INGREDIENT: 2-(4-Thiazolyl)benzimidazole, as the Hypophosphite Salt -----20.0%  
INERT INGREDIENTS: -----80.0%  
TOTAL 100.0%

## DIRECTIONS FOR USE

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

**Adhesive Films:** The following concentrations must be used to provide mildew control on water-based adhesive films. The concentrations are based on the total adhesive formulation weight. METASOL TK-100 Liquid Concentrate can be incorporated with the make-up water or as a post-additive in adhesive production. Tektamer 38 A.D. or other LANXESS preservatives should be incorporated into the aqueous adhesives formulation to inhibit in-can bacterial degradation during shelf storage.

Adhesive Type	% Concentration, Metasol TK-100 Liquid Concentrate
Polyvinyl Acetate	0.50-0.75%
Styrene-Butadiene	0.25-0.50%
Polyvinyl Alcohol	0.50-0.75%
Methyl Cellulose	0.25-0.75%
Hydroxyethyl Cellulose	0.25-0.75%
Acrylic	0.25-0.50%
Dextrin	0.25-0.50%
Casein	0.75%
Epoxy	0.25-0.50%
Polyester	0.25-0.50%

METASOL TK-100 Liquid Concentrate should not be used where the treated adhesive comes in contact with food packaging materials or on food contact surfaces. Testing should be conducted to assure compatibility with product formulation.

**Paint Films (Exterior):** The active ingredient in METASOL TK-100 Liquid Concentrate has been extensively tested in the laboratory under accelerated weathering conditions and panels have been exposed for periods up to four years at critical mildew locations in the United States. Millions of gallons of paints have been commercially produced and used in homes and industrial installations ranging from the Eastern shore to the Gulf Coast for periods up to five years. Recommendations are based on the successful results of these investigations. Tektamer 38 A.D. or other LANXESS preservatives should be incorporated into latex paint formulations to inhibit any bacterial degradation during shelf storage. Testing should be conducted to assure compatibility with product formulation.

Paint System	Lb/100 Gal
PVA	2.5-5.0
Acrylic	2.5-5.0
Vinyl Acrylic	2.5-5.0
Alkyd Modified Latex	5.0-7.5
Zinc Oxide Pigmented Latex	1.25-3.75
Oil House	5.0-7.5
Alkyd	5.0-10.0
Zinc Oxide Pigmented Alkyd & Oil Paints	2.5-5.0

Notice: Seller expressly warrants that the product conforms to its chemical description. There are no warranties associated with the sale of this product expressed or implied, including, but not limited to the warranties of fitness for a particular purpose of merchantability.

**Interiors:** METASOL TK-100 Liquid Concentrate is an effective mildewcide for interior coatings and masonry surface coatings where mold-resistant interior coatings are needed. METASOL TK-100 Liquid Concentrate should not be used in coatings that come in contact with food. The following recommendations are made.

Interior Paint Systems	Lb/100 Gal
TT-P-0029 Latex Flat	0.50-1.25
TT-P-650 Latex Primer	1.25-2.50
New York City Housing Authority Coatings	1.25-3.75
Sanitary Latex Semi-Gloss	1.25-5.00
Oleo-resinous Interiors	2.50-5.00

METASOL TK-100 Liquid Concentrate should be incorporated with the TiO<sub>2</sub> in the pigment grind for all paint systems. Testing should be conducted to assure compatibility with product formulation.

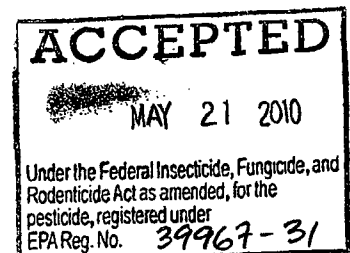
**Paper Products:** METASOL TK-100 Liquid Concentrate is most efficiently applied via the size tub or water troughs. METASOL TK-100 Liquid Concentrate is a water-soluble acidic salt solution. If the pH of this solution is raised above 4, the salt reverts to the insoluble 2-(4-thiazolyl)benzimidazole that will precipitate. The 2-(4-thiazolyl)benzimidazole is stable and active under a wide variety of pH conditions ranging from highly alkaline to highly acidic. However, once precipitation occurs, pick-up will be poor. The tub size or water trough solutions should be adjusted to a pH below 4.0. The METASOL TK-100 Liquid Concentrate should then be added with thorough agitation. It has been shown that the resulting pH has no adverse effects on the properties of the starch, equipment, or physical properties of the final product. The METASOL TK-100 Liquid Concentrate should be applied at dosage levels from 200 to 1000 ppm active ingredient based on the finished paper weight. For use in a coating color the METASOL TK-100 Liquid Concentrate should be added with agitation to the make-up water. Although subsequent raising of the pH with the binder or alkali will precipitate the 2-(4-thiazolyl)benzimidazole, this precipitate will be evenly distributed throughout the coating color. The use of METASOL TK-100 Liquid Concentrate in coating colors is recommended in addition to treatment of the base stock.

METASOL TK-100 Liquid Concentrate is a fungicide only. Tektamer 38 A.D. or other LANXESS preservatives should be incorporated into sizing solutions to inhibit any bacterial degradation during shelf storage.

**Note:** METASOL TK-100 Liquid Concentrate should be used only for the manufacture of non-food grade paper products. METASOL TK-100 Liquid Concentrate has not been cleared for use in paper or paperboard products intended for use in contact with food.

**Canvas Textiles:** METASOL TK-100 Liquid Concentrate is an effective product that has been used successfully in providing mildew and mold resistance to canvas textiles. The simplest treatment method is to prepare a trough with water at pH 4.0 and then add the METASOL TK-100 Liquid Concentrate to obtain the desired concentration. The fabric is passed through the solution until the proper amount of solution is absorbed on the fabric. A wetting agent may be used to aid the solution in penetrating the fabric. The METASOL TK-100 Liquid Concentrate should be applied at dosage levels from 500 to 3000 ppm active ingredient based on finished fabric. The amount necessary to provide the desired protection against mold and mildew can then be determined. If deposition of METASOL TK-100 Liquid Concentrate onto the canvas is desired, a subsequent wash with 1% soda ash solution will suffice. This can be followed by normal processing steps of the canvas textile. METASOL TK-100 Liquid Concentrate should be used for manufacture of canvas textiles only, such as tents and awnings.

**Nylon Carpeting:** Using spin finish application, add 0.25 - 1.00% METASOL TK-100 Liquid Concentrate based on total weight of the material being used.



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