

PRODUCTS

A highly effective preservative for paints, latexes, and metal-working lubricants against deterioration from bacteria and fungi!

Ingredients

411

Do not reuse container. Destroy 1 by burning it with wastes, or by dumping it.

and a number of other factors which are not mentioned in the report. The report also states that the results of the study are not conclusive and that further research is needed. The report is a valuable contribution to the understanding of the problem and provides a basis for further research.

DATE: 10/11/2011 10:00 AM
 FROM: [REDACTED]
 TO: [REDACTED]
 SUBJECT: [REDACTED]

CAUTION

HARMFUL IF SWALLOWED

Avoid contact with skin and eyes • Wash skin with plenty of water after handling • Do not wear clothing grossly contaminated with the product

**FOR USE IN MANUFACTURING
OR REFORMULATING PROCESSES ONLY**

YOU - Check your personal and financial records. Do you have a 30-day cable car, car, sports, clothing and other items? Are you a member of a club or association? Do you have any accounts for insurance, etc.?

LOT

100 LB/45.36 KG

Cameraman's Note

Foor Cop.

for manufacturing, reformulating, or repackaging as a disinfectant, algacide, and or fungicide.

SOLD BY

PRODUCED BY

EPA Reg. No. 37296-5

2010 COLE • BIRMINGHAM, MICHIGAN 48008

TECHNICAL BULLETIN

ANTIMICROBIAL AGENTS

BIODERM 300 PRESERVATIVE

BIODERM 300 PRESERVATIVE

BIODERM 300 Preservative is Products-Sol's designation for 1(3-chloroallyl)-3,5,7-triaza-1-azonia-adamantane chloride to which a stabilizer (sodium bicarbonate) has been added. Sodium bicarbonate was added to improve manufacturing and storage of the compound; specifically, it reduces the decomposition-flammability characteristic of the active ingredient to a substantial degree, thereby improving safety in storage and handling. These benefits are achieved without producing any untoward effects on the product for which it is employed as a preservative.

The adhesives industry can utilize this preservative to protect its products against deterioration and spoilage during manufacture, storage, and service. Metalworkers can incorporate BIODERM 300 into metal-cutting fluids to eliminate odor, rancidity, and acidity, and to improve stability. BIODERM 300 preserves water-based latex paints in the can while having no effect on the viscosity, stability, and other physical properties of the formulation or on the color-fastness of the paint film. It can be used by manufacturers of pulp and paper to preserve water-based coating formulations. Textile producers can use it to preserve spinning emulsions and finishing solutions.

BIODERM 300 may also be utilized in preserving raw latex emulsions, joint-sealant products, biodegradable detergents, floor-wax emulsions and floor polishes, inks, laundry starches, and polyvinyl alcohol.

NOTE: BIODERM 300 is incompatible with casein in both liquid and dry systems. Reports also indicate BIODERM 300 to be incompatible with some types of acid-modified clays.

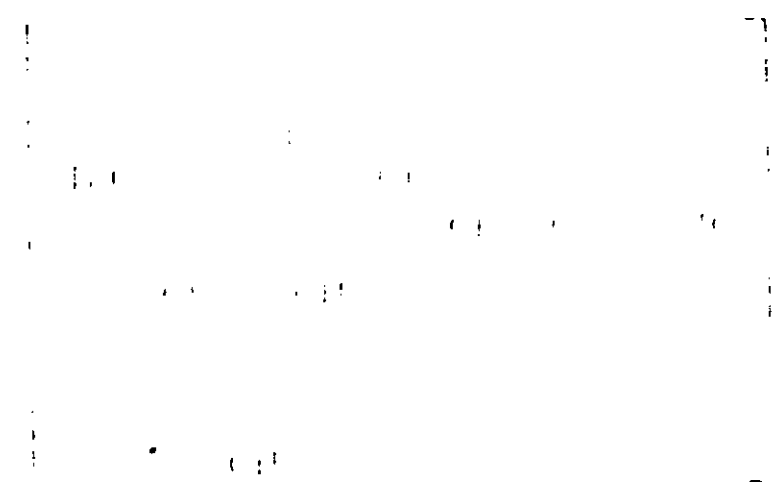
In the area of end-product quality control, the effect of introducing a contaminate (microbial or chemical in nature) into the finished product is always of concern. The manufacture of products containing cellulosic thickeners offers an opportunity for enzymes to be added inadvertently to products such as latex paints. These enzymes can cause a loss of viscosity to such a degree as to destroy the product by hydrolyzing the cellulosic thickener. BIODERM 300 antimicrobial has been proven to be very effective in the control of bacteria and fungi. These microorganisms, left unchecked, could cause a stored emulsion to lose viscosity. On the other hand, these preservatives are not expected to act as inhibitors against the intact enzymes that could be introduced into the formula from raw materials or from inadequate housekeeping practices.

NOTE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, or to any damages resulting from such use.

PHYSICAL PROPERTIES

(Laboratory results typical of the product, but not to be confused with or regarded as specifications.)

Structure



Formula	$C_{12}H_{11}N_2Cl$
Molecular Weight	231.2
Bulk Density	1.35, lb./ft.
Specific Gravity	1.73 g/cc
Boiling Value	0.9739 g/lb.

The active ingredient, 1-(3-chloroallyl)-3,5,7-trimethyladamantane chloride, exhibits the following solubilities (approx. g/100 cc. at 25°C):

Acetone	0.05
DOWANOL™ DPM Glycol Ether	0.17
DOWANOL™ PM Glycol Ether	0.36
Ethanol, Absolute	4.43
Gasoline (95%)	2.17
Hexane	0.04
Isopropanol, Anhydrous	0.5
Propylene Glycol, U.S.P.	0.6
Water	2.220

The inert ingredient, sodium bicarbonate, is insoluble in all of the above solvents, with the exception of water. Bioderm 300 is soluble in water to the extent that 1.0% (by weight) solutions can easily be prepared. The difference in the relative solubility of the active ingredient and the sodium bicarbonate can be used by the formulator to separate the two components. For example, a formulator can add only the active ingredient to his product by putting Bioderm 300 in isopropanol and remove it by carbonate by adding a solution of bicarbonate.

Concentrated and diluted water solutions of Bioderm 300 have good pH stability, the initial pH of such solutions being approximately 8. Solutions in the range of 1.00% are only slightly alkaline and stabilize at a pH of about 8.0. It could also be noted that a 0.1% solution of Bioderm 300 has been stored for 2 weeks without losing its preservative properties. Therefore, it is suggested that concentrated solutions of Bioderm 300 can be used as long as the slight color developed in the solution is not detrimental to the substrate to which it is added.

Preparation and storage of solutions of Bioderm 300 are best done in vented vessels. Special precaution must be taken when using concentrated solutions since a concentrated solution can develop pressure in a closed system, especially if it becomes contaminated with an acid compound, the nature of carbon dioxide.

SALES SPECIFICATION (Method of Analysis 24695b)

Description	White to off-white powder
Active ingredient(s)	1-(3-chloro-4-ethyl-5-pyridyl)-1H-tetrazole-5-carboxamide hydrochloride
Inert ingredients	1. Lactose monohydrate 2. Croscarmellose sodium 3. Hydroxypropyl methylcellulose 4. Polyethylene glycol 400 5. Magnesium stearate
Color (Cordier, max)	0.5
Size (Apertures, Through #5 U.S. Standard Sieve)	100%

Methods of analyses for these items may be obtained from Product-Sol, Inc., 2016 Cole Ave., Birmingham, Michigan 48008

Meets the requirements of Food Additive Order for CFR 121.225(b) for color additives in adhesives and CFR 121.252(c) for preservatives in polymeric materials in contact with dry edible bulk foods, and CFR 121.259(c) for color additives in polymeric materials in contact with dry edible bulk foods used as pigment binders in paper and board and in contact with dry edible bulk foods.

NOTICE TO FORMULATORS:

Any substance or mixture of substances (pesticide formulated with the active ingredient) must be tested for efficacy and safety in accordance with the procedures and requirements of the Environmental Protection Agency. The registration of a pesticide formulated with a new active ingredient does not require the registration of test procedures for the new active ingredient.

PACKAGES

BIODERM 300 preservative is sold in 1 liter bottles. The preservative is used in the following manner:

ANTIFUNGAL AND ANTIBACTERIAL EFFICIENCIES

[illegible][illegible]

APPLICATIONS

Product or Industry	Reason for Treatment	Suggested Concentration	How to Apply
Adhesive	To prevent formation of mold and mildew during storage and use	0.01-0.05% by wt of formulation	Add to adhesive formulation
Construction	To prevent mold and mildew on building materials, including concrete and plaster	0.01-0.2% by wt of formulation	Varies depending on application
Detergents	To increase shelf life	0.01-0.1% by wt of formulation	Add to detergent formulation
Water-Based Floor Waxes and Polishes	To increase shelf life	0.02-0.2% by wt of formulation	Add to wax or polish formulation
Water-Based Inks	To increase shelf life and maintain print quality and prevent mold growth	0.01-0.2% by wt of ink	Add to ink formulation
Latex Emulsions	To prevent bacterial deterioration and mold growth on latex and associated materials	0.01-0.5% by wt of latex	Add to latex formulation
Laundry Starch	To increase shelf life and prevent mold growth	0.02-0.2% by wt of formulation	Add to starch formulation
Metal Working	To prevent corrosion and mold growth on metal surfaces	0.01-0.1% by wt of formulation	Add to water-based metalworking fluids
Paint	To increase shelf life and prevent mold growth in paint formulations	0.01-0.1% by wt of formulation	Add to paint formulation
Pulp and Paper	To preserve coating and printing properties and prevent mold growth on latex	0.01-0.2% by wt of formulation	Add to pulp or paper formulation
Textiles	To increase shelf life and prevent mold growth on textile materials	0.01-0.2% by wt of formulation	Add to textile formulation

Bioderm 300 Preservative •

HEALTH HAZARDS, PRECAUTIONS FOR SAFE HANDLING, FIRST AID MEASURES

The following statements are necessarily general in nature since the circumstances surrounding the customer's use of the product are unknown and beyond Product-Sol's control. Regarding the hazards likely to be encountered in the normal operation with the product, request whenever possible. Address inquiries to Product-Sol, Inc., 2010 Goleb Ave., Birmingham, Michigan 48008.

Health Hazards

Direct contact of Biederm 300 Preservative with the eye may cause some irritation, which should be expected to clear up in a short time.

Precautions for Safe Handling

Safety glasses or their equivalent should be worn when this antineoplastic solution is handled. Contamination of hands and face should not be allowed. If face has been contact.

First Aid Measures

Eyes. Contaminated eyes should be flushed with plenty of water. Medical attention should be obtained if irritation develops.

Skin. Contaminated skin should be flushed with plenty of water. Medical attention should be obtained if irritation develops.

Safe Storage of BIEDERM 300

Biederm 300 must be stored in a cool, dry place below 40°F (40°C) and must remain tightly closed at all times. The container should be kept upright.

If the entire content of a Biederm 300 container is required, avoid the polyethylene liner in the cap or the inner surface of the neck. A small amount of Biederm 300 can be accepted for use.

As previously noted, the preservation of the Biederm 300 solution must be done in accordance with special precautions to insure that the solution is not contaminated. Contaminated solution can develop an odor and should be discarded. The odor is not harmful, but it may impair the reliability of the solution.

FURTHER INFORMATION

Further information concerning Biederm 300 Preservative can be obtained by writing Product-Sol, Inc., 2010 Goleb Ave., Birmingham, Michigan 48008.