

DIOMIST*

DIPHENYLSTIBINE 2-ETHYL HEXOATE

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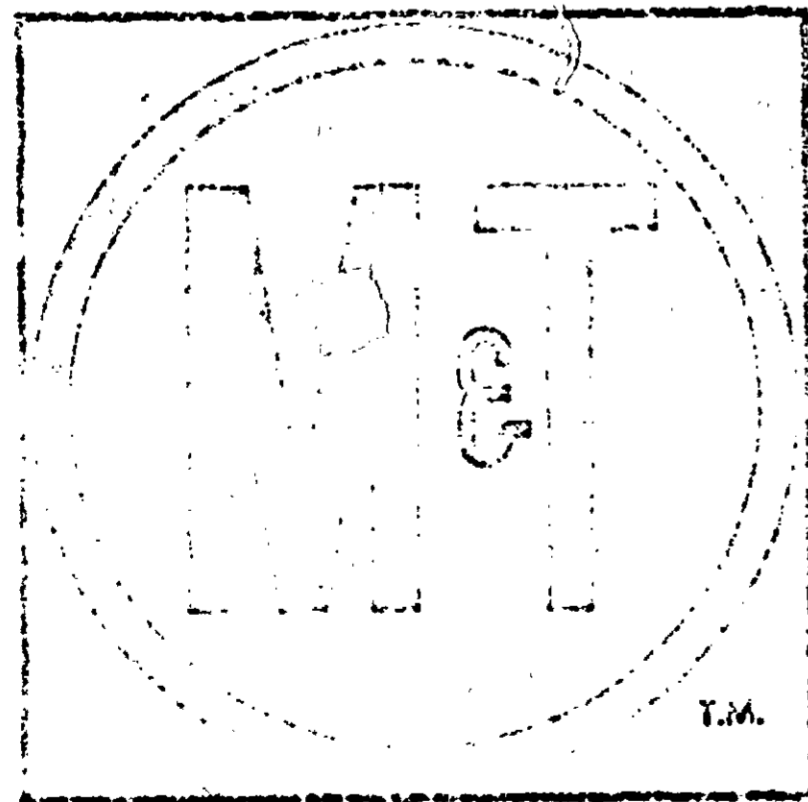
UNDER THE FEDERAL INSECTICIDE
 FUNGICIDE AND RODDENT ACT
 FOR ECONOMIC PEST REGISTRATION
 UNDER NO. 5204-41 SUBJECT
 TO ATTACHED COMMENTS.

FOR USE IN MANUFACTURING OTHER ECONOMIC POISONS

DIOMIST CHEMICALS INC.

* TRADE MARK OF M&T CHEMICALS INC.

GENERAL OFFICES RAILWAY, N. J.



- ORGANIC & INORGANIC CHEMICALS
- MINERALS & CERAMICS PRODUCTS
- ORGANIC COATINGS & COMPOUNDS
- PLATING PROCESSES & EQUIPMENT

OFFICES IN PRINCIPAL CITIES

ACTIVE INGREDIENTS

diphenylstibine 2-ethyl hexoate . . 95% Min.

INERT INGREDIENTS..... 5% Max.

DANGER! KEEP OUT OF REACH OF CHILDREN
 MAY BE FATAL IF SWALLOWED OR ABSORBED
 THROUGH SKIN
 CAUSES SEVERE EYE AND SKIN IRRITATION

Do not get in eyes, on skin or on clothing.
 Do not breathe dust.
 Wear goggles, rubber gloves and respirator when handling.
 Avoid storage near food and feed products.
 Wash thoroughly after handling.



First Aid

In case of contact, immediately remove contaminated clothing and wash skin with soap and water. If irritation persists, get medical attention.

In case of contact with eyes, flush with plenty of water and get medical attention

Wash contaminated clothing before re-use.

READ TECHNICAL DATA BULLETIN ABOUT THIS PRODUCT PRIOR TO USE

USDA Reg. No. 5204-

APR 12 1968
FEDERAL BUREAU OF INVESTIGATION
FOR ECONOMIC PROTECTION
ED UNDER NO. 5204-11
SUBJECT TO ATTACHED DOCUMENTS

bioMet* Diphenylstibine 2-Ethyl Hexoate
For Use In Manufacturing Other Economic Poisons

bioMet* diphenylstibine 2-ethyl hexoate is a new odorless antibacterial chemical which provides effective control of gram positive and gram negative microorganisms when used in formulations as an additive to flexible poly-vinyl chloride systems. In formulations of dioctylphthalate or epoxidized soybean oil, it provides outstanding protection for PVC against mildew and discoloration even under the most severe conditions of soil burial. The broad spectrum antibacterial control provided by this addition to vinyl film affords excellent protection for products such as:

- wall covering
- upholstery (including auto seat covers)
- shower curtains
- ~~swimming pool liners~~
- rug undercoating

DEFLECTION made per Co. Letter of 1-2-68
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These products treated with bioMet diphenylstibine 2-ethyl hexoate formulations will control the growth of many disease causing bacteria including Staphylococcus aureus and Pseudomonas aeruginosa.

In addition to providing excellent compatibility with standard flexible vinyl systems, bioMet diphenylstibine 2-ethyl hexoate formulations protect the manufacturing area from the disagreeable odors generally associated with PVC processing. This odor protection is also afforded to the finished product. It also provides protection against color in clear and white PVC films and will not alter its heat stability.

Physical Properties

Active Ingredient: diphenylstibine 2-ethyl hexoate
 Appearance: White to off-white crystals.
 Acid No: 130 - 135

The ability of bioMet diphenylstibine 2-ethyl hexoate formulations to inhibit the growth of many microorganisms is demonstrated below. The spectrum of control includes gram positive bacteria, gram negative bacteria, common molds, wood rotting fungi, active cellulose digesting fungi, and pathogenic fungi.

<u>Microorganisms</u>	<u>Min. level Required for Inhibition (P.P.M. - of Active Ingredient)</u>
<u>Gram Positive Bacteria</u>	
Staphylococcus aureus	8
Streptococcus faecalis	35
Micrococcus flavus	16
Bacterium ermoniegenes	20
Bacillus mycoides (spore former)	40
Bacillus cereus (spore former)	35
Bacillus subtilis (spore former)	30
Mycobacterium smegmatis	35
Sphaerotilus	25
<u>Gram Negative Bacteria</u>	
Aerobacter aerogenes	31
Paracolobactrum aerogenoides	16
Salmonella typhosa	30

<u>Microorganisms</u>	<u>Min. Level Required for Inhibition (PPM - of Active Ingredient)</u>
<u>Gram Negative Bacteria (Continued)</u>	
Shigella dysenteria	30
Proteus mirabilis	20
Pseudomonas aeruginosa	31
Alcaligenes viscolactis	30
Escherichia coli	16
<u>Common Molds</u>	
Aspergillus terreus	63
Aspergillus oryzae	125
Aspergillus clavatus	125
Aspergillus flerus	63
Aspergillus niger	250
Penicillium piscarium	125
Penicillium expansum	63
Penicillium funiculosum	125
Penicillium fusco-glaucum	31
Trichoderma lignorum	63
Trichoderma viride	250
Pullularia pullulans	500
<u>Wood Rotting Fungi</u>	
Lentius lepidus	16
Lenzites trabea	31
Porie monticola	16

<u>Microorganisms (Continued)</u>	<u>Min. Level Required for Inhibition (PPM - of Active Ingredient)</u>
<u>Active Cellulose Digesting Fungi</u>	
Myrothecium verrucaria	63
Chaetomium globosum	250
<u>Pathogenic Fungi</u>	
Candida albicans	31
Trichophyton mentagraphytes	16

Toxicology-Hygiene of bioMet® diphenylstibine 2-ethyl hexoate

bioMet diphenylstibine 2-ethyl hexoate is very hazardous to the eyes. Upon contact it will cause damage. The effectiveness of an eye lavage with water is considerably less than that with most similar products. Therefore, it is advisable to wear chemical goggles and/or full-face shield for eye protection when handling this product.

This material is very irritating to the skin and is capable of producing damage. In addition to being irritating dermally, bioMet diphenylstibine 2-ethyl hexoate may be moderately toxic when absorbed through the skin. Therefore, it is advisable to wear rubber gloves and protective clothing when using this product.

bioMet diphenylstibine 2-ethyl hexoate is toxic orally and care must be taken to avoid accidental swallowing.

Suggested First Aid

Eye contact with bioMet diphenylstibine 2-ethyl hexoate should be treated by immediately flushing with copious amounts of water for fifteen minutes. Preferably, a gentle continuously flowing stream of water should be directed into the open eye (held open if necessary) for fifteen minutes. A physician should then be consulted.

Suggested First Aid (Continued)

In the event of external body contact with bioket diphenylstibine 2-ethyl hexoate, the area should be washed thoroughly with soap, containing a builder with alkaline reserve action, and water followed by a thorough rinsing with water. Contaminated clothing should be removed and washed with soap and water before reuse.

Care should be exercised to prevent the spreading of bioket diphenylstibine 2-ethyl hexoate to the eyes, nose, and mouth.

Toxicology-Hygiene of PVC Film Protected with bioket diphenylstibine 2-ethyl hexoate Formulations

Toxicological evaluations using PVC film protected with bioket diphenylstibine 2-ethyl hexoate formulations indicate that dermal contact will not cause irritation or sensitization. In tests performed with this vinyl film, no skin irritation was observed after repeated animal exposures of 10 and 28 days.