

## 24 Thiuram Mix – Patient Information

Your T.R.U.E. TEST result indicate that you have a contact allergy to thiuram mix or one of its components. This contact allergy may cause your skin to react when it is exposed to these substances, although it may take several days for the symptoms to appear. Typical symptoms include redness, swelling, itching and fluid-filled blisters.

### Thiuram mix contains the following four substances:

- Tetramethylthiuram monosulfide
- Disulfiram
- Tetramethylthiuram disulfide
- Dipentamethylenethiuram disulfide

These substances are used as fungicides and pesticides, and in the manufacture of many rubber products. You are most likely to contact this substance when using, wearing or handling natural or synthetic rubber products at work or at home.

### Where is thiuram mix or one of its components found?



*At work*, you may find thiuram mix or one of its components in:

- **Industrial and safety products** made with natural rubber, butyl rubber, nitrile or neoprene - such as boots, shoes, adhesives, plugs, goggles, mats, headphones, masks, respirators, aprons, gloves, cords, tubing, insulation, and sheeting
- **Office products** made with natural rubber, nitrile or neoprene - such as rubber bands, erasers, mats, and utility gloves
- **Health care equipment** made with natural rubber, butyl rubber, nitrile or neoprene - such as medical and utility gloves, masks, bed sheeting, dental dams, anesthesia equipment, aprons, and tubing
- **Sports equipment** made with natural rubber, butyl rubber, nitrile or neoprene - such as wetsuits, shoes, boots, masks, racquet and club handles
- **Chemicals** used to prevent mildew or mold
- **Agricultural chemicals** used as fungicides, seed protectants, and pesticides



*At home*, you may find thiuram mix or one of its components in:

- **Household products** made with natural rubber, butyl rubber, nitrile or neoprene - such as rubber bands, ear- and headphones, masks, condoms and diaphragms, goggles, shoes, utility gloves, swimwear, toys, hoses, tubing, and elastic
- **Sports equipment** made with natural rubber, butyl rubber, nitrile or neoprene - such as shoes, wetsuits, boots, masks, racquet and club handles
- **Chemicals for the garden** such as fungicides, pesticides and animal repellents

## 24 Thiuram Mix

### How can you avoid thiuram mix or one of its components?

- Avoid direct skin contact with rubber products in your car, at work and at home. Use rubber-free alternatives made of vinyl, plastic, leather, wood or fabric.
- Use fabric or plastic films to handle rubber products and avoid direct skin contact.
- Only use products that do not list thiuram mix, one of its components, or related chemicals on the label, ingredients list or Material Safety Data Sheet (MSDS).
- Tell your physician, pharmacist, dentist, veterinarian, beautician and hairdresser that you are allergic to thiuram mix, which is often used in rubber products. Ask for rubber products that do not contain thiuram mix or related substances.
- Wear protective gloves (fabric or leather) when handling dry rubber goods at work and at home.
- Use heavy duty non-rubber gloves (Allerderm® Heavy Duty vinyl or Silvershield®/4H® gloves) when working with chemicals that might contain thiuram mix or one of its components.
- If you think that you contact thiuram mix or one of its components at work, ask your employer for MSDS or manufacturer information on the product(s). Wear protective clothing when handling rubber hoses, seals, cables, etc. Talk to your employer about using a different product.

### What should you look for and avoid?\*

Avoid products that list thiurams or the following names in the ingredients, MSDS or package insert.

- **Tetramethylthiurammonosulfide** or bis(dimethylthiocarbamoyl) sulfide; tetramethylthiuram sulfide; tetramethyldithiocarbamic acid anhydrosulfide; sulfide, bis(dimethylthiocarbamoyl)
- **Tetramethylthiuramdisulfide** or Thiram; bis(dimethyl thiocarbamoyl)disulfide; tetramethylthioperoxydicarbonic diamide; N,N'-(dithiodicarbonothioyl)bis(N-methylmethanamine); tetramethylthiocarbamoyldisulphide
- **Disulfiram** or 1,1'-dithiobis(N,N-diethylthioformamide); bis(N,N-diethylthiocarbamoyl) disulfide; tetraethylthiuram disulfide; tetraethylthioperoxydicarbonic diamide
- **Dipentamethylenethiuramdisulfide** or disulfide, bis(1-piperidinylthioxomethyl); bis(pentamethylene)thiuram disulfide; 1,1'-(dithiodicarbonothioyl)bispiperidine

If your skin is regularly exposed to rubber, you may develop reactions to other substances commonly used in the manufacture of rubber, such as mercaptobenzothiazoles, mercapto mix and thioureas.

## 24 Thiuram Mix

### What are some products that may contain thiuram mix or related substances?\*

- Vitavax® RS Flowable seed protectant
- Antabuse® medication for alcoholism
- Gloves, condoms, bottle nipples and other products made of natural rubber, butyl rubber, nitrile or neoprene
- Rootone® with fungicide
- Chew-Not™ Deer Repellant

### What products may NOT contain thiuram mix or related substances?\*

- Miracle Gro® Fast Root Rooting Hormone
- Fludioxonil (Maxim) or Captan™ fungicides
- N-Dex® Free Ultimate nitrile gloves
- Elastyfree® and Elastylite® surgical gloves (thermoplastic copolymer)
- Ultra Preserve® neoprene surgical and exam gloves
- True Advantage® nitrile surgical and exam gloves
- Products made entirely of vinyl (PVC), plastic, silicone, polyurethane, polyethylene or acrylates
- Copper-based fungicides
- Deer Off™ Deer Repellant
- Allerderm® nitrile exam gloves
- Trojan Supra® Microsheer™ polyurethane condoms
- Allerderm® vinyl exam gloves
- Durex® Avanti polyurethane condoms
- Allerderm® Heavy Duty Vinyl utility gloves

\*For additional information about products that might contain thiuram mix or related substances, go to the Household Product Database online (<http://householdproducts.nlm.nih.gov>) at the United States National Library of Medicine. These lists are brief and provide just a few examples. They are not comprehensive. Product formulations also change frequently. Read product labels carefully and talk to your doctor if you have questions. These are general guidelines. Talk to your doctor for more specific instructions.



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For further information about contact allergies and patch testing, visit [www.truestest.com](http://www.truestest.com).