

Your TRUE TEST results indicate that you have a contact allergy to black rubber mix chemicals. This contact allergy may cause your skin to react when it is exposed to this substance, although it may take several days for the symptoms to appear. Typical symptoms include redness, swelling, itching and fluid-filled blisters.

Black rubber mix contains the following three substances:

- N-isopropyl-N'-phenyl paraphenylenediamine
- N-cyclohexyl-N'-phenyl paraphenylenediamine
- N, N'-diphenyl paraphenylenediamine

These allergens are rubber additives known as antioxidants. Because they discolor the rubber, these additives primarily are used to produce black rubber.

### WHERE IS BLACK RUBBER MIX OR ONE OF ITS COMPONENTS FOUND?

**At work, you may find black rubber mix or one of its components in the manufacture of:**

- Black rubber products such as tires, belts, masks, hoses, cables, aprons, gloves, gaskets, flanges, stoppers, shoes and boots, sheeting and flooring
- Black rubber components on health care and laboratory equipment
- Office products made with black rubber components such as feet and wheels on equipment

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

The black rubber mix ingredients are less common in products for home use, but they may be found in certain types of rubber articles.

- Household products made with black rubber such as masks and goggles, shoes and tires, watchbands, underwear elastic, stockings, dental tips
- Sports equipment made with black rubber such as boots, masks, squash balls, and racquet and club handles

The black rubber mix ingredients are seldom used in the manufacture of rubber gloves for domestic or hospital use.

Hair dyes and textile dyes may cross react with the black rubber mix chemicals.

### HOW CAN YOU AVOID BLACK RUBBER MIX OR ONE OF ITS COMPONENTS?

- Avoid skin contact with black and dark gray rubber. If an object looks like it is made of rubber and it is black, it probably will be a problem. Avoid black rubber sports equipment. Carry gloves in your car in case of a tire change. Use caution when handling other parts that may contain rubber.
- Workers with this allergy may experience a problem handling rubber hoses, seals and cables. If you suspect that you are being exposed to this allergen at work, consult your employer regarding Material Safety Data Sheet (MSDS). Talk to your employer about using a different product or about wearing protective gloves and clothing.
- Only use products that do not list black rubber mix or one of its components or related chemicals on the label, ingredient list or MSDS. If no information is available, contact the product manufacturer.
- Tell your physician, pharmacist, dentist, veterinarian, beautician and hairdresser that you are allergic to black rubber mix or one of its components.
- If you must handle black rubber products, wear protective gloves. Utility or disposable gloves made of fabric, natural or synthetic rubber or vinyl are good for protecting you from black rubber mix or one of its components.

### WHAT SHOULD YOU LOOK FOR AND AVOID?\*

Avoid products with black rubber mix or the following names in the list of ingredients, MSDS or package insert.

- N-Isopropyl-N'-phenyl-paraphenylenediamine or N-phenyl-N'-isopropyl-p-phenylenediamine
- N-Cyclohexyl-N'-phenyl-paraphenylenediamine or N-cyclohexyl-N'-phenyl-1,4-benzenediamine
- N,N'-Diphenyl-paraphenylenediamine or diphenyl-p-phenylenediamine; 1,4-dianilinobenzene; p-phenylaminodiphenylamine; p-bis(phenylamino)benzene; 4,4'-diphenyl-p-phenylenediamine

Common trade names:

- N-Phenyl-N-cyclohexyl-p-phenylene-diamine (CPPD) Phenylcyclohexyl PPD Flexzone™ GH
- Isopropyl-N-phenyl-p-phenylenediamine (IPPD)
- Akrochem® Antioxidant ANTO "H"™ IP
- Isopropyl 0 PPD
- Flexzone 3-C IPPD
- Permanex™ PD1
- Santoflex®
- N,N -Diphenyl-p-phenylenediamine (DPPD) Diphenyl® PPD

### WHAT ARE SOME PRODUCTS THAT MAY CONTAIN BLACK RUBBER MIX OR ONE OF ITS COMPONENTS?\*

Products made with black rubber such as tires and wheels, industrial belts, masks and goggles, boots and shoes, sports equipment, plugs and stoppers.

### WHAT PRODUCTS DO NOT CONTAIN BLACK RUBBER MIX OR ONE OF ITS COMPONENTS?\*

Products made entirely of vinyl (PVC), plastic, silicone, polyurethane, polyethylene, or acrylates.

\*These lists are brief and provide just a few examples. Read product labels carefully and talk to your doctor if you have any questions. Product formulations may change from time to time without notice. Talk to your doctor for specific instructions. For additional information about products that might contain **black rubber mix** or a related substance, go to the Household Products Database online ([householdproducts.nlm.nih.gov](http://householdproducts.nlm.nih.gov)) at the United States National Library of Medicine.