

20 *p*-Phenylenediamine – Patient Information

Your T.R.U.E. TEST results indicate that you have a contact allergy to *p*-phenylenediamine. 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.

p-Phenylenediamine is a dark dye used in almost all permanent hair dyes and some semi-permanent hair coloring.

Where is *p*-phenylenediamine found?



At work, you may find *p*-phenylenediamine in:

- Dyes and coloring agents for textiles, furs and other products
- Permanent and some semi-permanent hair dyes
- Photographic developers
- Temporary, paint-on and black henna tattoos
- Black rubber products and equipment parts
- Printing inks



At home, you may find *p*-phenylenediamine in:

- Permanent and some semipermanent hair coloring products
- Photographic developers
- Textile and fur dyes
- Temporary, paint-on and black henna tattoos
- Coloring agents for facial hair
- Printing inks

How can you avoid *p*-phenylenediamine?

- Only use products that do not list *p*-phenylenediamine or related chemicals on the label, ingredients list or Material Safety Data Sheet (MSDS). If there is no information, talk to your pharmacist or doctor.
- Tell your physician, pharmacist, dentist, veterinarian, beautician and hairdresser that you are allergic to *p*-phenylenediamine. Ask for preparations that do not contain *p*-phenylenediamine or related substances. Be sure to test any hair coloring products before use according to the manufacturer's directions.
- You may also react to some textile dyes related to *p*-phenylenediamine. Talk to your doctor about avoiding clothing, fabric and furs in certain colors.
- If you must use products containing *p*-phenylenediamine on others, wear protective gloves. Utility and disposable gloves made of natural or synthetic rubber, or vinyl, may provide sufficient protection for working with *p*-phenylenediamine depending on the product.
- If you think that you contact *p*-phenylenediamine at work, ask your employer for MSDS or manufacturer information on the product(s). Talk to your employer about using a different product or wearing protective gloves and clothing.

20 *p*-Phenylenediamine

What should you look for and avoid?*

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

- *p*-Phenylenediamine or paraphenylenediamine; 4-phenylenediamine; phenylenediamine; *p*-diaminobenzene; 4-aminoaniline; 1,4-benzenediamine; 1,4-diaminobenzene

You may also react to *p*-phenylenediamine-related substances in textiles, hair colorings and other products:

- Aniline yellow dyes such as *p*-aminoazobenzene or *p*-Dimethylaminoazobenzene
- 4,4'-Methylenedianiline in some rubbers, plastics and epoxy resins
- Other aminobenzene-related compounds
- Disperse Orange dye 1-Amino-2-methylan-thraquinone
- Hair dye *p*-toluenediamine

What are some products that may contain *p*-phenylenediamine?*

- Just For Men® Brush In Mustache, Beard & Sideburns
- L'Oreal® Preference & Feria Haircolor
- Clairol® Ultress Custom Color
- Revlon® High Dimension Permanent Haircolor
- Garnier® Nutrisse Permanent Crème Haircolor
- Temporary, paint-on and black henna tattoos
- Clairol® Natural Instincts for Men Haircolor
- Just For Men® Shampoo In Haircolor

What products do NOT contain *p*-phenylenediamine?*

- Lady Grecian® Formula
- Temporary Color Spray
- Clairol® Loving Care Haircolor
- Vegetable-based hair dyes such as juglone from walnut shells
- Jerome Russell's Color Mousse
- Grecian® Formula
- Sun-In®, Spray-In Hair Lightener

*For additional information about products that might contain *p*-phenylenediamine or a related substance, 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.