

## NA07: 4-Phenylenediamine Base

### CAS#: 106-50-3

#### Patient Information

Your patch test result indicates that you have a contact allergy to 4-phenylenediamine base. 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.

#### Where is 4-phenylenediamine base found?

Phenylenediamine (PPD) is a chemical substance used in the production of many types of dyes and pigments, including almost all permanent and some semi-permanent hair-coloring products. It is also added to real henna to create "Black Henna." You may also find phenylenediamine in photographic developers, textile and fur dyes, temporary, paint-on and black henna tattoos, dark-colored cosmetics, lithography plates, photocopying and printing inks, black rubber, oils, greases, and gasoline.

#### How can you avoid contact with 4-phenylenediamine base?

Avoid products that list any of the following names in the ingredients:

- 1,4-Benzenediamine
- Cl 76060
- 1,4-Diaminobenzene
- Al3-00710
- CCRIS 509
- Developer 13
- EINECS 203-404-7
- Furrine D
- Futramine D
- Pelagol D
- PPD
- Rodol D
- Tertral D
- p-Aminoaniline
- p-Diaminobenzene
- 1,4-Phenylenediamine
- p-Phenylenediamine
- 4-Aminoaniline
- Benzofur D
- Oxidation Base 10
- Developer PF
- Fouramine D
- Furro D
- Paraphenylenediamine
- Peltol D
- Renal PF
- Santoflex LC
- USAF EK-394
- p-Benzenediamine
- p-Phenyldiamine

#### What are some products that may contain 4-phenylenediamine?

- Black Rubber Products:
  - Shoes
  - Watch bands
- Hair Dyes
- Printing Inks
- Tattoos:
  - Black henna
  - Paint on
  - Temporary

\*For additional information about products that might contain **4-phenylenediamine base**, go to the Household Product Database online ([householdproducts.nlm.nih.gov](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 any questions. These are general guidelines. Talk to your doctor for more specific instructions.