

Your T.R.U.E. TEST results indicate that you have a contact allergy to cobalt dichloride. 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.

Cobalt is a silvery metal with many properties similar to those of iron and nickel. Cobalt is used with other metals to make metal alloys.

## WHERE IS COBALT FOUND?

### At work, you may find cobalt in:

- Bricks and cement
- Metal carbide manufacturing, etching, grinding, welding & metal working materials
- Cobalt-based pigments, additives and drying agents in paints
- Catalyst/promoter in resins and plastics
- Printing inks
- Cobalt-based pigments and glazes during pottery manufacture and finishing
- Orthopedic and dental implants, dental prosthesis

Major industrial use of cobalt is in alloys or as a binder of tungsten in hard metals. Cobalt is present in magnets, welding rods (also in the smoke) and welding stainless steel. Industrial exposure to cobalt can include glass, lubricating oils and animal feeds. Cobalt is used in the rubber tire industry as an oxidizing agent in automobile exhaust control and as a catalyst or accelerator for the production of terephthalate, polyester and acrylate plastics.

### At home, you may find cobalt in:

- Cobalt-based pigments, additives & drying agents in ceramic paints and glazes
- Some spray paints and enamels, wood stains, paints and finishes
- Bricks and cements
- Etching and grinding metal carbides
- Metal tools, utensils & objects such as keys, magnets, clothing fasteners & jewelry
- Orthopedic and dental implants, dental prostheses
- Vitamin B12 supplements

Cobalt is also used as pigments in light brown hair dyes and makeup. It is sometimes used in blue tattoos and may be found in solid soaps.

## HOW CAN YOU AVOID COBALT?

- Only use products that do not list cobalt or related chemicals on the label, ingredient list or Material Safety Data Sheet (MSDS). If no information is available, contact the product manufacturer.
- Because cobalt and nickel can be found in many of the same metal products, allergies to both metals can develop. To prevent this, consider wearing jewelry made of sterling silver or other precious metals, rather than costume jewelry. Coat or cover the handles of frequently handled metal objects likely to contain cobalt.
- Metallic items that are difficult to avoid such as keys may be coated with several layers of clear nail polish or polyurethane lacquer. Larger objects can be covered with plastic, for example, the tools used by hairdressers and textile workers. If possible, select scissors and tools with handles of plastic, wood, or high-quality stainless steel.

- Reactions to metal instruments used by dentists and physicians are unlikely because skin contact is too brief. Reactions to metal dental appliances and orthopedic implants are rare.
- At work, avoid exposure to metallic dust and cobalt etching; metal salts for electroplating; wet cement and wet alkaline clay containing cobalt, paints, lacquers, varnishes, printing inks; and animal feed enriched with cobalt salts. If possible, avoid wet work since moisture increases the penetration of cobalt into the skin.
- Tell your physician, pharmacist, dentist, veterinarian, beautician and hairdresser that you are allergic to cobalt. Ask for products that do not contain cobalt or related substances.
- If you must contact products that contain cobalt, wear protective gloves. Heavy-duty gloves made of natural or synthetic rubber or vinyl can provide sufficient protection when working with liquids or wet cement and clay. Fabric or leather gloves can protect your hands from cobalt while working with dry metal, ceramics, or cement products.
- If you think that you contact cobalt at work, ask your employer for MSDS or manufacturer information on the product(s). Talk to your employer about using a different product or about wearing protective gloves and clothing.
- Jewelry and other metal objects can easily be tested for the presence of cobalt using a spot test called Reveal & Conceal Cobalt Spot Test available on [myskinallergy.com](http://myskinallergy.com)

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

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

- Cobalt or cobalt dust and fume; cobalt metal and metal powder
- Cobalt-related substances that you may also react to:
  - Nickel
  - Chromate

### Synonyms for cobalt:

- Cobalt blue
- Cobaltous chloride
- Cobalt dichloride
- Hexahydrate
- Cobalt chloride
- Cobaltous chloride hexahydrate
- Cobalt (II) chloride hexahydrate

## WHAT ARE SOME PRODUCTS THAT MAY CONTAIN COBALT?\*

- Metal costume jewelry, piercings and hair ornaments
- Cobalt-based pigments in paints, enamels, inks and glazes
- Metal fasteners including buttons, zippers, snaps, hooks, rivets, buckles, pins
- Metal tools, equipment, utensils and keys

## WHAT PRODUCTS MAY NOT CONTAIN COBALT?\*

- Stainless steel, plastic, gold (18k) or silver jewelry or decorative items
- Stainless steel tools and utensils or those with plastic-coated handles
- Titanium or stainless steel orthodontic materials and ceramic brackets
- Organic nonmetallic pigments for paints, enamels, inks, and glazes

\*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 **cobalt dichloride** 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.