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## Rosin (colophony) allergy

### What is rosin and where is it found?

Rosin, also known as colophony, is the sap or sticky substance that comes from pine and spruce trees. Its "stickiness" lends itself to being used in a wide range of products. The table below shows only some of the many products that contain rosin we may come into contact with either at home or at work.

Home/recreational sources	Work sources
<ul style="list-style-type: none"> <li>• Cosmetics (e.g. mascaras, lipsticks, eyeshadows, concealer creams, nail varnish)</li> <li>• Adhesives (e.g. sticking plasters and tapes, glues)</li> <li>• Medicines (e.g. wart removers, cold sore creams, ostomy products, nappy creams, haemorrhoid creams, sprays)</li> <li>• Toiletries (e.g.. transparent soaps, <a href="#">hair removing wax</a>, dental floss, <a href="#">sunscreens</a>, blister creams and first-aid ointments)</li> <li>• Household items (e.g. grease removers for clothes, shoe wax, polish for floors, cars and furniture, laundry soaps, fly strips)</li> <li>• Recreational (e.g. sport racket handles, athletic grip aids, golf club grips, bows for stringed instruments, fireworks, ski wax)</li> <li>• Chewing gum</li> <li>• Firewood and pine trees in the garden</li> <li>• Paper products: one of the largest single uses of colophony is in the manufacture of paper and paperboard</li> </ul>	<ul style="list-style-type: none"> <li>• Paint, varnishes, lacquers, sealants</li> <li>• Cements, putties</li> <li>• Linoleum, floor coverings and tiles</li> <li>• Printing inks</li> <li>• Sawdust and resin from pine and spruce</li> <li>• Asphalt products</li> <li>• Soldering products</li> <li>• Corrosion inhibitors</li> <li>• Grease and lubricant thickener</li> <li>• Topical medications in dentistry</li> <li>• Veterinary medications</li> <li>• Waterproofing agents</li> <li>• Machine belts in industry</li> </ul>

### What are the reactions to rosin allergy?

Reactions to contact with rosin in an allergic individual include acute [allergic contact dermatitis](#) and asthma. In allergic contact dermatitis the dermatitis tends to occur 1–3 days after contact with rosin, although occasionally reactions can appear within 24 hours or even more than a week after exposure. The dermatitis tends to be confined to the site of contact with rosin (e.g. hands and forearms after carrying pine wood, although the face may also be involved). Initially the skin becomes red and inflamed, and is generally itchy. As the reaction progresses it may blister and become even more intensely itchy. If exposure is continued, the dermatitis may eventually become chronic with thickened, lichenified skin.



Contact dermatitis  
from adhesive plaster



Reaction to  
ankle strapping



Facial rash  
from rosin in makeup

## Am I allergic to rosin?

Rosin allergy is diagnosed from the clinical history and by performing special allergy tests, i.e. [patch tests](#).

If you want to self-test a product for rosin, you can test a small area of your skin using the repeat open application test (ROAT). Many chemicals are, however, very irritant, so great care must be taken. Discuss this with your dermatologist first. Apply a very small amount of the product in question to a small area of skin such as the bend of your arm twice daily for seven days. If, after applying the product for 7 days consecutively, there has been no reaction, it is unlikely you are allergic to the product. However, you may still develop an irritant or intolerance reaction to the product.

## Treatment of rosin allergy

Avoidance is the only long term treatment of allergy. There is no mechanism for de-sensitising to rosin. Once the dermatitis appears on the skin, treatment is as for any acute [dermatitis/eczema](#), i.e. [topical corticosteroids](#), [emollients](#), treatment of any secondary bacterial infection (*Staphylococcus aureus*), etc.

## What should I do to avoid rosin allergy?

The best way to avoid colophony allergy is by being aware of products that contain rosin. Look for the list of ingredients on the product labels or packaging of all substances you come into contact with, not just the ones you think you might be reacting to. If necessary contact the manufacturer of the product or cosmetic. Avoid products that do not list all the ingredients.

If you must use products that contain rosin, wear gloves or other protective clothing to avoid contact with your skin. Your dermatologist may have further specific advice, particularly if you are highly sensitive to rosin.

## Alternative names for rosin

Rosin is also known by several other names. These include:

- Colophony
- Resin terebinthinae
- Tall oil
- Abietic acid
- Methyl abietate alcohol
- Abietic alcohol
- Abietyl alcohol

Avoid all of these. At work, request a material safety data sheet to help identify alternatives that are safe hence avoiding contact with material containing rosin.

## Further information

**CAS number:** 1065–31–2

### Cross reactions:

- Balsam of Peru
- Dihydroabietyl alcohol
- Wood tars
- Pine resin
- Spruce resin
- Oil of turpentine

### Appearance:

Yellow resin. 90% resin acids (mostly abietic acid), 10% neutral matter

### Sensitizer:

Main sensitisers are abietic acid and abitol.

### Patch Test:

20% in petrolatum

### Sources of Exposure to Rosin

- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• Adhesive products</li> <li>• Adhesive tapes and plasters (salicylic acid plasters, opsite)</li> <li>• Brewery pitch</li> <li>• Caulking compounds</li> <li>• Cements (lens coating, linoleum, rubber, shoe, thermoplastic tiles)</li> <li>• Chewing gum</li> <li>• Modeling clay</li> <li>• Cleaners and lubricants (clothing, leather, office machines)</li> <li>• Clothing (prewashes, tackifier)</li> <li>• Cosmetics (brilliantine, depilatory waxes, eyeshadow, hair pomades and sprays, nail varnish, mascara, rouge)</li> <li>• Dentistry (antiseptics in root canal treatment, dental cements, impression pastes, liquids and cavity varnishes)</li> <li>• Dancing (athletic grips, floors of studios, dancing shoes)</li> <li>• Fillers (putty and wood)</li> <li>• Fireworks</li> </ul> | <ul style="list-style-type: none"> <li>• Insulation tape (electrical and thermal insulating tape)</li> <li>• Inks (ceramic, marking pens, printing)</li> <li>• Jointing tape</li> <li>• Linoleum (adhesive bedding and cements, floor covering, tiles)</li> <li>• Match tips</li> <li>• Medicaments (disinfectants, insecticides, ointments, plasters, preservatives, proprietary medicaments)</li> <li>• Newspaper</li> <li>• Oils (core oil, cutting oil, tall oil)</li> <li>• Ostomy appliances</li> <li>• Paper (glossy paper, photographic paper, plastics, price labels, stickers)</li> <li>• Pens (felt tip, water-fast artist pens)</li> <li>• Plastics (surface coating)</li> <li>• Polishes (car, coffee beans,</li> </ul> | <ul style="list-style-type: none"> <li>• Soldering fluxes, soldering agents</li> <li>• Solvents</li> <li>• Stains (furniture, wood)</li> <li>• Surface coatings (beer casks, rustproof coating, coatings on price labels, cans, paper)</li> <li>• Tackifier (athletic/sport grips, sticky fly paper, stringed instruments, dancer's shoes, machine belts, postage stamps, etc)</li> <li>• Tapes (industrial, medical)</li> <li>• Varnishes</li> <li>• Veterinary products (see medicaments, dog repellants, diuretic)</li> <li>• Waterproofing (cardboard, oil cloth, walls)</li> <li>• Waxes (car, grafting, floor, furniture, physiotherapy, sealing, shoemakers, ski, tree, etc)</li> <li>• Rubber (emulsifier, reclaiming agent, tire-compounding)</li> <li>• Sawdust (pine and spruce)</li> <li>• Sealants (dental root canal, wood swellers)</li> </ul> |
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- Flexible collodium
- Glues, mastics and sealants
- Grease and lubricant thickeners; axle grease

- floor, furniture, metal, shoe)
- Polyethylene
- Postage stamps (adhesive)
- Printing (ink, paper, photographs, etc)
- Resins

- Shoes (adhesive)
- Soaps

### Related information

#### References:

- Book: [Fisher's Contact Dermatitis. Ed Rietschel RL, Fowler JF. Lippincott Williams & Wilkins 2001](#)

#### On DermNet NZ:

- [Dermatitis](#)
- [Allergic contact dermatitis](#)
- [Patch testing](#)

#### Other websites:

#### Books:

See the [DermNet NZ bookstore](#)

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DermNet does not provide an on-line consultation service.

If you have any concerns with your skin or its treatment, see a [dermatologist](#) for advice.

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