1.1 Introduction

This chapter has been written in order to familiarize the reader with the chemical structure of chemicals implicated in contact dermatitis, mainly as haptens responsible for allergic contact dermatitis. For each molecule, the principal name is used for classification. We have also listed the most important synonym(s), the Chemical Abstract Service (CAS) Registry Number that characterizes the substance, and its chemical structure. The reader will find one or more relevant literature references. As it was not possible to be exhaustive, some allergens have been omitted since they were obsolete, extremely rarely implicated in contact dermatitis, their case reports were too imprecise, or they are extensively treated in other chapters of the textbook. From a practical chemical point of view, acrylates, cyanoacrylates and (meth)acrylates, cephalosporins, and parabens have been grouped together.

1. Abietic acid

CAS Registry Number [514–10–3]
Abietic acid is probably the major allergen of colophony, along with dehydroabietic acid, by way of oxidation products. Its detection in a material indicates that allergenic components of colophony are present.

Suggested Reading

2. Acetaldehyde

Acetic Aldehyde, Ethanal, Ethylic Aldehyde

CAS Registry Number [75–07–0]

![Acetaldehyde Structure]

Acetaldehyde, as its metabolite, is responsible for many of the effects of ethanol, such as hepatic or neurological toxicity. A case of contact allergy was reported in the textile industry, where dimethoxane was used as a biocide agent in textiles and its degradation led to acetaldehyde.

Suggested Reading

3. Acrylamide

CAS Registry Number [79–06–1]

![Acrylamide Structure]