

Criteria for chemical-technical products





Background

The majority of all questions about products from members and the public to the Swedish Asthma and Allergy Association concern chemical-technical issues. There is a large consumer demand these days for allergy-labeled hygiene and cleaning products. This document, the Swedish Asthma and Allergy Association's Criteria for chemical-technical products, provides important basic data for the Review Board in assessing risk and making recommendations concerning current products. Simultaneously, the criteria are an appeal to manufacturers to develop products that meet the needs of sensitive and hypersensitive people.

Summary

Since 1976, the Swedish Asthma and Allergy Association annually assesses a number of chemical-technical products, such as laundry detergents and rinsing agents, soaps, shampoos, dish detergents, ointments and creams. **One prerequisite for product approval is that they must be free from allergens, perfumes and irritants to such an extent that there are no known reports of medical cases of hypersensitivity.** The Association's recommendations are guidelines and an aid for consumers in their search for products with good allergy properties. Naturally, there is no such thing as a complete guarantee. A product may cause reactions in certain individuals despite a careful review. People react differently, and some are so sensitive that they can react despite advanced product design.

The Review Board's work involves the so-called Cautionary Principle – as does section 6 of the Swedish Environmental Code. In cases of doubt about the product's contents and properties, the board refrains from recommending the product even though it may very well be an excellent product. The Review Board's role is to evaluate and in some cases order tests and, measurements and ultimately make a professional judgement about the allergy risks. The fundamental documentary evidence in this work are formulas and product information sheets. The final ruling and recommendation is based on research results, existing tests, measurements, formulas, product information sheets, science and proven experience. The final decision on recommendations' is taken by the Association's Board.

The three criteria

The three most important questions for the Review Board to take into consideration are:



1. The product should be perfume free. Why?

There are a number of products that are perfumed, and this is not limited to skin care or hygiene products. Many people are sensitive to scents and react to perfumed products, chemicals, flower scents, cigarette smoke, mold, and other airborne contaminants. In one representative Swedish municipality, one third of the inhabitants replied that they were more or less bothered by various odours, which in milder cases might lead to temporary headache or nausea. Of those sensitive to odours, just over half had such a pronounced hypersensitivity that it could be classified as a functional impairment, due to the social and behavioural consequences¹. This group must avoid such things as exposure to perfumes in order to avoid further complaints such as cough, snuffles, irritation in the nose and eyes and, occasionally, asthma-like breathing problems. One common consequence may be that visits to the theatre, the cinema, public premises, buses, trams etc. are avoided². A pronounced sensitivity to odours or scents can be objectively verified in about six percent of the population³. Perfume may also cause contact allergy and allergic contact eczema. **Therefore:** A product should be perfume free.

2. The product must be free of allergens, allergenic substances, allergen [sic]. Why?

There are two types of allergies at issue:

A. In the first case (Type 1), the allergen may result in asthma, hay fever, eczema, nettle rash, food allergy and in the worst case life-threatening anaphylactic reactions. The trigger of this type of allergy is generally proteins of the animal and plant kingdoms, such as flakes of skin, saliva, urine, faeces, insect toxins (animal kingdom) and pollen, mold, plant sap (plant kingdom) and foodstuffs such as nuts, beans, cereals, eggs, fish and meat.

When products are launched as “from natural sources” this sounds a warning for the Review Board's work. Enzymes in dish and laundry detergents are potent allergens and may become sensitizing, if they become airborne. The enzyme granulate must be well encapsulated.

B. The second case (Type IV) concerns “contact allergens,” substances which provoke allergic contact eczema when in direct contact with skin. The contact allergens are low molecular, i.e. much smaller than proteins. In chemical-technical products, they often are used as preservatives and perfumes. There are approx. 4,000 chemically manufactured or naturally occurring substances described as contact allergens in circulation. The most common contact allergens found in patch tests are for the metals nickel and cobalt, preservatives, perfumes and chromium compounds. Common allergens in our environment are preservatives, perfumes, nickel and rubber compounds. In order to minimize exposure for persons who currently have allergies or



persons with specially sensitive skin, products intended to come into contact with the skin should therefore not contain this type of substances or biocides. One exception, however, are preservatives that are sometimes required in water-based products. Thus, water-based products must use preservatives with low levels of allergens if possible and if there is a risk of skin contact. Chemical-technical products are evaluated on the basis of their intended area of use and formulation and may not contain allergenic substances in such amounts or of such type as to engender a risk of sensitization or provoke reactions from people who already have allergies. **Therefore:** A product must be free from allergenic substances: inhalation, food or contact allergens.

3. The product must be free of irritants. Why?

Generally it should be mentioned that there is a large number of substances that act to irritate our skin. The most common are water and detergent. Concerning chemical-technical products, these products contain active substances specific for the product as well as additives such as preservatives, pH regulators, etc. These products may have a negative effect on skin and mucous membranes by being dehydrating, irritating and/or allergenic. Extreme pH values are irritating and should therefore range from pH 5–8 in solutions. Individuals may come into daily contact with irritating substances. Everyone exposed to irritating substances risks contracting irritation eczema on the skin. Persons with sensitive skin are more vulnerable and therefore have a special reason to avoid exposure to these type of products. Therefore, all packaging for laundry detergent with recommendation from the Asthma and Allergy Association must contain information to the consumer about avoiding skin contact with the product, in particular using gloves. In addition to being irritating to the skin these named substances may also cause irritation reactions in the upper and lower airways as well as cause snuffles, irritation coughing or asthma. The most common exposure comes from chemicals in gaseous form. Products containing potentially irritating substances must not be designed for dispersal as an aerosol. Persons with sensitive airways are more vulnerable and therefore have a special reason to avoid exposure to this type of products. Irritating substances may also cause headache and a feeling of a "heavy" head. **Therefore:** A product must not contain irritating substances in such amounts that they have been shown to cause or contribute to exacerbations in people with allergies and other hypersensitivity.



Our evaluation methods

The Review Board consists of a specialist in medicine, chemistry and technology. Each application submitted to the Swedish Asthma and Allergy Association is assessed on the basis of the cautionary principle before it may be recommended – as well as in accordance with section 6 of the Environmental Code. The safety assessments are largely based on the documentation that the producers themselves make available. The final recommendation is based on research results, tests, measurements, formulas, product information sheets, science and proven experience. The Review Board does not conduct its own tests and relies on the company's accredited laboratories as well as on self-regulatory controls.

How to apply

Relevant information and the application forms are obtained digitally after contacting Marianne Jarl Marianne.jarl@astmaoallergiforbundet.se



Usage of the logo

Below logo ought to be used as the emblem of the recommended product and in marketing purposes. To obtain the rights to use the Asthma and Allergy Association logo in marketing and on the product, a contract between the parts must be established.





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