

COUNCIL OF EUROPE

COMMITTEE OF MINISTERS

Resolution ResAP(2004)3 on ion exchange and adsorbent resins used in the processing of foodstuffs

*(Adopted by the Committee of Ministers on 1 December 2004
at the 907th meeting of the Ministers' Deputies)
(replacing Resolution AP (97) 1)*

The Committee of Ministers, in its composition restricted to the Representatives of the States members of the Partial Agreement in the Social and Public Health Field,¹

Recalling Resolution No. R (59) 23 of 16 November 1959 concerning the extension of the activities of the Council of Europe in the social and cultural fields;

Having regard to Resolution No. R (96) 35 of 2 October 1996, whereby it revised the structures of the Partial Agreement and resolved to continue, on the basis of revised rules replacing those set out in Resolution No. R (59) 23, the activities hitherto carried out and developed by virtue of that resolution; these being aimed in particular at:

- a. raising the level of health protection of consumers in its widest application: including constant contribution to harmonising – in the field of products having a direct or indirect impact on the human food chain as well as in the field of pesticides, pharmaceuticals and cosmetics – legislation, regulations and practices governing, on the one hand, quality, efficiency and safety controls for products and, on the other hand, the safe use of toxic or noxious products;
- b. integrating people with disabilities into the community: defining – and contributing to its implementation at European level – a model of coherent policy for people with disabilities, which takes account simultaneously of the principles of full citizenship and independent living; contributing to the elimination of barriers to integration, whatever their nature, whether psychological, educational, family-related, cultural, social, professional, financial or architectural;

Having regard to the action carried out for several years for the purposes of harmonising legislation in the public health field and, in particular, with regard to materials and articles intended to come into contact with foodstuffs;

Considering that ion exchange and adsorbent resins used in the processing of foodstuffs may, by reason of the migration of their components to the foodstuffs, pose in certain conditions, a risk to human health;

Taking the view that each member state, faced with the need to introduce regulations governing this matter, would find it beneficial to harmonise such regulations at European level,

Recommends to the governments of the States members of the Partial Agreement in the Social and Public Health Field to take into account in their national laws and regulations on ion exchange and adsorbent resins used in the processing of foodstuffs the principles set out hereafter.

¹ Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1. Definition

Ion exchange and adsorbent resins, hereafter called resins, are synthetic organic macromolecular compounds which can be used in the processing of foodstuffs to bring about exchange of ions or adsorption of foodstuffs constituents. They do not include, however, cellulosic ion exchangers.

2. Specifications

Resins used in processing of foodstuffs should meet the following requirements:

- 2.1. they should not transfer their constituents to foodstuffs in quantities which could endanger human health or bring about an unacceptable change in the composition of the foodstuffs or deterioration in the organoleptic characteristics thereof;
- 2.2. they should be manufactured in accordance with a certified Quality Assurance System (e.g. ISO 9002 or CEN 29-004) and should use the substances listed and under the conditions specified in “*Technical document No. 1 – List of substances to be used in the manufacture of ion exchange and adsorbent resins used in the processing of foodstuffs*” and according to the conditions specified;
- 2.3. the listing of a substance in a particular category (monomers, chemical modifiers or polymerisation aids) does not preclude its use at some other stage of the manufacturing process;
- 2.4. the user should be instructed that mechanical attrition of the resin is possible, and steps should be taken to filter the treated liquor to ensure that any fine particles are removed;
- 2.5. they should be made ready for use in accordance with the instructions of the manufacturer;
- 2.6. regeneration of resins should be performed in such a manner that they are not contaminated with substances detrimental to health;
- 2.7. resins should be subjected to AFNOR test T 90-601.² All five bed-volumes prepared should be tested for total organic carbon (TOC) in order to demonstrate a decreasing release of organic carbon from the first through to the last bed-volume. Total organic carbon in the fifth bed-volume should not exceed 1mg/l;
- 2.8. where appropriate, migration of specific resin constituents should be determined as well, using water, 3% (w/v) acetic acid or 15% (v/v) ethanol as the food simulant, whichever is relevant. Migration of specific resin constituents to the fifth bed-volume, obtained as in the AFNOR test, should not exceed the limits set out in “*Technical document No. 1 – List of substances to be used in the manufacture of ion exchange and adsorbent resins used in the processing of foodstuffs*”. Specific migration should be determined by a method of analysis validated at the specific migration limit level;
- 2.9. verification of compliance with specific migration limits is not compulsory if it can be demonstrated, for example by calculation, that by assuming complete migration of the residual quantity of a substance, the specific limit of migration of that substance will not be exceeded;

¹ Association française de normalisation (AFNOR): T 90-601: *Traitement des eaux – Résines échangeuses d'ions – Essai de relargage du carbone organique total, décembre 1988.*
Water treatment. Ion exchange resins. Release test of total organic carbon. December 1988.

2.10. where appropriate, residual quantity of specific resin constituents should be determined in the resin. The residual quantity should not exceed the limits set out in “*Technical document No. 1 – List of substances to be used in the manufacture of ion exchange and adsorbent resins used in the processing of foodstuffs*”.