

INTRODUCTION-EHS

Plastics used in the manufacture of items in short contact with food, or packaging materials in long-term contact with food must meet a range of requirements related to health hazards. These possible health hazards can be due to food contamination caused by plastic components. Because there is currently no EU directive governing the requirements for colorants used in food exposure applications, national regulations are implemented in various countries. The requirements for colorants in food contact materials are mainly derived from the EU AP(89)1 resolution. AP(89)1 is a resolution on the use of colorants in plastic materials which was adopted by the Council of Europe Committee of Ministers at its 428th meeting of Ministers on September 13, 1989. To a large extent, the resolution focuses on the migration of colorants, which is of great significance to dyes, organic and inorganic pigments, and provides corresponding limitations on the dissolution values of related heavy metals, aromatic amines and polychlorobiphenyls in pigments.

The content of heavy metal and nonmetal dissolved in 0.1 m hydrochloric acid, that is, the amount of pigment dissolved in 0.1 mol/L hydrochloric acid must not exceed:

Antimony (Sb) : 500 ppm	Chromium (Cr VI) : 1000 ppm	Arsenic (As) : 100 ppm	Lead (Pb) : 100 ppm
Barium (Ba) : 100 ppm	Mercury (Hg) : 50 ppm	Cadmium (Cd) : 100 ppm	Selenium (Se) : 100 ppm

The content of PCBs must not exceed 25 ppm, in the form of dichlorobenzene.

Dissolved in 1 mol/L hydrochloric acid, the content of unsulfonated aromatic primary amine in aniline must not exceed 500 ppm.

The contents of benzidine, β -naphthylamine and 4-aminobiphenyl (single or total) must not be greater than 10 ppm.

The sulfonated aromatic amine content shall not exceed 500 ppm (aniline sulphonic acid).

AP(89)1 also has related requirements for carbon black and inorganic cadmium pigments.

Trust Chem attaches great importance to this resolution and sends samples for inspection every quarter, spending \$2 million in testing fees to date.

