

## Printing Inks and Related Products for the Manufacture of Toys

### 1. European Standard EN 71 "Safety of Toys"

**EN 71 - Part 3** "Migration of Certain Elements" sets limits for the extractable content of several elements: antimony, arsenic, barium, cadmium, chromium(VI), lead, mercury, and selenium from toys.

As stated in the EuPIA "Exclusion List for Printing Inks and Related Products", pigment colorants based on, and compounds of, the above mentioned elements are not used in the manufacture of printing inks, with the exception of barium lake red pigments. As suppliers of printing inks and related products, we take care not to use barium lake red pigments with high extractable barium content.

From the previous history of the supply of printing inks and related products for the decoration and printing of toys, and a knowledge of the raw materials used in the manufacture and the manufacturing processes used, we expect that all printing inks, varnishes and related products supplied by European member companies of the **huber**group will enable the toy to comply with the extractability requirements of EN 71 - Part 3. This statement is based on the printing ink being used under normal industrial conditions.

As suppliers of printing inks and related products, we cannot take responsibility for the handling and use of their products outside their own operations. As EN 71 - Part 3 relates to the properties of the finished toy, not the ink as supplied to the printer, it is the responsibility of the toy manufacturer to demonstrate the compliance of the finished toy.

Further parts of EN 71 (Parts 9 - 11), which deal with the risks from organic chemicals, have not yet been adopted by the European Commission.

### 2. The new EU Toys Safety Directive 2009/48/EC

On 20 July 2009, the new Toys Safety Directive 2009/48/EC entered into force. Member States are now in the process of modifying national laws to comply with the new directive, and to apply those measures with effect from 20 July 2011. Toys meeting the Essential Requirements set out in Directive 88/378/EEC can continue to be placed on the market until 20 July 2013.

The revised directive focuses on enhanced safety requirements for toys, essentially with regard to the chemicals present. Substances classified as carcinogenic, mutagenic or toxic for reproduction (CMR) of category 1A, 1B or 2 under Regulation (EC) No 1272/2008 shall not be used. The use of certain allergenic fragrances is restricted, and new limits for the migration of 19 metallic elements from toys have been set. Compared to the most recent version of EN 71 - Part 3, this is an increase in the number of elements to be tested; in addition some existing migration limits have been lowered. The European Commission has given the mandate to CEN to adapt EN 71 to the new requirements by 2013.

The migration limits set by the new directive apply unless the toy or component clearly excludes any hazard due to sucking, licking, swallowing, or prolonged contact with skin when it is used as intended or in a foreseeable way.

Many types of printing inks and related products are used in the manufacture of toys, e.g. for printing of children's books or for toy decoration, as well as for the packaging of toys.

European member companies of the **huber**group do not use the elements, or compounds of, antimony, arsenic, cadmium, chromium(VI), lead, mercury, and selenium, nor substances classified as being toxic, very toxic, carcinogenic, mutagenic, or toxic for reproduction, in the manufacture of inks and related products. All these are excluded from use in printing inks by the EuPIA Exclusion List.

Apart from these excluded materials, other elements now included in the Directive may be present in inks, notably copper, zinc, or aluminium (which form the basis for certain blue, green, and metallic inks), or cobalt and manganese (which are present as driers in oxidative drying sheetfed offset inks). Therefore, in the absence of a revised standard which defines rules for adequate testing, general declarations on the suitability of inks and related products containing any of the revised directive substances, which are not covered by the current version of EN71-3 (i.e. the "newly added" substances mentioned above), cannot be made at this point in time.

European member companies of the **huber**group will give specific information - on request - to enable the manufacturer of the book, toy or packaging to carry out a risk assessment to evaluate compliance with the Toy Safety Directive. If this risk assessment shows that the extractability limits from toys might be exceeded, assuming a worst-case scenario, suitable testing has to be done by the manufacturer of the toys.

November 2010

Contact: Dr. Sebastian Gierisch  
Product Safety **huber**group Europe  
Tel. +49 (0)89 9003-444  
E-mail: [sebastian.gierisch@mhm.de](mailto:sebastian.gierisch@mhm.de)