

Customer information

Printing inks and related products for the manufacture of toys

Regulations and standards applying in non EU member countries

1. Global standards on bioavailable toxic heavy metals and metallic elements

Applicable to printed layers are the current editions of the following industry **standards**:

ISO 8124-3, overarching international standard

ASTM F 963, USA, which provides a presumption of conformity with the requirements of the **Federal Hazardous Substances Act**, under which certain provisions for the management or for restrictions of use of substances that are hazardous according to **16 CFR 1500.3** are laid down for toys

These standards are only applicable for toys which can be sucked, licked or swallowed:

- All intended food/oral contact toys, cosmetic toys and writing instruments categorized as toys:
- Toys intended for children up to six years of age, i.e. all accessible parts and components where there is a probability that those parts or components may come into contact with the mouth.

They quote globally harmonized limit values for the heavy metals lead, cadmium, mercury, chromium and antimony as well as for the metallic elements arsenic, selenium and - however with a limit being an order of magnitude higher - barium.

The limit values of the global standards are valid not for the inks as supplied but are applicable to coatings or layers which are removable from the toy by scraping, and they refer not to the total content of the mentioned metals, but to the content which is **soluble** in 0.07 n hydrochloric acid.

In China, the national standard safety of toys **GB 6675** established same requirements in term of migration of these heavy metal elements from the coatings or inks layers scrapped from toy materials and parts (except for modeling clay and finger paint). The standard also requires that the sum of concentration levels of dibutyl phthalate (DBP), butyl benzyl phthalate (BBP) and bis-(2-ethylhexyl) phthalate (DEHP) in all accessible toy materials and parts does not exceed 1000 ppm. For those materials that can be placed in the mouth, it requires additionally the sum of concentration levels of di-n-octyl phthalate (DNOP), diisononyl phthalate (DINP) and diisodecyl phthalate (DIDP) must not exceed 1000 ppm.

Siegwerk confirms herewith that, generally, for the manufacture of all products, thus as well for all products supplied to you, no raw materials containing antimony, arsenic, cadmium, hexavalent chromium, lead, mercury, and selenium are intentionally added. With regard to phthalates, please refer



to Siegwirk's respective declaration of non-use, which equivalently demonstrates a comfortable safety margin.

With regard to the above toxic **heavy metals**, in principle, it is well known that pigments could contain heavy metal traces. Therefore, Siegwirk has conducted and documented - under the supervision of its Global PSR department - comprehensive random sampling, focusing on all manufacturing processes and representative Siegwirk production sites worldwide.

Therefore, all products supplied by Siegwirk are fully in line with the state-of-the-art of heavy metals traces control. Consequently, they are in full compliance, and/or allow to the responsible of the final toys article the full compliance with the above-mentioned toys standards¹.

2. Regulations on toxic heavy metals and other substances of concern

In the USA, the **Consumer Product Safety Improvement Act 2008 (CPSIA)** bans children products containing lead in concentrations higher than 100 ppm. It is important to note that printing inks are not applicable to the lead paint limit. The overarching regulation 16 CFR 1303 (Ban of Lead-containing paint and certain consumer products bearing lead-containing paint) specifically excludes printing inks from the definition of "paint and other similar surface coatings" (16 CFR 1303.2(b)(1)).

- **State of Washington:**

The **State of Washington**, USA, in the **Children's Safe Products Act (CSPA)**, Chapter 70.240 RCW) limits lead, cadmium and phthalates in children's products or product components to 90 ppm, 40 ppm and 1000 ppm, respectively.

With regard to the CPSIA and the CSPA, Siegwirk's statements above on the control of the total content of hexavalent chromium, cadmium, lead and mercury assure customers to have a comfortable safety margin. In particular, it is important to emphasize that Siegwirk has been and will continue to supply products that allow compliance with the US TPCP (Toxics in Packaging Clearinghouse) Heavy Metals requirements which state that the total content of hexavalent chromium, cadmium, lead and mercury be less than 100 ppm.

The State of Washington authority has also recently issued, under the CSPA, a **Reporting List of Chemicals of High Concern to Children (CHCC)**, and a related reporting rule (Chapter 173-334 WAC) which provides: "Each chemical on the CHCC list that is a contaminant present in a product component must be reported at any concentration above 100 ppm. A manufacturer need not file a notice with respect to any CHCC that occurs in a product component only as a contaminant if the manufacturer had in place a manufacturing control program and exercised due diligence to minimize the presence of the contaminant in the component". Siegwirk proactively monitors and/or retrieves supplier data on impurities in raw materials, however the presence of the substance in

¹ Certain few warm-red shade inks (or blends based on warm-red shade inks) are based on or contain barium-organic pigments ("Color Indexes" concerned are Pigment Red 53:1, Pigment Red 48:1, Pigment Red 49:1). The restrictions imposed on barium are comparatively high (1000 mg acid-extractable barium per kg toy material). However, for complete security, and in the event you intend to use warm red shade ink to print large surface shares of your print article intended for toys, we recommend to check back with your Siegwirk customer contact person. Please verify if this particular warm red is based on one of the named "Color Indexes" with barium. If this is the case, consider to avoid warm-red or to use different warm-red based on other "Color Indexes".



the product coming from raw material impurities, the process or as adventitious contaminants can't be excluded. Please liaise with your Siegwirk contact for a risk assessment on the CHCC substances.

- **State of Vermont:**

"Chemical of high concern to children" (CHCC) means a chemical listed under section 18 V.S.A. §1773 or designated by the Department as a chemical of high concern by this rule. Disclosure and reporting are required for toxic substances that are intentionally added by the manufacturer to a children's product at a level above the Practical Quantification Limit (PQL) or are present in a children's product as a contaminant at concentrations of 100 ppm or greater. This rule applies to manufacturers of children products as defined by 18 V.S.A § 1772(7). Siegwirk proactively monitors and/or retrieves supplier data on impurities in raw materials, however, the presence of the substances in the product coming from raw material impurities, the process or as adventitious contaminants can't be excluded. Please liaise with your Siegwirk contact for a risk assessment on the CHCC substances.

- **State of Maine:**

In accordance with the Maine Safer Chemicals in Children's Products Act (38 M.R.S. § 1691 et seq.), there is no reporting on the list of high concern chemicals, but only on the priority substances. No lab analysis is needed. The chemical present must be reported at the Practical Quantification Limit (PQL) level. The priority substances are defined under the chapters listed below.

Arsenic: Chapter 887
Bisphenol A: Chapter 882
Cadmium: Chapter 884
Flame Retardants: Chapter 889
Formaldehyde: Chapter 885
Mercury: Chapter 886
Nonylphenol and Nonylphenol Ethoxylates: Chapter 883
PFOS or its Salts: Chapter 890
Phthalates: Chapter 888

- **State of New York**

Title IX of Article 37 of the Environmental Conservation Law (ECL), Toxic Chemicals in Children's Products (TCCP), addresses chemicals in consumer products primarily intended for children aged twelve and under. ECL 37-0905 requires DEC to promulgate a list of Chemicals of Concern (CoC) and authorizes DEC to add to the list of High Priority Chemicals (HPC). Once promulgated in a rulemaking, these lists will set forth the chemicals that must be disclosed if present in children's products sold or distributed in New York State. *The law also prohibits the sale of children's products containing intentionally added benzene, asbestos, or tris(1,3-dichloro-2-propyl) phosphate.* The sales prohibition went into effect January 1, 2023. DEC is in the process of developing a rule to implement portions of the law. The rule is expected to address the specific product categories that are covered, what chemicals and supporting information must be disclosed, thresholds for reporting, provide details on how to obtain a waiver from reporting or the sales prohibition, and the fees associated with reporting and applying for a waiver.



- **State of Oregon**

This law requires manufacturers of children's products sold in Oregon to report products that contain one or more high priority chemicals of concern for children's health (HPCCCH), and ultimately remove these chemicals or seek a waiver. The link ([Oregon Health Authority : High Priority Chemicals of Concern for Children's Health : Toxic Substances : State of Oregon](#)) lists Oregon's 73 high priority chemicals of concern for children's health, as required by the Toxic-Free Kids Act passed in 2015.

Per ORS 431A.258, manufacturers must provide biennial notice to OHA of children's products sold in Oregon that are covered by the Oregon Toxic-Free Kids Act and contain HPCCCH in the final product that is at or above de minimis. De minimis concentrations for "intentionally added" HPCCCH are those at or above practical quantification limits (PQL). The PQLs for HPCCCHs vary and are found in OAR 333-016-2035 Exhibit A. De minimis for a HPCCCH as a contaminant is a concentration of 100 parts per million.

- **State of Minnesota**

The Toxic Free Kids Act legislation requires the Minnesota Department of Health (MDH) to create two lists of chemicals: one list called "Chemicals of High Concern" and one called "Priority Chemicals." The Toxic Free Kids Program published the fourth update of the Chemicals of High Concern list in July, 2022. The 2022 Minnesota Chemicals of High Concern List includes but not limited to Formaldehyde, Methyl chloride, Benzene, Toluene, etc. The link below shows the entire list of Chemicals of High Concern for Minnesota. (<https://www.health.state.mn.us/communities/environment/childenvhealth/tfka/highconcern.html#list>)

Siegwerk confirms herewith to customers that for the manufacture of all products worldwide none of the priority substances are intentionally added. Nevertheless, in case non-NPH (Nutrition, Pharma, Hygiene) products are intended to be used for such applications, we advise customers to liaise with their Siegwark contact for a risk assessment.

The **Canada Toys Regulations** lay down (Section 23): "The surface coating material that is applied to a toy must not contain any of the following substances: (a) more than 90 mg/kg of total lead; (b) a compound of antimony, arsenic, cadmium, selenium or barium introduced as such if more than 0.1% of the compound dissolves in 5% hydrochloric acid after being stirred for 10 minutes at 20°C (68°F); or (c) a compound of mercury introduced as such".

As previously stated, Siegwark confirms that, generally, for the manufacture of all products, no raw materials containing lead, antimony, arsenic, cadmium, selenium and mercury are used.

The information in this document reflects Siegwark's policy and commitments. This statement is valid without signature.