

Appendix A

Products to Avoid

Overview

Below is a list of products to be avoided in archival, special collections, and museum collections storage areas and in exhibit cases housing original and irreplaceable collections. It is also recommended that these materials be excluded from-archives and museum processing rooms, holding areas, and exhibit galleries.

Materials listed as prohibited in this section are often unavoidable in some pre-manufactured construction components and assemblies, however, every attempt should be made to use safer materials as they are available.

Note that some products that are harmful to collections if present in sufficient quantities, such as would occur in a display case or in a small, poorly ventilated room, can be used judiciously in large rooms if there is sufficient lag time between construction and collection installation to allow the HVAC system to clear cure-related emissions. However, none of these products should be used in direct contact with collection items.

Language such as the following can be used when planning archival and special collections facilities.

Products listed in this section can be unavoidable in some pre-manufactured construction components and assemblies. However, every attempt should be made by the Contractor to use safer materials if they are available. The Contractor is required to submit Safety Data Sheets and/or Technical Data Sheets for all pre-manufactured construction components and assemblies that include materials noted on the Prohibited Products List prior to construction for the Architect's approval.

List of Products to Avoid

Avoid for Human Health Reasons:

- Amine-based products.
- Asbestos.
- Biocides.
- Lead containing materials.
- Materials that emit formaldehydes (urea/phenol/resorcinol/formaldehyde), as might be found in interior-grade plywood, hardboard, particle board, and plastic laminates.

Avoid for Conservation/Preservation Reasons:

- Acid-curing silicone sealants and adhesives, or similar products that emit acetic acid during cure.
- In exhibit cases, most pressure-sensitive adhesives and contact cements and adhesives. Small quantities of these products are usually safe when applied to room surfaces.
- Cellulose nitrate-bearing materials, such as cellulose nitrate lacquers, varnishes, and adhesives.
- Cellulose diacetate fabrics.
- Cellulose acetate fabrics and films.
- Polyurethane products including paints, varnishes, and foams. Two-part polyurethane coatings do not off-gas and are acceptable as sealants for wood and wood products.
- Carpet.
- Insulation.
- Latex paint based on vinyl acrylic or styrene acrylic latex. Acrylic latex is generally acceptable.
- Modified alkyd paints.
- Oil-based and alkyd resin paints and varnishes, and oil-based caulks and glazing compounds.
- Sulfur-containing materials in any form that could be released as hydrogen sulfide or mercaptans. These include, but are not limited to, vulcanized rubber, animal glue, wool, cadmium sulfide pigments, and disodium phosphate fire retardant treatments.
- Flexible chlorine-containing polymers such as polyvinyl chloride (PVC). Should not be in direct contact with any materials. May be used in the building construction.
- Vinyls, including but not limited to unstable chlorine-containing polymers (i.e., polyvinyl chloride).
- In exhibit cases, products that release ammonia during cure. Outside cases, small quantities are acceptable if the products are fully cured prior to collection installation.

- In exhibit cases, products that release peroxide during cure. Outside cases, small quantities are acceptable if the products are fully cured prior to collection installation.
- Self-leveling floor compounds that contain high levels of VOCs.
- Unsealed concrete, due to its production of fine particulate, alkaline dust.
- In exhibit cases, wood or wood products that are not sealed to prevent off-gassing. Ensure that coatings are completely cured prior to installing the collection. Outside exhibit cases, small quantities are acceptable.
- All combustible furniture.
- Fluorescent lamps, mercury vapor, and metal halide lamps due to their high UV and heat output.
- Avoid products with high VOCs. For more information on low VOC specifications, see the LEED Standard <https://www.usgbc.org/credits/schools-new-construction-healthcare/v4/eq112>