

Chemical compounds and substances

Contents

This requirement document describes IKEA bans and restrictions on certain chemical compounds and substances due to national or international regulations and/or health and environmental concerns made by IKEA. The requirements in this document are basic for materials commonly used in IKEA products. Additional requirements apply for e.g. children's products, toys and food contact products. For materials and product types not covered by this document, see page 21.

The purpose of IKEA requirements concerning chemical substances in IKEA products is to:

- minimize harmful effects to customers' health and to the environment from IKEA products.
- ensure compliance of IKEA products with health and environmental regulations in all IKEA markets.

Unless otherwise stated, the requirements are valid for each separate homogeneous material in the product.

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1 General requirements for all materials

Note: The requirements in this section are valid for all materials. This includes all material categories listed in *section 0* Material-specific requirements, below as well as those materials not specifically listed.

Table 1 General requirements for all materials	
Substance	Requirements
Biocides of all kinds	Biocides are not allowed to be used without approval ¹ from IKEA.
Cadmium (Cd) and its compounds	Not allowed to be used. Contamination limit value: 40 mg cadmium/kg.
CMR substances (category 1A or 1B) and Substances of Very High Concern (SVHC)	CMR-substances and SVHC are not allowed to be used Contamination limit value: 0.10 %.
Fragrances	Fragrances, perfumes and masking agents are not allowed to be used without approval from IKEA.
Hazardous waste in material that contains any proportion of recycled material	It is not allowed to use any hazardous waste in any materials for IKEA products unless this is in accordance with permits from competent authorities for the recycling of such hazardous waste. Examples of hazardous waste not allowed (note, not complete list): <ul style="list-style-type: none"> • Waste oil • Recycled plastic from electronic products that contains brominated flame retardants, • Recycled wood chips from any kind of preservative-impregnated wood, e.g. creosote-containing railway sleepers and telephone poles, • Radioactive metal scrap
Lead (Pb) and its compounds	Not allowed to be used. Contamination limit value: 90 mg lead/kg.

¹ "Approval from IKEA" means that IKEA applies a specific procedure where chemicals or processes are assessed concerning health and environmental aspects before a possible approval.

Material-specific requirements

Solid wood, wood-based materials, and wood-like natural materials

Note: Includes also leaf and straw, and linoleum.

Table 2 Solid wood, wood-based, and wood-like natural materials	
Substance	Requirements
Lindane	Not allowed to be used. Contamination limit value: 1.0 mg/kg.
Organotin compounds	No kind of organotin compounds are allowed to be used. Contamination limit value: Sum of all compounds listed in <i>Appendix C</i> : 2.5 mg/kg.
Pentachlorophenol (PCP) including salts and esters of PCP	Not allowed to be used. Contamination limit value: 3.0 mg/kg.
Quality assurance programme for recycled material in particleboard and wet- and dry-process fibre-board that contain any post-consumer recycled material	Boards that contain post-consumer recycled materials shall be produced with a documented quality assurance (Q.A.) programme for recycled material
Radioactivity	Maximum level: 300 Bq/kg (equals the Swedish limit value for Cs-137 in baby food).
Wood preservatives	Not allowed to be used without approval from IKEA.

Paper and cardboard materials

Table 3 Requirements for paper and cardboard materials	
Substance	Requirement
Azodyes that may release carcinogenic arylamines (see <i>Appendix A</i>)	Not allowed to be used. Contamination limit values for each arylamine: 20 mg/kg product.
Elemental chlorine (chlorine gas) used for pulp bleaching	ECF or TCF paper pulp shall be used.
Phthalates	The following phthalates are not allowed to be used: <ul style="list-style-type: none"> • phthalates that are CMR substances category 1A or 1B • phthalates that are SVHC • phthalates listed on the State of California "Proposition 65" list • dioctyl phthalate (di-n-octylphthalate) (DNOP), (CAS no. 117-84-0) Contamination limit value for each phthalate: 100 mg/kg.
Primary aromatic amines (PAA)	PAA according to <i>Appendix B</i> are not allowed to be used. Contamination limit value: 5 mg/kg for each PAA.

Textile materials

Note: Including fabrics, non-woven, hook and loop fastener (“velcro”), fibre filling, fibre-based materials in carpets, and textile applications of natural fibre materials.

Table 4 Textile materials	
Substance	Requirements
<ul style="list-style-type: none"> • Alkylphenoethoxylates (APEO) • Alkylphenols (AP) • Alkylphenol phosphites 	<p>Not allowed to be used.</p> <p>Contamination limit value for non-wool and mixtures with < 20 % wool: 100 mg/kg (sum of APEO, AP and AP phosphites).</p> <p>Limit value for mixtures with ≥ 20 % wool: 250 mg/kg (sum of APEO, AP and AP phosphites).</p>
Antimoth agents in wool	<p>Treatment of wool with antimoth agents is not allowed.</p> <p>Contamination limit value: 5.0 mg/kg.</p>
Aromatic hydrocarbon solvents used for cleaning of textile surfaces (e.g. spot cleaning)	<p>The content of total aromatic hydrocarbons in solvents shall be less than 1.0 %.</p> <p>Benzene-containing solvents are not allowed to be used.</p> <p>Contamination limit value in the solvent: 0.10 % benzene (CAS no: 71-43-2).</p>
Azodyes that may release carcinogenic arylamines (see <i>Appendix A</i>)	<p>Not allowed to be used.</p> <p>Contamination limit values for each arylamine in textiles: 20 mg/kg.</p>
Bisphenol A (CAS no. 80-05-7) in material with any content of external recycled synthetic material	Migration limit value: 0.60 mg/l.
Chlorinated aromatic dye carriers/levelling agents	<p>Not allowed to be used.</p> <p>Contamination limit value: 2.0 mg/kg for each compound.</p>
Chlorinated hydrocarbon solvents used for cleaning of textile surfaces (e.g. spot cleaning)	Not allowed to be used.
Chlorine and chlorine compounds for bleaching and delignification	<p>Not allowed to be used.</p> <p>Exception for fibre-production of bast fibres and regenerated cellulose (for example, viscose, modal and lyocell): Chlorine compound bleaching agents are allowed to be used (for example sodium hypochlorite, sodium chlorite, chlorine dioxide); whereas, elemental chlorine (chlorine gas) is not allowed to be used. That is, ECF or TCF shall be used.</p>
Dimethyl formamide (CAS. no 68-12-2)	Not allowed to be used.
Dyestuffs classified as carcinogenic or allergenic	<p>Not allowed to be used.</p> <p>List of dyestuffs and contamination limit values: See Appendix E.</p>
Flame retardants	<p>Flame retardants are only allowed to be used with approval from IKEA.</p> <p>See <i>Appendix F</i> for further requirements if flame retardants are used, as well as for contamination limit values.</p>
Formaldehyde	Limit value (unless otherwise stated): 100 ppm (ISO 14184-1)

Table 4 Textile materials	
Substance	Requirements
Heavy metals (extraction in synthetic sweat solution)	Arsenic: 0.2 mg/kg Antimony: 40 mg/kg Lead: 0.2 mg/kg Cadmium: 0.1 mg/kg Chromium (VI): 3.0 mg/kg Mercury: 0.02 mg/kg Nickel: 1.0 mg/kg Copper: 20 mg/kg Cobalt: 1.0 mg/kg
Hexavalent chromium (Cr-VI) compounds	Not allowed to be used. Contamination limit value: 100 mg Cr-VI /kg
Lindane	Not allowed to be used. Contamination limit value: 1.0 mg/kg.
Mercury (Hg) and its compounds	Not allowed to be used. Contamination limit value: 10 mg Hg/kg.
Optical brightening agents (OB)	For skin-contact materials with optical brighteners, migration test shall fulfil Grade 5 (i.e. no transfer detected).
Organic solvents in printing paste	Solvent-borne printing paste is not allowed to be used.
Organotin compounds	No kind of organotin compounds are allowed to be used. Contamination limit values: <ul style="list-style-type: none"> • for DBT and for TBT: 0.2 mg/kg each. • for sum of all compounds listed in <i>Appendix C</i>, 2.5 mg/kg.
Pentachlorophenol (PCP), Tetrachlorophenol (TeCP) and Trichlorophenol (TriCP) including their salts and esters	Not allowed to be used. Contamination limit value: <ul style="list-style-type: none"> • 0.5 mg/kg for PCP, • 0.5 mg/kg for sum of all TeCP • 0.5 mg/kg for sum of all TriCP.
Per- and polyfluoroalkyl substances (PFASs)	PFASs are not allowed to be used. Contamination limit values for some specific substances: <ul style="list-style-type: none"> • Perfluorooctane sulfonic acid (PFOS): 1 µg/m² • Perfluorooctanoic acid (PFOA): 1 µg/m²
Phthalates	The following phthalates are not allowed to be used: <ul style="list-style-type: none"> • phthalates that are CMR substances category 1A or 1B • phthalates that are SVHC • phthalates listed on the State of California "Proposition 65" list • dioctyl phthalate (di-n-octylphthalate) (DNOP), (CAS no. 117-84-0) Contamination limit value for each phthalate: 100 mg/kg.

Table 4 Textile materials	
Substance	Requirements
Polycyclic aromatic hydrocarbons (PAH)	Not allowed to be used. Contamination limit values for total of 18 polycyclic aromatic hydrocarbons (see list in <i>Appendix D</i>): 20 mg/kg Contamination limit values for total of 18 polycyclic aromatic hydrocarbons excluding naphthalene (see list in <i>Appendix D</i>): 10 mg/kg Contamination limit values for each prioritised PAH substance (see list in <i>Appendix D</i>): 0.2 mg/kg
Polyvinylchloride (PVC)	Not allowed to be used. This ban also includes usage as printing binders and in coatings.
Primary aromatic amines (PAA)	PAA according to <i>Appendix B</i> are not allowed to be used. Contamination limit value: 5 mg/kg for each PAA.
Recycled material from external source	Recycled material from external source is only allowed to be used with approval from IKEA.

Polymeric materials including plastics, silicone and rubber/elastomers/latex

Table 5 Polymeric materials incl. plastics, silicone, and rubber/elastomers/latex	
Substance	Requirements
<ul style="list-style-type: none"> • Alkylphenolethoxylates (APEO) • Alkylphenols (AP) • Alkylphenol phosphites 	Not allowed to be used. Contamination limit value: <ul style="list-style-type: none"> • 250 mg/kg for APEO and AP phosphites • 100 mg/kg for AP
Azodyes that may release carcinogenic arylamines (see <i>Appendix A</i>)	Not allowed to be used. Contamination limit value for each arylamine: 30 mg/kg.
Bisphenol A (CAS no. 80-05-7)	Migration limit value: 0.60 mg/l.
CFC (chlorofluorocarbons) and HCFC (hydrochloro-fluorocarbons)	Not allowed to be used.
Flame retardants	Flame retardants are only allowed to be used with approval from IKEA. See <i>Appendix F</i> for further requirements if flame retardants are used, as well as for contamination limit values.

Table 5 Polymerics incl. plastics, silicone, and rubber/elastomers/latex

Substance	Requirements
Heavy metals (extraction in synthetic sweat solution)	<p>Arsenic: 0.2 mg/kg</p> <p>Antimony: 40 mg/kg</p> <p>Lead: 0.2 mg/kg</p> <p>Cadmium: 0.1 mg/kg</p> <p>Chromium (VI): 3.0 mg/kg</p> <p>Mercury: 0.02 mg/kg</p> <p>Nickel: 1.0 mg/kg</p> <p>Copper: 20 mg/kg</p> <p>Cobalt: 1.0 mg/kg</p>
Hexavalent chromium (Cr-VI) compounds	<p>Not allowed to be used.</p> <p>Contamination limit value: 100 mg Cr-VI /kg</p>
Lindane	<p>Not allowed to be used.</p> <p>Contamination limit value: 1.0 mg/kg.</p>
Mercury (Hg) and its compounds	<p>Not allowed to be used.</p> <p>Contamination limit value: 10 mg Hg/kg.</p>
Organotin compounds	<p>No kind of organotin compounds are allowed to be used.</p> <p>Contamination limit values:</p> <ul style="list-style-type: none"> • for DBT and for TBT: 0.2 mg/kg each. • for sum of all compounds listed in <i>Appendix C</i>, 2.5 mg/kg.
Pentachlorophenol (PCP) including salts and esters of PCP	<p>Not allowed to be used.</p> <p>Contamination limit value is 3.0 mg/kg.</p>
Phthalates	<p>The following phthalates are not allowed to be used:</p> <ul style="list-style-type: none"> • phthalates that are CMR substances category 1A or 1B • phthalates that are SVHC • phthalates listed on the State of California "Proposition 65" list • dioctyl phthalate (di-n-octylphthalate) (DNOP), (CAS no. 117-84-0) <p>Contamination limit value for each phthalate: 100 mg/kg.</p>
Polycyclic aromatic hydrocarbons (PAH)	<p>Not allowed to be used.</p> <ul style="list-style-type: none"> • Contamination limit values for total of 18 polycyclic aromatic hydrocarbons (see list in <i>Appendix D</i>): 10 mg/kg • Contamination limit values for each prioritised PAH substance (see list in <i>Appendix D</i>): 0.2 mg/kg <p>Exception: For rubber components that contain carbon black, that are without skin-contact during usage, and where tensile and abrasion wear properties are needed (e.g. sealings), the following limit values for PAH are allowed:</p> <ul style="list-style-type: none"> • Contamination limit values for total of 18 polycyclic aromatic hydrocarbons (see list in <i>Appendix D</i>: List of polycyclic aromatic hydrocarbons (PAH)): 150 mg/kg • Contamination limit values for each prioritised PAH substance (see list in <i>Appendix D</i>): 10 mg/kg
Polyvinyl chloride (PVC)	<p>Not allowed to be used.</p> <p>Limit for PVC contamination in recycled plastic materials: 300 mg total chlorine per kg.</p>

Table 5 Polymerics incl. plastics, silicone, and rubber/elastomers/latex

Substance	Requirements
Recycled material from external source	Recycled material from external source is only allowed to be used with approval from IKEA.

Polyurethane foam

Table 6 Polyurethane foam

Substance	Requirements
2,4-Toluene-diamine (2,4-TDA, 2,4-diamino-toluene, CAS no: 95-80-7) and 2,6-Toluene-diamine (2,6-TDA, 2,6-diamino-toluene, CAS no: 823-40-5) in foam made with TDI	Limit value: Max 5.0 mg/kg for each substance
4,4'-Diamino-diphenylmethane (4,4'-MDA, 4,4'-Dimethylene-diamine) and 2,2'-Diamino-diphenylmethane (2,2'-MDA, 2,2'-Dimethylene-diamine) and 2,4'-Diamino-diphenylmethane (2,4'-MDA, 2,4'-Dimethylene-diamine) in foam made with MDI	Limit value: Max 5.0 mg/kg for each substance
Chlorine in isocyanate raw material	Isocyanate raw material: Max limit of 0.07 % total chlorine content.
CFCs (chlorofluorocarbons) and HCFCs (hydrochlorofluorocarbons)	Not allowed to be used.
Flame retardants	Flame retardants are only allowed to be used with approval from IKEA. See <i>Appendix F</i>
Organotin compounds	No kind of organotin compounds are allowed to be used. Contamination limit value for DBT and for TBT: 0.2 mg/kg each. Sum of all compounds listed in Appendix C, maximum 2.5 mg/kg.
Phthalates	The following phthalates are not allowed to be used: <ul style="list-style-type: none"> • phthalates that are CMR substances category 1A or 1B • phthalates that are SVHC • phthalates listed on the State of California "Proposition 65" list • dioctyl phthalate (di-n-octylphthalate) (DNOP), (CAS no. 117-84-0) Contamination limit value for each phthalate: 100 mg/kg.

Metals

Table 7 Metals	
Substance	Requirements
Lead and its compounds	Lead and its compounds are not allowed to be used, with the following exceptions. Lead is allowed to be used in: <ul style="list-style-type: none"> • Zink alloys with intentional addition of lead (i.e. Zamak). The lead content shall be less than 90 mg Pb/kg. • Copper-based alloys: The lead content shall be less than 0.25 %.
Radionuclides of artificial origin	Maximum contamination limit values of activity concentration for radionuclides of artificial origin shall be in accordance with the EU Council Directive 2013/59/Euratom, Table A Part 1.

Complete product – emissions and odour

Table 8 Complete product – emissions and odour	
Substance	Requirements
Emissions: – CMR substances cat. 1A and 1B – Toxic substances – Sum of VOC (Volatile Organic Compounds) – Formaldehyde – Odour	Odour If any shipment of goods emits and unpleasant or unexpected smell, or deviates from earlier shipments or from reference sample in terms of emissions/odour, which by IKEA is deemed to involve a risk of discomfort or negative health effects for customers, this is to be considered a valid cause for claim of said shipment ² . Evaluation of odour to be made by IKEA with an evaluation group of at least six persons. Emissions of volatile substances: The following minimum requirements apply: <ol style="list-style-type: none"> 1. Assessment based on evaluation of individual VVOC, VOC and SVOC substances emitted, after 48 hours for: <ul style="list-style-type: none"> • Each individual CMR substance cat. 1A and 1B: $\leq 10 \mu\text{g}/\text{m}^3$, • The sum of all CMR substances cat 1A and 1B: $\leq 50 \mu\text{g}/\text{m}^3$, • Each individual Toxic substance (excl. CMR cat. 1A and 1B): $\leq 30 \mu\text{g}/\text{m}^3$, • Formaldehyde: $\leq 120 \mu\text{g}/\text{m}^3$, 2. Sum of VOC $\leq 1.2 \text{ mg}/\text{m}^3$ after 48 hours. 3. Sum of VOC $\leq 0.6 \text{ mg}/\text{m}^3$ after 28 days. Test according to ISO 16000 (part 9, 6 and 3).
Methyl bromide, ethylene oxide and other fumigation chemicals classified as hazardous according to EU CLP regulation 1272/2008	Fumigation (gassing of products/containers with the purpose of eliminating insects, vermin or larvae or other harmful organisms) with hazardous chemical products, is not allowed.

Definitions

Term	Description
Alkylphenoethoxylates (APEO)	Sum of NPEO (nonylphenoethoxylates) and OPEO (octylphenoethoxylates). (Surface active agents. Examples of use: wetting agents, dispersing agents, detergents, emulsifiers.)

² A neutral smell is expected from materials such as glass, plastic, lacquer, textile and foam. Smell from rubber, leather and wood is expected – e.g. “normal” rubber smell is expected, whereas solvent smell from a rubber material is considered unexpected. Comparison with a representative reference sample (e.g. sample from an accepted batch) is always recommended. In case of neutral smell, cleaned conditioned air can be used as reference.

Term	Description
Aromatic hydrocarbon solvents	Solvents of unsaturated cyclic compounds (so-called benzene ring structure) made of hydrogen and carbon atoms including e.g. benzene (CAS no: 71-43-2), toluene (CAS no: 108-88-3), xylene (CAS no (group): 1330-20-7), ethylbenzene (CAS no: 100-41-4), styrene (CAS no: 100-42-5), trimethylbenzenes and higher aromatic hydrocarbons.
Biocides added in order to impart properties to the final product	<p>Biocides are chemical substances that are intended to kill living organisms. Examples are bactericides, fungicides, insecticides, herbicides. Preservatives can be biocides.</p> <p>Biocides added in order to impart properties to the final product are biocides which are contained in a material in order to have some kind of biocidal (organism-killing) effect in that material in the final product. There is no absolute ban on such additions, but in each case approval by IKEA is needed concerning the addition and the substance used. Typical examples of what is meant are biocides used:</p> <ul style="list-style-type: none"> • against smell in skin-contact fabrics, • to preserve wood that is to be used in damp environments, • in impregnated mosquito nets, • to prevent mould during transport/storage of final product, • anti-bacterial treatments. <p>The following are examples of what are not "biocides added in order to impart properties to the final product":</p> <ul style="list-style-type: none"> • Biocides/preservatives to preserve raw materials or components during production, storage and transport – prior to assembly of the product at the IKEA supplier. • Biocides/preservatives to preserve chemical products (in order to lengthen their shelf life, "in-can preservatives") that are subsequently used in the manufacture of the final product.
CFCs (chlorofluorocarbons) and HCFCs (hydrochlorofluorocarbons)	<p>CFCs are listed in the <i>Montreal Protocol on Substances that Deplete the Ozone Layer</i>, in <i>Group I of Annex A</i> and <i>Group I of Annex B</i>.</p> <p>HCFCs are listed in the <i>Montreal Protocol on Substances that Deplete the Ozone Layer</i>, in <i>Group I of Annex C</i>.</p>
Chemical product	A chemical product is a product of which the chemical properties are more important than the shape or design. It is used because of its chemical content or properties.
Chlorinated aromatic dye carriers/levelling agents	<p>Dye carriers/levelling agents are used in low-temperature dyeing of polyester. Typical chlorinated aromatic dye carriers are:</p> <ul style="list-style-type: none"> • chlorobenzenes • chloronaphthalenes • chlorotoluenes • chloroxylenes
Chlorinated hydrocarbon solvents	Solvents consisting of hydrocarbon compounds containing at least one covalently bonded atom of chlorine. Some examples of such solvents are methylene chloride (CAS no: 75-09-2), chloroform (CAS no: 67-66-3), perchloroethylene (CAS no: 127-18-4), trichloroethylene (CAS no: 79-01-6), and 1,1,1-trichloroethane (CAS no: 71-55-6).
CMR-substances category 1A or 1B	<p>Substances meeting the criteria for classification as carcinogenic, mutagenic or toxic for reproduction (CMR) category 1A or 1B in accordance with Regulation (EC) No 1272/2008 (the CLP regulation);</p> <p>Identification: Substances with harmonized classification according to Annex VI in the CLP regulation (including all subsequent adaptation to technical progress (ATP)) with hazard statement code: H350, H350i, H340 or H360.</p>

Term	Description
Contamination limit value (CLV)	<p>There is always a level of uncertainty in the testing, and moreover there may occur a low level of contamination in materials (virgin or recycled) and process chemicals used in manufacturing - therefore the contamination limit value sets the level for what is allowed in the test result.</p> <p>Unless otherwise specified, contamination limit values are given as a proportion (e.g. mg/kg) of each separate homogeneous material.</p> <p>Note: The contamination limit value does not mean that it is allowed to intentionally use the substance up to this limit.</p>
ECF	Elemental chlorine free (ECF) is a technique that uses chlorine compounds, e.g. chlorine dioxide – but not chlorine gas (elemental chlorine) – as well as other non-chlorine-containing bleaching agents for the bleaching of pulp from wood or other cellulose fibres.
ECHA	European Chemicals Agency
Fibre filling (textile)	Fibres with function as filling material including both loose fibres and fibre wadding.
Hazardous waste	<p>Waste is defined in this specification as hazardous if it meets any one of the following criteria:</p> <ul style="list-style-type: none"> • it is classified as hazardous in the country of production of the IKEA product (or of components thereof or of constituent materials), • it is classified as hazardous in the country from which such waste material has been exported, • it is defined as hazardous waste according to the European Union waste legislation (EU Commission Decision on the European List of Waste, COM 2000/532/EC).
Leaf and straw	Natural materials such as banana leaves, palm leaves, sea grass, water hyacinth and straw.
Not allowed to be used	<p>“Not allowed to be used” means that a substance shall not be added to or used to manufacture, treat or process a material for an IKEA product, in any step of the manufacturing process of material and product, unless otherwise specified.</p> <p>“Not allowed to be used” does not include the use of organic compounds used for chemical synthesis if the original substance disappears (i.e. is chemically transformed) during a chemical manufacturing process. Nor does it include the use, for manufacturing polymers (including synthetic textile fibres), of Polymerization Production Aids (PPA), i.e. substances used in the medium in which the polymerization takes place (surfactants, solvents).</p> <p>However, if a substance that is not allowed to be used according to this specification is used for chemical synthesis or as a PPA, the residue shall be less than the specified contamination limit value.</p>
Organotin compounds	<p>A group of compounds composed of the metal tin covalently bonded with an organic molecule/radical, for instance butyl, octyl or phenyl. (These radicals are collectively known as alkyls and aryls.) The tin is in the tetravalent state - Sn (IV). Organotin compounds may also be known as tinorganic compounds.</p> <p>Each kind of organotin, e.g. dibutyltin (DBT), is actually several different substances. DBT, MBT, TBT, DOT etc. are positive ions, cations, and they can have many different negative counter-ions (anions), e.g. chloride, oxide, laurate.</p> <p>Note: The limit values in the requirements refer to the alkyl-/aryl-tin cation, without the counter-ion.</p>
Per- and polyfluoroalkyl substances (PFASs)	For this specification: PFASs are organic compounds that contain one or more perfluoroalkyl moieties, $-C_nF_{2n+1}$, where $n \geq 3$.

Term	Description
Phthalates	Diesters of 1,2-benzenedicarboxylic acid.
Post-consumer recycled material	A material that has been used by a consumer (i.e. not including production waste). In the case of wood chips, it would mean, for instance, chips made from scrapped furniture or scrap wood from housing and other building structures, e.g. after pulling down a house and sorting out the wood waste.
Proposition 65	<p>"Proposition 65", (formally titled "The Safe Drinking Water and Toxic Enforcement Act of 1986"), administered by California Office of Environmental Health Hazard Assessment (OEHHA), regulates substances officially listed by California as having a 1 in 100 000 chance of causing cancer over a 70 year period or birth defects or other reproductive harm.</p> <p>An updated list of Proposition 65 at time of publication of this specification is available on http://www.oehha.ca.gov/prop65.html (Select "Proposition 65 List of Chemicals" in the menu in the left-hand margin.)</p>
Radionuclides of artificial origin	Radionuclides for which - contrary to natural occurring radionuclides - the radioactivity has been induced by irradiation in e.g. nuclear reactors, cyclotrons, particle accelerators or radionuclide generators.
Recycled material from external source	Production waste from other factory than the manufacturer of the product and post-consumer recycled material.
Skin-contact during usage (for polymeric)	For determination of whether the skin-contact requirement is applicable: if the product in usage involves an estimated skin contact of a duration of more than 30 seconds, it is deemed a skin-contact item. Example: latex-backings of rugs are not considered as skin-contact.
Solid wood	Pure natural wood and glued solid wood (solid wood panel). (The term glueboard has also been used for glued solid wood.)
Sum of Volatile Organic Compounds (VOC)	<p>In the ISO 16000-6 test of VOC emissions: Sum of the individual concentrations of VOC (Volatile Organic Compounds) detected in the chromatography between and including n-hexane and n-hexadecane (often indicated as C₆-C₁₆ in the test reports). This sum does not include SVOC (Semivolatile Organic Compounds) or VVOC (Very Volatile Organic Compounds).</p> <p>SVOC are the substances which are found in the ISO 16000 test of VOC emissions, but are found in the chromatography after n-hexadecane.</p> <p>VVOC are the substances which are found in the ISO 16000 test of VOC emissions, but are found in the chromatography before n-hexane.</p> <p>For the purpose of this specification, VOC also includes inorganic volatile compounds, such as CS₂, that can be quantified with analysis according to ISO 16000-6 or related analytical procedures.</p>

Term	Description
SVHC (Substances of Very High Concern)	<p>SVHC are substances selected according to EU REACH regulation 1907/2006³ Art. 59(1), for inclusion in the "Candidate list" for eventual inclusion in Annex XIV. This list is published on the European Chemical Agency (ECHA) website, as "Candidate List of substances of very high concern for Authorisation", and includes:</p> <ul style="list-style-type: none"> • Substances which are carcinogenic, mutagenic or toxic for reproduction (CMR) category 1A or 1B as defined in the EU REACH regulation 1907/2006³ Art. 57 (a), (b), and (c); (Note: SVHC that are CMR cat 1A or 1B are a subgroup of all CMR cat. 1A and 1B); • Substances which are persistent, bio-accumulative and toxic (PBT) in accordance with the criteria set out in Annex XIII of the REACH Regulation; • Substances which are very persistent and very bio-accumulative (vPvB) in accordance with the criteria set out in Annex XIII of the REACH Regulation; • Other SVHC: Substances as defined in the EU REACH regulation 1907/2006³ Art. 57 (f), giving rise to an equivalent level of concern to substances meeting the above criteria. Such substances may have endocrine disrupting properties or have properties, that although not meeting the criteria for being a CMR, PBT or vPvB, there is scientific evidence of probable serious effects to human health or the environment. Such substances will be identified on a case-by-case basis by ECHA.
SVOC	Semivolatile Organic Compounds, see <i>Sum of Volatile Organic Compounds (VOC)</i>
Synthetic fibre	<p>Synthetic fibres are often based on petroleum as a raw material – e.g. polyester, nylon (polyamide), polypropylene and polyacrylic fibres. They can also be based on biological raw material – e.g. polylactic acid (PLA).</p> <p>Note: "Synthetic fibre" does not include regenerated fibres, i.e. materials which are based on natural, renewable materials that are broken down to monomers and then reconstituted, e.g. viscose, lyocell and acetate fibres.</p>
TCF	<p>Total chlorine free (TCF) is a technique that uses no chlorine compounds for the bleaching of pulp from wood or other cellulose fibres.</p>
Textile	<p>Fibres, filaments and yarns and materials made of these such as woven, knitted and non-woven fabrics. Fibre fillings are also included in the requirements listed under the heading textile; whereas feathers and down-fillings are however not counted as "textile" in this specification. Coatings on textile materials are seen as part of the textile material.</p>

³ With amendments in Regulation (EC) No 1272/2008 (the CLP regulation).



IKEA of Sweden AB

Specification

Chemical compounds and substances

Term	Description
Textile applications for natural fibre materials	Materials based on natural fibre materials such as: <ul style="list-style-type: none">• banana fibres,• cactus fibres,• coir,• hemp,• jute,• maize fibres,• palm leaves,• sisal,• sea grass, and where the fibrous material is woven, knitted or otherwise like a fabric. Carpets based on these and similar natural fibre materials also count as textile applications.
Total Volatile Organic Compounds (TVOC)	The toluene equivalent measurement of all VOC in the ISO 16000-6 test of VOC emissions. See also definition of " Sum of Volatile Organic Compounds (VOC) ".
Toxic substances	Substances, which according to the CLP-regulation 1272/2008 are classified as CMR Cat 1A or 1B, STOT RE 1 (specific target organ toxicity repeated exposure), STOT SE 1 (specific target organ toxicity single exposure) or Acute Tox cat 1-3.
VVOC	Very Volatile Organic Compounds, see <i>Sum of Volatile Organic Compounds (VOC)</i>
Wood-based materials	Materials made from wooden particles or layers, e.g. particleboard, OSB, fibreboard, plywood, layer-glued materials, or veneer. Particleboard, OSB, or fibreboard made of any other cellulosic materials are also included.
Wood-like natural materials	This includes natural materials such as bamboo, cork, rattan and willow.

Appendix A: Prohibited arylamines

Table A Prohibited arylamines		
Substance		CAS no.
1	4-aminodiphenyl	92-67-1
2	benzidine	92-87-5
3	4-chloro-o toluidine (2-amino-5-chloro-toluene)	95-69-2
4	2-naphtylamine (2-amino-naphtalene)	91-59-8
5	2-amino-azotoluene	97-56-3
6	2-amino-4-nitrotoluene	99-55-8
7	4-chloroaniline	106-47-8
8	2,4-diaminoanisole	615-05-4
9	4,4'-diaminodiphenylmethane	101-77-9
10	3,3'-dichlorobenzidine	91-94-1
11	3,3'-dimethoxybenzidine	119-90-4
12	3,3'-dimethylbenzidine	119-93-7
13	3,3'-dimethyl-4,4'-diaminodiphenylmethane	838-88-0
14	p-cresidine (2 methoxy-5-methylaniline)	120-71-8
15	4,4'-methylene bis-(2-chloroaniline)	101-14-4
16	4,4'-oxydianiline	101-80-4
17	4,4'-thiodianiline	139-65-1
18	o-toluidine (2-amino-toluene)	95-53-4
19	2,4-toluediamine (2,4-diamino-toluene)	95-80-7
20	2,4,5-trimethylaniline	137-17-7
21	2-methoxyaniline	90-04-0
22	4-amino azobenzene	60-09-3
23	2,4-xylidine	95-68-1
24	2,6-xylidine	87-62-7

Appendix B: Primary aromatic amines (PAA)

Table B Primary aromatic amines (PAA)		
Compound	CAS no.	Health effects
benzidine	92-87-5	carcinogenic
2-naphthylamine	91-59-8	carcinogenic
4-chloroaniline	106-47-8	carcinogenic
3,3-dichlorobenzidine	91-94-1	carcinogenic
3,3-dimethoxybenzidine	119-90-4	carcinogenic
3,3-dimethylbenzidine	119-93-7	carcinogenic
o-toluidine	95-53-4	carcinogenic
2-methoxyaniline (o-anisidine)	90-04-0	carcinogenic
aniline and salts of aniline	62-53-3 and various	carcinogenic

Appendix C: List of organotin compounds included in standard tests

Table C List of organotin compounds	
Compounds	Abbreviation
dibutyltin compounds	DBT
dioctyltin compounds	DOT
monobutyltin compounds	MBT
monooctyltin compounds	MOT
tetrabutyltin compounds	TeBT
tributyltin compounds	TBT
tricyclohexyltin compounds	TCyT (TCHT)
triphenyltin compounds	TPhT
monomethyltin compounds	MeT
dipropyltin compounds	DProT
diphenyltin compounds	DPhT

Appendix D: List of polycyclic aromatic hydrocarbons (PAH)

Table D1 Prioritised polycyclic aromatic hydrocarbons (PAH)	
Compounds	CAS no.
benzo(a)anthracene	56-55-3
benzo(a)pyrene	50-32-8
benzo(e)pyrene	192-97-2
benzo(b)fluoranthene	205-99-2
benzo(j)fluoranthene	205-82-3
benzo(k)fluoranthene	207-08-9
chrysene	218-01-9
dibenzo(a,h)anthracene	53-70-3

Table D2 Other polycyclic aromatic hydrocarbons (PAH)	
Compounds	CAS no.
acenaphthene	83-32-9
acenaphthylene	208-96-8
anthracene	120-12-7
benzo(ghi)perylene	191-24-2
fluoranthene	206-44-0
fluorene	86-73-7
indeno(1,2,3-cd)pyrene	193-39-5
naphthalene	91-20-3
phenanthrene	85-01-8
pyrene	129-00-0

Appendix E: List of banned textile dyestuffs

Table E List of banned textile dyestuffs			
Dyestuffs	Colour index no.	CAS no.	Contamination limit (DIN 54231) mg/kg in textile
Disperse Blue 1	64500	2475-45-8	15 mg/kg
Disperse Blue 3	61505	2475-46-9	75 mg/kg
Disperse Blue 7	62500	3179-90-6	75 mg/kg
Disperse Blue 26	63305	3860-63-7	75 mg/kg
Disperse Blue 35	--	12222-75-2	75 mg/kg
Disperse Blue 102	--	12222-97-8	75 mg/kg
Disperse Blue 106	--	12223-01-7	75 mg/kg
Disperse Blue 124	--	61951-51-7	75 mg/kg
Disperse Brown 1	--	23355-64-8	75 mg/kg
Disperse Red 1	11110	2872-52-8	75 mg/kg
Disperse Red 11	62015	2872-48-2	75 mg/kg
Disperse Red 17	11210	3179-89-3	75 mg/kg
Disperse Orange 1	11080	2581-69-3	75 mg/kg
Disperse Orange 3	11005	730-40-5	75 mg/kg
Disperse Orange 11	60700	82-28-0	15 mg/kg
Disperse Orange 37/59/76	11132	13301-61-6	75 mg/kg
Disperse Orange 149	--	85136-74-9	15 mg/kg
Disperse Yellow 1	10345	119-15-3	75 mg/kg
Disperse Yellow 3	11855	2832-40-8	15 mg/kg
Disperse Yellow 9	10375	6373-73-5	75 mg/kg
Disperse Yellow 23	26070	6250-23-3	75 mg/kg
Disperse Yellow 39	--	12236-29-2	75 mg/kg
Disperse Yellow 49	--	54824-37-2	75 mg/kg
Acid Red 26	16150	3761-53-3	15 mg/kg
Acid Red 114	23635	6459-94-5	15 mg/kg
Acid Violet 49	42640	1694-09-3	15 mg/kg
Basic Blue 26	--	2580-56-5	15 mg/kg
Basic Red 9	42500	569-61-9	15 mg/kg
Basic Violet 1	42535	8004-87-3	15 mg/kg
Basic Violet 3	42555	548-62-9	15 mg/kg
Basic Violet 14	45510	632-99-5	15 mg/kg
Direct Black 38	30235	1937-37-3	15 mg/kg
Direct Blue 6	22610	2602-46-2	15 mg/kg
Direct Red 28	22120	573-58-0	15 mg/kg
Solvent Blue 4	--	6786-83-0	15 mg/kg
Solvent Yellow 2	11020	60-11-7	15 mg/kg
Solvent Yellow 3	11160	97-56-3	15 mg/kg
Direct Brown 95		16071-86-6	15 mg/kg
Michler's Base		101-61-1	15 mg/kg
4,4-bis(dimethylamino)-4-(methylamino)trityl alcohol		561-41-1	15 mg/kg

Appendix F: Flame retardant requirements

The overall rule is that flame retardants are only allowed to be used with approval from IKEA. When such approval is given the specific flame retardant treatment shall be documented by the IKEA supplier. Minimum information:

- Flame retardant trade name
- manufacturer
- active ingredients and their concentrations
- SDS

Totally banned flame retardants

The following flame retardants are never allowed to be used, even when permission is given for use of some flame retardant:

- Organic brominated compounds
- Antimony compounds; exception: antimony is allowed with approval, when approval is given for use of flame retardant, as a flame retardant integrated inside the fibre (e.g. Kanecaron and similar fibres) - as opposed to addition of antimony as a finish to the material.
- Chlorinated paraffins (alkanes) with 10-13 carbon atoms and a degree of chlorinating exceeding 48 % by weight
- TEPA (tris-(aziridinyl)phosphine oxide), CAS no. 545-55-1
- TDCP (tris(1,3-dichloro-2-propyl) phosphate, CAS no. 13674-87-8)
- TCEP (tris-(2-chloroethyl) phosphate, CAS no. 115-96-8)

Contamination limit values

- Antimony: 200 mg/kg. Note: This limit value refers to antimony when added as a finish.
- Brominated flame retardants: 100 mg Br/kg (for expanded polystyrene: 250 mg Br/kg)
- Chlorinated paraffins: 100 mg Cl/kg
- Other flame retardants (TEPA, TDCP and TCEP, as well any other flame retardant unless specifically allowed in the TED): 200 mg/kg

Information on IKEA chemical requirements for other materials and product types

The requirements described in this document concerns chemical substances in all materials and components in IKEA products, except the following areas for which separate requirement documents exists:

- surface coatings and coverings
- leather
- artificial leather (PU-coated fabric)
- candle raw materials
- adhesives
- electrical materials/components
- latex in mattresses
- labels
- chemical products retailed by IKEA
- art materials that contain chemical products
- zip fasteners
- formaldehyde in wood and wood-based materials

For children's products, toys and products and materials in contact with foodstuffs, additional requirements concerning chemical compounds and substances apply. These requirements are listed in separate requirement documents.