

## 14.12 Technical Checklist A20: Miljøgiftslisten

### Checklist A 20

PRODUCT GROUP	CHEMICALS TO BE AVOIDED	ARE SWAN-LABELLED PRODUCTS AVAILABLE? (pr okt-11, can easily be substituted, www.ecolabel.no)	DOCUMENTATION (to be filled in for each project) (When using products labelled with the Swan or the EU –flower, no other documentation is necessary to confirm that requirements are met)
<b>Building materials</b>			
Boards	Arsenic, Lead, Brominated flame retardants (HBCD, TBBPA), Phthalates DEHP, BBP and DBP, Chromium, Octyl-/Nonylphenol	Yes	
Vinyl flooring	Phthalates DEHP, BBP, DBP, Bisphenol A, Lead, Brominated flame retardants (HBCD, TBBPA), medium-chained chlorinated paraffins (short-chain paraffins are prohibited)	No	
Wallpaper (vinyl-/wet room wallpaper and fibreglass wallpaper)	Brominated flame retardants (HBCD, TBBPA), Phthalates DEHP, BBP and DBP, Lead, Arsen og medium-chained chlorinated paraffins	No	
Carpets	PFOS/PFOA	No	
Woodwork	Creosote	Yes	
XPS (extruded polystyrene), EPS (expanded polystyrene) Cellular rubber insulation	Brominated flame retardants (HBCD, TBBPA) (flame retardants penta-, okta- og deka-BDE is prohibited)	No	
Polycarbonate sheet	All polykarbonat contains Bisphenol A	No	
Windows/ exterior doors	Bisphenol A, Brominated flame retardants (HBCD, TBBPA), Phthalates DEHP, BBP and DBP, chlorinated paraffins, PFOS/PFOA, Octyl-/Nonylphenol	Yes	
<b>Chemical products</b>			
Glue	Bisphenol A, BBP and DBP, chlorinated paraffins, Krom, Octyl-/Nonylphenol	Yes	
Fillers, sealants and foam	Bisphenol A, Phthalates DEHP, BBP og DBP, chlorinated paraffins, Chromium, Octyl-/Nonylphenol, siloksan (D5)	Yes	
Paint, stains and varnishes	Bisphenol A, Lead, Phthalates DEHP, BBP and DBP, cadmium, chlorinated paraffins, Chromium, Octyl-/Nonylphenol og siloksan (D5)	Yes	

## Information regarding checklist A20

### Background

The list is based on Klifs list of the most environmentally hazardous chemicals, the “worst chemicals”, and their list of what chemical products and building materials they can be found in. Klif has gathered this information on their website [www.erdetfarlig.no](http://www.erdetfarlig.no).

The basis for BREEAM-NORs requirements on documenting the absence of the “worst chemicals” lies in the law of product control § 3a The substitution duty, and TEK 10 § 9-2. Also, most products containing the “worst chemicals” are categorised as hazardous waste. The disposal of hazardous waste when replacing products means increased costs for the building owner.

Checklist A20 contains the most health- and environmentally hazardous chemicals based on Klifs assessment. There are more health- and environmentally hazardous chemicals in building materials. Visit [www.erdetfarlig.no](http://www.erdetfarlig.no) for further information. However, the minimum requirement of the content of these health- and environmental hazardous chemicals in BREEAM-NOR, is only related to Checklist A20.

### How to use the checklist.

For each building material given in the left column, the project must document the absence of the corresponding chemicals in the building material. If the project does not use the building material in the left column, the project manager must confirm this in writing. When several products are used within each product group, ex. different types of paint or glue, all products used in the project must be checked out and documented.

The project can write a deviation statement if one finds it necessary, due to technicalities, to use a product which contains one of the “worst chemicals”. The deviation statement must be approved by auditor to be valid as an exception from BREEAM-NORs minimum requirements.

For building materials, approved documentation is one of the following:

- EPD (Environmental Product Declaration) stating the chemical content
- Sintef Byggforsk Teknisk Godkjenning (TG) of 1.1.10, as a guarantee that the product does not contain the listed chemicals.
- Eco – labelled the Swan or the EU-flower, for a listing of the labelled products see [www.ecolabel.no](http://www.ecolabel.no)
- A letter from the legally responsible at the producer in question stating that the given product does not contain one of the chemicals from the A20 checklist.

For chemical products one can also check against the Safety Data Sheet (EHS – data sheet) for the product. Safety Data Sheets are statutory for chemical products. The unwanted chemicals may occur under alternative conditions. Therefore; see the following alternative names for the different chemicals:

<b>Bisfenol A:</b> 4, 4'-isopropylidendifenol 4, 4'-(1-metyletyliden)bisfenol	<b>Bromerte flammehemmere:</b> Tetrabrombisfenol A (TBBPA) Heksabromsyklododekan (HBCDD)
<b>Ftalater</b> Di(2-Ethylhexyl)phthalate Dietylheksylftalat	<b>PFOS/PFOA</b> Perfluoroktansulfonat Perfluoroktansyre
<b>Oktyl-/nonylfenoler</b> Octylphenol Nonylphenol Oktylfenoletoksilat Octylphenol ethoxylate Nonylfenoletoksilat Nonylphenol ethoxylate Poly(oxy-1,2-ethanediyl), a-(nonylphenyl)-w-hydroxy- Fenol, 4-nonyl-, forgrenet	<b>Bly</b> Pb Lead Blykromat Blyfosfitt Blyoksid (blymønje) Blymonoksid Tetraetylbly Blynaftenat Blyulfomolybdatkromat (C.I.Pigment Red 104) Blyulfokromatgul (C.I.Pigment Yellow 34)
<b>Krom</b>	<b>Klorparafiner</b>

<p>Dikromtrioksid Kromtrioksid Blyulfokromatgul (C.I.Pigment Yellow 34) Blyulfomolybdatkromat (C.I.Pigment Red 104) Natriumdikromat Strontiumkromat Bariumkromat</p>	<p>Chlorinated paraffins Mellomkjedete klorparafiner Klorerte alkaner, C14-17 Medium chained chlorinated paraffins (MCCP)</p>
<p><b>Arsen</b> Arsensyre Arsin (arsenhydrid) Blyhydrogenarsenat Diarsenpentoksid (arsenpentoksid) Diarsentrioksid (arsentrioksid, arsenikk) Trietylarsenat Galliumarsenid</p>	<p><b>Siloksan</b> D5 Cyclomethicone Cyclopentasiloxane Pentacyclomethicone Dekametylsyklopentasiloksan</p>
<p><b>Kadmium</b> Cd Cadmium Kadmiumcyanid Kadmiumoksid Kadmiumsulfid Kadmiumformiat Kadmiumfluorid Kadmiumjodid Kadmiumklorid Kadmiumsulfat Kadmiumheksafluorsilikat(2-)</p>	