

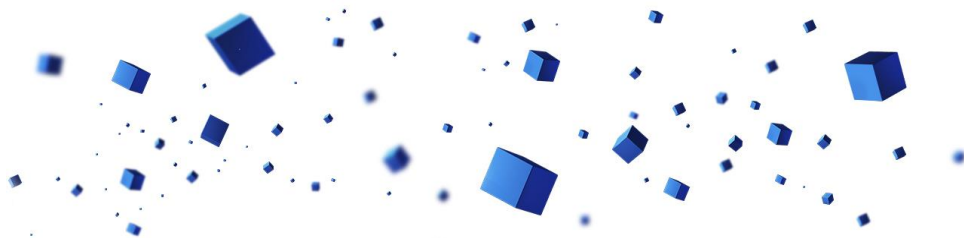
bluesign® system substances list (BSSL)

Consumer safety limits

CHANGES 2023

Version 14.0, 01 July 2023 – compared to Version 13.0, 01 July 2022





Purpose

This document provides an overview of the changes in BSSL version 14.0 compared to version 13.0. Changes are marked in red.

Validity of BSSL 14.0

BSSL 14.0 comes into force on 01 July 2023.

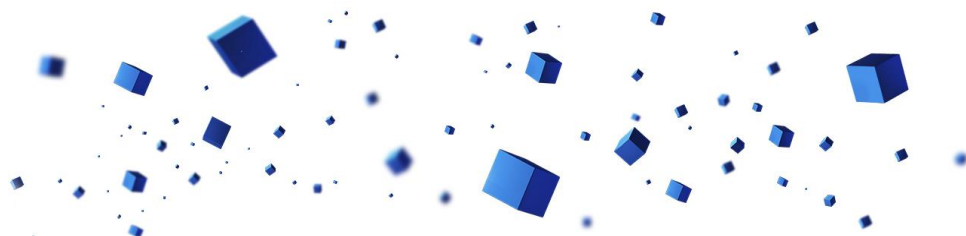
It replaces the bluesign® system substances list (BSSL) version 13.0 from 01 July 2022.

For all bluesign® SYSTEM PARTNERS: Unless otherwise stated, the revised sections will be implemented by 01 July 2024 at the latest.

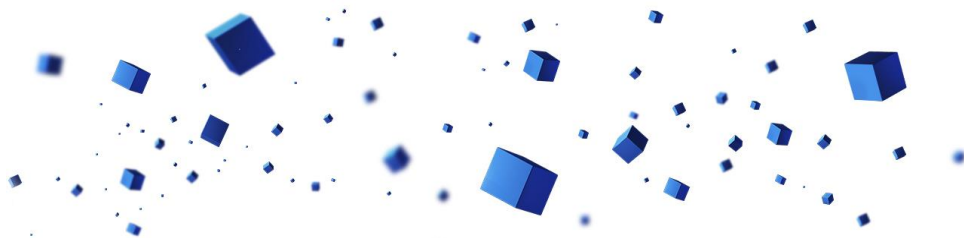
Consumer Safety Limits

pH-Value: Revised methods and change of pH-range for leather products: 3.2 - 4.5 (Topic 5.1 in BSSL)

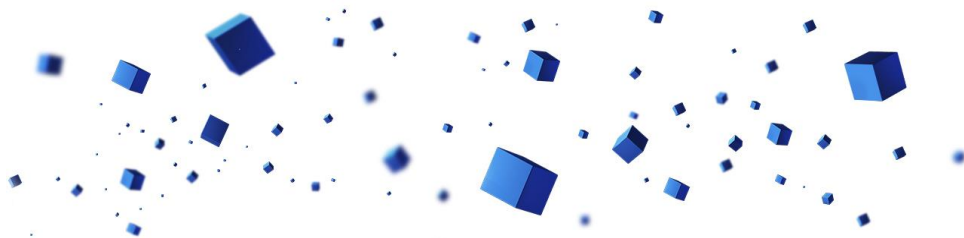
| Aldehydes | | | | | | |
|---|------------|---------------|------------|-------------|-------|---|
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Glutaraldehyde | 111-30-8 | Leather | Usage ban | 50 | mg/kg | Change from Limitation to Usage ban. |
| Alkylphenoethoxylates (APEOs) | | | | | | |
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Alkylphenoethoxylates (APEOs) | Several | All | Usage ban | 100 | mg/kg | New group limit. For sum of all restricted APEOs. Goal should be 100 for APEOs + APs. |
| Alkylphenols (APs) | | | | | | |
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Alkylphenols (APs) | Several | All | Usage ban | 10 | mg/kg | New group limit. For sum of all APs. |
| Group of: Tris(4-nonylphenyl, branched and linear) phosphite | Several | All | | | | The whole group is deleted from BSBL. SVHC restriction is covered by NP. |
| Amines | | | | | | |
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Melamine | 108-78-1 | All | Usage ban | 200 | mg/kg | New substance. |



| Biocides | | | | | | |
|---------------------------------------|--------------------------|---------------|------------|-------------|-------|---|
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Pyriithione sodium | 3811-73-2 | All | Limitation | 50/200/200 | mg/kg | New substance in BSSL. |
| Colorants | | | | | | |
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Disperse Blue 124 | 61951-51-7 15141-18-1 | All | Usage ban | 200 | mg/kg | Additional CAS no. added |
| Flame Retardants | | | | | | |
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Bis(2-ethylhexyl) tetrabromophthalate | 26040-51-7 | All | Usage ban | 5 | mg/kg | New substance. |
| Tribromodiphenyl ether - (TriBDE) | 49690-94-0 | All | Usage ban | 5 | mg/kg | New substance. |
| Metals | | | | | | |
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Antimony - as content | 7440-36-0 | Fibers/yarns | Limitation | 260 | mg/kg | New comment to clarify: Valid for polyester fibers (also dope dyed), but not for finished polyester textiles. |
| Barium - as content | 7440-39-3 | Textiles | Limitation | 1000 | mg/kg | Extractable metal content. Change of limit for textile, now same limit for all sectors of use. |
| Monomers | | | | | | |
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Tetrafluoroethylene | 116-14-3 | All | Usage ban | 1.0 | mg/kg | Moved from group PFCA (is not PFAS) to Monomers. No change of limit. |
| Other Chemical Substances | | | | | | |
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Azodicarbonamide (ADCA) | 123-77-3 | All | Usage ban | 100/200/200 | mg/kg | Change from Limitation to Usage ban. |
| Bisphenol AF | 1478-61-1 | All | Usage ban | 100 | mg/kg | Change from Monitoring to Usage ban. |
| Bisphenol F | 620-92-8 | All | Usage ban | 100 | mg/kg | Change from Monitoring to Usage ban. |
| Bisphenol S | 80-09-1 | All | Usage ban | 100 | mg/kg | Change from Monitoring to Usage ban. Specific limit for leather tanning and textile aftertreatment: 500 ppm. |



| Other Chemical Substances | | | | | | |
|---|------------|---------------|------------|-------------|-------|--|
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Barium diboron tetraoxide | 13701-59-2 | All | Usage ban | 100 | mg/kg | New substance. |
| 2-Butanone oxime | 96-29-7 | All | Usage ban | 1/10/10 | mg/kg | New: Usage ban and limits. |
| 3,5-Dimethylpyrazole | 67-51-6 | All | Limitation | 50/200/200 | mg/kg | Change from Monitoring to Limitation. |
| Formamide | 75-12-7 | All | Usage ban | 50/50/200 | mg/kg | Higher limit for C (from 100). |
| Phenol | 108-95-2 | All | Limitation | 20/50/100 | mg/kg | Higher limit for A (from 10). |
| D5-Siloxane | 541-02-6 | All | Usage ban | 200 | mg/kg | Higher limit (from 50). |
| D6-Siloxane | 540-97-6 | All | Usage ban | 200 | mg/kg | Higher limit (from 50). |
| Perfluoroalkyl Carboxylic Acids and Derivatives - PFCA | | | | | | |
| Perfluoroalkyl Sulfonic Acids and Derivatives - PFSA | | | | | | |
| Both groups are merged to a new group: PFAS (Poly- and perfluoroalkyl substances) | | | | | | |
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| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| PFAS (Poly- and perfluoroalkyl substances) | Several | All | Usage ban | 50 | mg/kg | New group. Limit refers to total fluorine content. See also "Guidance Sheet PFAS phase out" and PFAS statement in section 6. |
| Perfluorocarboxylic acids and its salts | Several | All | | | | Entry deleted because of new structure and limits. |
| Perfluorohexanoic acid and its salts | Several | All | Usage ban | 25 | µg/kg | New limit value. |
| Perfluorocarboxylic acid (C9-C14) and its salts | Several | All | Usage ban | 25 | µg/kg | New defined group, legal limit. |
| Perfluorobutanoic acid related substances | Several | All | Usage ban | 1 | mg/kg | New defined group. |
| 4:2 Fluorotelomer alcohol (4:2 FTOH) | 2043-47-2 | All | Usage ban | | | New substance, alignment MRSL. Limit on group level. |
| Perfluorocarboxylic acid (C9-C14) related substances | Several | All | Usage ban | 260 | µg/kg | New defined group, legal limit. |
| Perfluorodecanoic acid related substances | Several | All | Usage ban | | | New subgroup, limit on higher level. |
| 10:2 Fluorotelomer alcohol (10:2 FTOH) | 865-86-1 | All | Usage ban | | | New substance, align MRSL. Limit on group level. |
| Perfluorodecane sulfonic acid | 335-77-3 | All | Usage ban | | | New substance. Limit on group level. |



| Solvents | | | | | | |
|------------------------------------|------------|-----------------------------|------------|-------------|-------|---|
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| DMF | 68-12-2 | Textile/ solvent coating | Limitation | 50/50/250 | mg/kg | Change of exceptional limit for solvent coating for usage range C: 250 mg/kg (from 50). Requirement to re-check in 2025. |
| 2-Pyrrolidone | 616-45-5 | All | Usage ban | 50/100/100 | mg/kg | New: Usage ban. |
| Xylene, all isomers | 1330-20-7 | All | Usage ban | 50/100/100 | mg/kg | Clarification of exception: Usage ban not valid for solvent coating, laminating and painting/lacquering. Limits valid for all articles. |
| Tin-organic Compounds | | | | | | |
| Chemical Name | CAS Number | Sector of Use | Limit Type | Value A/B/C | Unit | Comment |
| Monobutyltin-tris-(ethylhexanoate) | 23850-94-4 | All | Usage ban | | | New substances, limit on group level. |
| Dibutyltin bis (2-ethylhexanoate) | 2781-10-4 | All | Usage ban | | | |
| Dibutyltin di(acetate) | 1067-33-0 | All | Usage ban | | | |

Revised test methods

| Substances | Revision | Comment |
|---|--|---------------------------------------|
| Arylamines | BSSL, Leather: Use new version of method EN ISO 17234-1:(2020). | New version |
| Chlorinated Phenols | Add method for leather (EN ISO 17070). | |
| Colorants | Update version for all colorants: DIN 54231 (2022). | New version |
| Cr VI (for leather) | Add to BSSL comment: Thermal pre-ageing test required in advance: ISO 10195:2018. | Thermal pre-ageing |
| Several solvents (2-Pyrrolidone, NEP, NMP, DMF, DMAc) | Replace CEN ISO 16189 (2013) by ISO 16189 (2021). | |
| Cyclic Siloxanes (D4-, D5-, D6-) | Reference to updated version: TEGEWA method (2021). | New version |
| Polyaromatic hydrocarbons (PAHs) | Add EN17132 or ISO 16190 as alternative methods. | |
| PVC | Total chlorine (EN 14582) // FTIR (when chlorine detected) | Based on problems with quantification |
| UV Stabilizers | Align BSSL with AFIRM: ISO 24040 // Extraction with Tetrahydrofuran // GC-MS. | Align with AFIRM |