Washington state draft report – safer products

Table 1. Due to inclusion of Phthalates in EU Rohs and priority chemical restriction, I consider phthalates used in electric and electronic equipment there safer alternatives are available on TCO Certified ASL should be added to the list in Table 1.

Electric and electronic equipment (plastic device casings) Page22
Flame retardants are not only added to plastics, but can be bound reactively to plastic polymer. It's proposed that reactively bound plastic can reduce leaching of the chemical, although if not recycled responsibly it is likely they can still be released into the environment.

Reactive flame retardants are added during the polymerisation process and become an integral part of the polymer. The result is a modified polymer with flame retardant properties and different molecular structure compared to the original polymer molecule.

Additive flame retardants are incorporated into the polymer prior to, during, or more frequently after polymerisation. Additive flame retardants are monomer molecules that are not chemically bonded to the polymer as reactive flame retardants.

Phthalates page 28

Worth mentioning also that these chemicals continue to have a wide use as plasticisers for electrical cables. RoHs restricts 4 phthalates used for electronic equipment, which is why we started a positive list for safer alternative plasticisers on TCO Certified ASL.

Alternative chemicals – page 51
Can be good to mention that the ASL listed OPFRs are used for product enclosures and <u>printed circuit boards.</u>

P141 2nd paragraph - add <u>Certified</u> to mention of TCO.

P141
DPHP, DMP as well as 5 other plasticisers were removed from TCO Certified ASL on Dec 1, 2021 since their GreenScreen benchmark assessments were no longer valid (after 3 years) and no stakeholder updated the assessments to keep the chemicals on TCO Certified ASL. This indicates the use of plasticisers has transitioned to using the few that are updated on TCO Certified ASL, since we started the list 2018, when GS assessments had a 3 year validity.

Table 43. for DEP and DPHP need to show that these BMs are not presently valid (as I am presently aware of).

Page 147 – **Dinch, ATBC, DEHA** was removed from TCO Certified ASL Dec 1, 2021 due to no longer valid GS assessment benchmark that was not updated.

Section 5 – TCO Certified – Several incorrect references to TCO Certified and the ASL that need correction.

The certification is named *TCO Certified*

The host organization is named *TCO Development*

The Accepted Substance List is named - *TCO Certified Accepted Substance List or TCO Certified ASL*

5.1 Ingredient transparency – reference to TCO Certified generation 9. The list of process chemicals is no longer a draft list. The draft is removed and 14 GS benchmarked cleaning solvents are added to TCO Certified ASL. Valid since Dec 1, 2021.

Page 266 – TCO Certified reveals all CASRN GS benchmarks on TCO Certified ASL. The buyer knows the FR is either BM2 or 3. Due to confidentiality it is not likely the seller will share the specific CASRN with the buyer, unless through NDA perhaps.

5.2 Criteria transparency – Hazard criteria used to evaluate FRs, plasticisers and process chemicals

Additional information

Since the launch of TCO Certified generation 9 we have launched an addition list of chemicals we call the **Potential candidates for TCO Certified Accepted Substance List**

This list presents substances that have been previously reviewed by toxicologists. Their assessments indicate that the substances may be classed as safer alternatives. However, to be added to TCO Certified Accepted Substance List, an updated assessment must be carried out by a Licensed GreenScreen Profiler. The substance must receive a benchmark score of 2, 3, or 4 and the assessment report must be submitted to TCO Development. If a substance has been assessed in accordance with a chemical hazard assessment framework other than GreenScreen, it must be converted to GreenScreen.