
Statement of RoHS and REACH Compliance – OFS Premises Cable Products

Application Note AN-977

Restriction of Hazardous Substances: European Union Directive 2002/95/EC (aka “RoHS”)

To the best of our knowledge, as well as that of our raw materials suppliers, all OFS Premises optical cable products are fully compliant with the following regulations, with no exemptions:

- European Union Restriction on Hazardous Substances (RoHS) Directive (EU Directive 2002/95/EC),
- California SB20/SB 50, with no exemptions.

The materials of construction used in these products do not deliberately include or contain any of the substances whose use is restricted by the regulations cited above.

RoHS Recast Directive: European Union Directive 2011/65/EU (aka “RoHS 2”)

In 2011, the European Union introduced the RoHS2 directive, EU Directive 2011/65/EU, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011L0065:EN:NOT>, commonly known as “RoHS 2”. Among other things, this directive requires manufacturers of Electrical and Electronic Equipment (“EEE”) sold in the EU to file a Declaration of Conformity and obtain authorization to mark EEE with the CE label. Optical fibers and optical cables are not dependent on electric currents or electromagnetic fields, and therefore are explicitly excluded from RoHS2 requirements (see Q5.1 and Q7.2, http://ec.europa.eu/environment/waste/rohs_eee/pdf/faq.pdf).

However, OFS recognizes that many customers use OFS Premises Optical Cable Products as components or subcomponents in EEE. Q7.3 of the RoHS2 FAQ, http://ec.europa.eu/environment/waste/rohs_eee/pdf/faq.pdf, states “... components being used in finished EEE or for repair or upgrade of used EEE, which is in the scope of RoHS 2 **must meet the substance restrictions according to Art. 4 but do not need CE marking.**”

To the best of our knowledge, as well of that of our suppliers, all OFS Premises optical cable products are fully compliant with the substance restrictions of Article 4 of EU Directive 2011/65/EU, with no exemptions. The materials of construction used in these products do not deliberately include or contain any of the substances whose use is restricted by EU

Additional Restricted Substances: Commission Delegated Directive (EU) 2015/863 (aka "RoHS 3" or "RoHS 10")

In 2015, the European Union introduced Directive 2015/863, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32015L0863>. This amended Annex II of the RoHS2 directive (2011/65/EU) to place restrictions on the use of four phthalate plasticizers in EEE, bringing the total of restricted substances to 10. The new restrictions shall be effective on 22 July 2019.

As noted in the section above, OFS optical cable products are exempt from RoHS2 CE labeling requirements. However, when used as components within EEE, OFS optical cable products must meet the substance restrictions of Directive (EU) 2015/863.

To the best of our knowledge, as well of that of our suppliers, all OFS Premises optical cable products are fully compliant with the substance restrictions of Directive (EU) 2015/863, with no exemptions. The materials of construction used in these products do not deliberately include or contain any of the substances whose use is restricted by Directive (EU) 2015/863.

REACH Substances of Very High Concern

The Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH) regulation came into force in the European Union on 1 June 2007. This regulation is administered by the European Chemical Agency (ECHA). Under the definitions of REACH, OFS Premises optical cable products are "complex objects", each made up of more than one "article". An "article" is defined as "*an object which during production is given a special shape, surface or design which determines its function to a greater degree than its chemical composition.*" As a supplier of articles, OFS is required to communicate if any of its products contain substances on the current Candidate List of substances of very high concern for Authorisation (SVHC), available online at: <https://echa.europa.eu/regulations/reach/candidate-list-substances-in-articles>.

To the best of our knowledge, as well of that of our suppliers, all OFS Premises optical cable products do not contain any materials on the current Candidate List of substances of very high concern for Authorisation above allowable thresholds. The materials of construction used in these products do not deliberately include or contain any of the substances on the current Candidate List.

BUFFERED FIBER: All OFS buffered fiber (*LGBF and MTBF products*)

BUFFERED FIBER CORDAGE: All OFS buffered fiber cordage, including single fiber and duplex cordage. (*9P and 9U products*)

BUFFERED FIBER FTTH CABLES: All OFS buffered fiber FTTH cables (*IO, IR and IT products*)

RIBBON CABLE: OFS AccuFlex+ ribbon cables (*ARRC and AFRR products*), OFS AccuRiser® indoor cable (*8FLX products*), OFS AccuRiser® RR indoor/outdoor cable (*8RIO products*).

DISTRIBUTION CABLE: All OFS ACCUMAX® (*LGBC*) and AccuDRY® (*LGIO*) distribution cables using buffered fiber.

BREAKOUT CABLE: All OFS MiniCord® Breakout Cable.

AccuPack™ CABLE: All OFS APBC and APIO AccuPack™ Interconnect Cables.

M-Pack™ INTERCONNECT CORDAGE and BACKBONE CABLE: All OFS M-Pack™ cables using OFS bare fiber(s). (*MP, MB and MO products*)