

ENGINEERING STANDARD

Restricted/Reportable Substances for Parts, Components, Subassemblies and Finished Products

Standard Number: CPR6M

Revision: B

Revision Date: 24 January 2017

Requirements:

- 1. RoHS Compliance:** The following parts and materials supplied to CreeLED, Inc. or one of its subsidiaries (collectively “Cree LED”) must comply with the EU RoHS directive 2011/65/EU, as may be amended or supplemented in the future (collectively “RoHS”), in effect at the time the parts or materials are supplied: (i) finished electrical and electronic equipment (EEE), (ii) components of EEE, and (iii) all parts and materials reasonably anticipated to be used by Cree LED in manufacturing EEE if all or any part thereof will remain in the finished EEE. If a supplier is uncertain whether any parts and/or materials supplied to Cree LED must comply with RoHS, it should contact the Cree LED buyer for verification.

RoHS compliance is met by one of the following conditions:

- The maximum concentrations found in Annex A below are not exceeded in a homogenous layer within the part or material supplied; or
 - A current exemption noted in Annex B applies to the part or material supplied.
- 2. Contract Manufacturers’ Obligations for RoHS Compliance:** If parts supplied to Cree LED are to be sold as Cree LED finished products, as listed on the Cree LED website or as communicated to the Supplier in the case of a new product, or are subassemblies for Cree LED finished products as communicated by Cree LED to Supplier, in addition to the parts being RoHS compliant at the time of shipment, the supplier, as a contract manufacturer for Cree LED, will take the following additional steps to ensure all parts provided are RoHS compliant:
 - Compile & maintain the required technical documentation, available to be audited;
 - Ensure internal production control procedures are in place for series production to remain in conformity;
 - Keep a register of non-conforming EEE and product recalls, and keep Cree LED informed thereof;
 - Ensure finished EEE or packaging bears a unique identification marking;

- e. Follow specific labeling requirements (when applicable);
- f. Inform Cree LED within two (2) business days if a part, material, product or subassembly that has been supplied to Cree LED is found not to comply with the RoHS compliance standards; and
- g. Take immediate corrective actions upon discovery of non-compliance; including, but not limited to the segregation and quarantine of non-compliant parts, materials, subassemblies or finished products.

Cree LED reserves the right to periodically confirm the RoHS compliance status of parts or materials supplied to Cree LED by requesting supporting RoHS information and documentation about the parts and materials supplied. The frequency of these information requests may be affected by changes in the restricted substance list(s), unusual test results from periodic part or material auditing, or routine semi-annual or annual update requests. The supplier will provide requested information within ten (10) business days.

Annex A – Maximum concentrations of restricted substances (by weight of homogenous layer):

EU RoHS Restricted Substances		
Lead & lead compounds	Effective 7/2004	1000 ppm or 0.1%
Mercury & mercury compounds	Effective 7/2004	1000 ppm or 0.1%
Hexavalent chromium	Effective 7/2004	1000 ppm or 0.1%
Cadmium & cadmium compounds	Effective 7/2004	100 ppm or 0.01%
Polybrominated biphenyls (PBBs)	Effective 7/2004	1000 ppm or 0.1%
Polybrominated diphenyl ethers (PBDEs)	Effective 7/2004	1000 ppm or 0.1%
Bis(2-ethylhexyl) phthalate (DEHP)	Effective 7/2019	1000 ppm or 0.1%
Butyl benzyl phthalate (BBP)	Effective 7/2019	1000 ppm or 0.1%
Dibutyl phthalate (DBP)	Effective 7/2019	1000 ppm or 0.1%
Diisobutyl phthalate (DIBP)	Effective 7/2019	1000 ppm or 0.1%

In the event that the RoHS compliance standard is amended, Annex A shall automatically be deemed modified to reflect any changes, including but not limited to any revision to the maximum concentration of an existing restricted substance, the addition of a new restricted substance along with the applicable maximum concentration, and/or the removal of an existing restricted substance.

Annex B – List of RoHS exempt uses:

Current EU RoHS exemption lists are available from the following URLs:

<http://export.gov/europeanunion/weeerohs/rohsinformation/index.asp>

http://ec.europa.eu/environment/waste/rohs_eee/adaptation_en.htm

Note: The supplier is responsible for reporting to Cree LED if a part or material complies with RoHS due to one or more of the listed exemptions. Prior to shipping to Cree LED (or its designee) parts or materials that comply solely by virtue of an exemption, the supplier will confirm that the exemption(s) claimed have not expired. .