

Environmental Product Compliance (EPC)-Specification for Materials and Products

Electronic Approvals

| Owner: | Director, Product Safety & Compliance | Document No: | COMM-PC-2001 |
|-----------|---------------------------------------|-----------------------|--------------|
| Approver: | VP, Quality | Revision Date: | 25 Nov 2020 |
| Approver: | VP, QA Engineering | | |
| Approver: | VP, Home Networks Quality | | |
| Approver: | VP, Chief Procurement Officer | | |
| Approver: | VP, Quality | | |
| Approver: | VP, & Deputy General Counsel | | |

1.0 Purpose

- 1.1 To specify CommScope's requirements for material compliance for raw materials, assemblies, and components purchased and used to manufacture CommScope products. Herein raw materials, assemblies, and components will be referred to as products in this specification.
- 1.2 To ensure all products purchased are compliant with global material compliance regulations.
- 1.3 To support continuous improvement through the product life cycle.

2.0 Scope

- 2.1 The following requirements detail the general material compliance specifications for all products purchased by CommScope. Additional requirements can be defined by other documents, including but not limited to, the purchase order.
- 2.2 The reporting and compliance requirements identified in this specification must be followed by all suppliers unless managed under a separate agreement with CommScope.
- 2.3 This specification lists substance restrictions covered by regulations in North America, Europe and, Asia Pacific and by some relevant industry standards. The table below is a non-exhaustive list of regulations referred for the restriction of substances in our CommScope's Restricted Substance List (RSL).

| Regulation Name | Reference |
|--|--|
| EU RoHS - Restriction of Hazardous Substances in EEE | Directive 2011/65/EU |
| China RoHS - Management Methods for Controlling Pollution by Electronic Information Products (Order # 39, 2006). | Ministry of Information Industry Order #39 |
| EU REACH - Registration, Evaluation, Authorization and Restriction of Chemicals | REACH (EC) 1907/2006 |
| TSCA - Toxic Substances Control Act | 15 U.S.C. §2601 et seq. (1976) |
| EU Batteries – Directive on Batteries and Accumulators | Directive 2006/66/EC |
| Proposition 65 - California Safe Drinking Water and Toxic Enforcement Act | CA Prop 65 |
| EU Packaging – Directive on Packaging and Packaging Waste | Directive 94/62/EC |
| EU Nanomaterials - Recommendation on the definition of Nanomaterial | 2011/696/EU |
| France Mineral Oil - French Law n° 2020-105 relating to the fight against waste and the circular economy – Art 112. | French Law on Mineral Oil - Art. 112 |
| EU POPS - Regulation on Persistent Organic Pollutants | Regulation (EU) 2019/1021 |



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3.0 Related Documentation, Quality System Forms, Data and Records

3.1 Related Documentation

| Number | Title |
|-----------------|---|
| COMM-PC-2001-01 | Product Compliance (PC) – Restricted Substance List |
| COMM-QM-1000 | Supplier Quality Manual |

3.2 Quality Systems Forms, Data, and Records

| Number | Title |
|-----------------|--|
| COMM-PC-3001-01 | Product Compliance (PC) –Supplier Risk Assessment Questionnaire – Form |

4.0 Responsibilities

4.1 CommScope

- 4.1.1 Ensure awareness and compliance to this specification.
- 4.1.2 Refer to this specification document in all relevant component specifications and/or contracts.

4.2 Suppliers

- 4.2.1 Comply with the substance requirements detailed in the RSL COMM-PC-2001-01, regardless of where the products are manufactured, intended to be sold, or used.
 - 4.2.1.1 Products purchased by CommScope shall not contain any of the "banned substances" listed in the RSL COMM-PC-2001-01.
 - 4.2.1.2 Products purchased by CommScope shall not contain any of the "restricted substances" listed in the RSL COMM-PC-2001-01 above the listed threshold level.
- 4.2.2 Ensure material content data reported are the worst case if more than one bill of material or production operation exists.
- 4.2.3 Comply with labeling, registration, communication, and other requirements determined by the regulations listed in paragraph 2.3 for all products supplied to CommScope.
- 4.2.4 Cascade the requirements in this specification to sub-tier suppliers. Their data input is required to complete material and substance data determination.
- 4.2.5 Notify CommScope of any changes to a product that could affect compliance status or material/substance content of the product.
- 4.2.6 Report restricted and declarable substances and certify the supplied products follow the requirements in this specification.
 - 4.2.6.1 Provide a full material content report (IPC1752A Declaration Class D). CommScope shall authorize the use of alternate formats to share information on materials in products. The suppliers' submission constitutes a testament all supplied products comply with these requirements and the information is true and correct to the best of the supplier's knowledge.
 - 4.2.6.2 Report all restricted and declarable substances with concentrations above the threshold level and in the scope of the regulated application(s) noted in the RSL COMM-PC-2001-01, as contained within each homogenous material.
 - 4.2.6.3 If Lab analysis is used to determine the composition of a homogeneous material, it shall be performed by an ISO/IEC 17025 accredited test laboratory. The lab shall follow international standards such as IEC 62321 to determine the levels of certain substances of concern in EEE.



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5.0 Definitions

| Term | Definition |
|-------------------------------|--|
| Assembly | A collection of components and materials not intended to be disassembled or cannot reasonably be disassembled by the end-user without the use of a specialized tool. Products are considered assemblies. |
| Banned Substance | A substance whose intentional use is not permitted in any quantity for all indicated applications. If a threshold value is indicated, it applies only to impurities (not intentionally added) and the amount of the impurity of the substance must be less than the threshold value. |
| CAS Number | A unique numerical identifier, assigned by The CAS Registry (a division of the American Chemical Society), for every chemical substance. |
| Contract Manufacturer | An external company that manufactures products based on CommScope's design. CommScope will predominantly determine suppliers, but some items the contract manufacturer will source. CommScope owns the product's intellectual property. |
| Declarable Substance | A substance currently not banned or restricted for use, but a ban or voluntary phase-out in the future is likely. A declarable substance may have an impact on the end-of-life management of the finished product. |
| EEE | Electrical and Electronic Equipment |
| Homogeneous Material | One material of uniform composition throughout a material, consisting of a combination of materials that cannot be disjointed or separated into different materials by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes. |
| Intentionally Added | Deliberately utilized in the formulation of a material or part where its continued presence is desired in the final product to provide a specific characteristic, appearance or quality. |
| Material | The substance or substances of which a product is made or composed. |
| Private Label Manufacturer | An external company that manufactures products CommScope sells under the CommScope label. The external company owns the design of the product and determines the supply chain. |
| Products | In this specification the term 'product' is used as a synonym for parts, assemblies, sub-assemblies, packaging, contract manufactured end item saleable products, private label products and/or, raw materials. |
| Raw Material | A basic material used to produce goods, finished products, energy, or components for future finished products. |
| REACH | Registration, Evaluation, Authorization and Restriction of Chemicals. Regulation (EC) No 1907/2006 of the European Parliament and of the Council. |
| Restricted Substance | A substance prohibited for intentional use unless explicitly exempted by a regulation or by CommScope. If a threshold value is indicated, it applies only to impurities (not intentionally added). The amount of the impurity must be less than the threshold value. |
| ROHS | Restriction of Hazardous Substances. Directive 2011/65/EU of the European Parliament and of the Council. |
| RSL | CommScope Restricted Substances List COMM-PC-2001-01 |
| Substance | A 'Substance' is a chemical element, compound, or polymer and has a CAS number. |
| Substance Concentration | Concentration shall be expressed in parts per million (ppm). |
| Supplier | The company selling or providing a raw material, assembly or part to CommScope. |

6.0 Process Overview

6.1 Data Verification and Acceptance Criteria

CommScope will assign a compliance status for products based on either the Full Material Content report or an alternative compliance declaration obtained from suppliers. This compliance status is used as an input to qualify products in CommScope's business system. Non-compliance to this specification and the related RSL will lead to disqualification of the related vendor part. CommScope requires all parts to meet the threshold levels as outlined in the RSL COMM-PC-2001-01 unless managed under a separate agreement with CommScope. CommScope is entitled to request an update of material declarations and other documentation from suppliers to ensure continued compliance with this specification.



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7.0 Revision History

| Release Date | DCR | Revisions |
|--------------|----------------------|--|
| 30 Apr 2015 | 040215-1 | New Global Corporate document |
| 14 Oct 2016 | 092616-2 | Updated section 4.0 Accountability and Coordinator(s) • Updated section 5.0 definition for EIP to EEP for China RoHS • Updated section 6.5 for regulatory changes to China RoHS including changes to hazardous substances table • Added 6.11.12 Fumigants and Biocides Used in Transport •Added 6.14 Resins • Added 6.15 Metals •Added Section 7.0 Flowchart 1: EEE RoHS Decision Tree for Cable |
| 20 Jul 2018 | 061818-3 | Added LCA statement under section 2.1 Created Procurement bullet and statement under Accountability section under 4.3 instead of 4.2.5 under Engineering. Divided one sentence into 2 clear statements. Updated approvers to remove Richard DallAsen, James DeCoe, Davy Brown Added Gordon Fraser, Dieter Verdegem, Geoff Sullivan |
| 25 Nov 2020 | 2020- 10-20-12:14 | Process Transformation: alignment of following L-Arris and L-COMM documents: Specification for Materials and Products – Procedure: CS-EPC-2001, ARRIS Controlled and Reportable Materials Disclosure 595329-001-d and ARRIS EU RoHS (Recast) Policy 590820-001-b. All engineering requirements from the Legacy CommScope document are removed from this document and are now covered in COMM-PC-3002. This document covers now only Supplier requirements. Added a table with regulations that make up the source for the restrictions in this document in paragraph 2.3. Harmonized the definitions in section 5. Reviewed and harmonized the Restricted Substance List COMM-PC-2001-01. Owner: Vinatha Viswanathan (Director, Product Safety & Compliance)/Approvers: Adam Silverstein (VP, Quality) • David Hoffman (VP, QA Engineering) • Doug Palmer (VP, Home Networks Quality) • Joe Palmeri (VP, Chief Procurement Officer) • Sharon Wood (VP, Quality) • William Pleasant (VP, & Deputy General Counsel) |