

SPECIAL CONDITION: Electronics

Version: SCElec/2023-07-20

BACKGROUND

Definition: Electronics include circuit boards, displays, and related wires and connectors (as defined in HPD Open Standard 1.0). Electronics comprising 10% or less of the product by weight are included in this Special Condition; if electronics comprise greater than 10% of the product by weight, they must be inventoried separately. The electronic components must be fully enclosed and sealed, there can be no possible exposure to the components during the use phase, and an end-of-life management plan must be reported.

Why is this a Special Condition: *A content inventory can be created in theory with current HPD methods, but it is not practical to do so and/or the value of trying to create a complete inventory is questionable.* Electronic parts often include hazardous materials. However, electronics are highly complex mixtures of materials and substances with a long and complicated supply chain, and they might comprise only a small part of the overall product. Inventorying them at the level expected for other contents may be difficult or impossible for a product manufacturer.

Scope: Electronics comprising 10% or less of the product by weight. If electronics comprise greater than 10% of the product by weight, they must be inventoried separately. Cases, housings, and other identifiable elements must be inventoried as a separate material on the HPD.

Required Data Reporting

The following are the data reporting requirements to be used under this Special Condition. All data reporting is optional, but lack of specific data points, as noted here, affects compliance with key indicators for the HPD [see 2.1.2.3 Characterized, Screened, Identified in the HPD Open Standard]:

- The following data is required to be provided for the content to be indicated as “Yes” for “Characterized” on the HPD report:
 - *Ingredient Description.* Enter a brief description of the component or part including its function.
- The following data is required to be provided for the content to be considered “Identified” on the HPD report:
 - *Material name.* Enter “Electronics”
 - *Identifier.* Enter “Electronic Component” when using this guidance.
 - *Ingredient Description.* Enter a brief description of the component or part including its function.
- The following data is required to be provided for the content to be considered “Screened” on the HPD report:

For all contents above the threshold, the manufacturer has:

Characterized Yes No
Provided weight and role

Screened Yes No
Provided screening results using HPDC-approved methods

Identified Yes No
Provided name and CAS RN or other identifier



- *Compliance.* User indicates the material is compliant with most recent EU RoHS directive without any exemption or fills in what exemption.
 - Why RoHS compliance, even if in North American Market?
 - Provides a standard for screening.
 - Has a reputation for rigor suitable to HPD standards
 - While not required for compliance in North America, it has a high global adoption rate.

Harmonization: This Special Condition has been harmonized with the following:

- International Living Future Institute, [Declare Manufacturer's Guide](#), May 2017 (“Small electrical components do not require CASRN reporting, but the manufacturer must verify that these components are RoHS compliant”, Page 6)
- Cradle to Cradle Certified, Externally Managed Component Assessment Methodology, November 2021. An electronic component or part can be considered an Externally Managed Component (EMC) if the supplier has indicated, to the best of their knowledge, that the electronic component or part “is enclosed and sealed such that product users and/or the environment do not come into contact with the internal materials and chemicals during intended use or likely unintended use.” An EMC “achiev[ing] all applicable requirements in this document may be counted towards the total percentage of the product that is assessed at all Cradle to Cradle Certified achievement levels,” Sections 1.3 and 1.1).

GUIDANCE/ INSTRUCTIONS:

Special Conditions instructions for specific data fields follow; ***if there are no instructions for a data field, the requirements of the HPD Open Standard should be followed.*** If the HPD Open Standard and Special Conditions instructions are followed, the HPD will not be barred from qualifying for the LEED v4 Material Disclosure and Optimization, Material Ingredients credit, Option 1.

*Data field auto-fills if using HPD Online Builder

HPD 2.1.1 Data Field	Special Condition Requirements
SECTION 1: SUMMARY	
Content in Descending Order of Quantity*	Materials and Substances must be listed by the Material Name if applicable and/ or Substance Name as instructed in Section 2.
Characterized Screened Identified*	“Yes” should be checked if all Standard requirements are met, and all reporting requirements are met below. See notes below where “No” should be marked for one or more indicators.



Inventory and Screening Notes*	<ul style="list-style-type: none"> ● Include the following notes: <ul style="list-style-type: none"> ○ “Special conditions applied: [Electronics].” 						
SECTION 2: CONTENT IN DESCENDING ORDER OF QUANTITY							
Materials – instructions apply only to Nested Materials Inventory format							
Material Name	Enter “Electronics”						
<p>Substances – instructions apply to both Nested Materials and Basic Inventory formats. These fields are customized to this Special Condition guidance. Fields unique to this Special Condition are marked below with a double asterisk**. This mockup shows a typical result of the following instructions:</p> <div style="border: 1px solid #ccc; padding: 10px;"> <p>ELECTRONIC ACTUATOR ID: Electronic Component</p> <hr/> <p>HAZARD DATA SOURCE: HPDC Special Conditions Policy</p> <p>%: 1.0000 - 2.0000 GreenScreen: Not Required RC: None NANO: No MATERIAL ROLE: Electronic component</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">HAZARD TYPE</th> <th style="width: 33%;">AGENCY AND LIST TITLES</th> <th style="width: 33%;">WARNINGS</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;">Hazard Screening is not applicable to this Special Condition</td> </tr> </tbody> </table> <p>INGREDIENT DESCRIPTION: An electronic actuator shuts off the water if movement isn't detected in 60 seconds.</p> <p>EU ROHS COMPLIANCE: Yes</p> <p>END-OF-LIFE MANAGEMENT: Third-Party Certified Takeback Program</p> <p>MATERIAL CONTENT NOTES:</p> </div>		HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS	Hazard Screening is not applicable to this Special Condition		
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS					
Hazard Screening is not applicable to this Special Condition							
Material Name	Enter component name or part name						
ID (Identifier):	Enter “Electronic Component”						
Hazard Data Source*	Enter “HPDC Special Conditions Policy.”						
GreenScreen*	Enter “Not Required.”						
Ingredient Description**	Enter a brief description of the component or part (including its function).						
Compliance**	<p>Indicate if the component or part is compliant with the most recent EU RoHS directive without any exemption or with [fill in] exemptions.</p> <p>Note: If component does not comply with most recent EU RoHS directives, then “No” must be selected for “Screened.”</p>						
End-of-Life Management**	<p>Selection of End-of-Life Management options:</p> <ol style="list-style-type: none"> 1. Standard Certified Takeback Program 						



	<ol style="list-style-type: none"> 2. Third-Party Certified Takeback Program 3. Government Approved Takeback Program 4. Internally Developed Company Take Back Program 5. Other (See Material Notes) 6. No End-of-Life Management Plan <p>An option must be selected to publish the HPD.</p>
Material Notes*	Add additional Takeback Program notes, if applicable.
Hazards and Agency(ies) with Warnings	Enter "Hazard Screening not performed"
SECTION 3: CERTIFICATIONS AND COMPLIANCE	
No changes to requirements for Special Conditions	
SECTION 4: ACCESSORIES	
No changes to requirements for Special Conditions	
SECTION 5: GENERAL NOTES	
No changes to requirements for Special Conditions	
SECTION 6: REFERENCES	
No changes to requirements for Special Conditions	

VERSION CONTROL

This document replaces SCElec/2022-07-11. It includes the following updates:

- Added rationale under RoHS compliance on why it is required for screening under the Electronics Special Condition.