

Section III — Assessing Products

17. PURPOSE

Section III describes the procedure for assessing a product. A product assessed using GreenScreen does not receive a single Benchmark score. Instead, each constituent or component present in a product above the disclosure and assessment thresholds specified in this section is assessed and receives a Benchmark score.

The product reporting requirements described in this section ensure transparency, facilitate informed comparisons between products, and enable organizations to integrate their priorities and values into the decision-making process.

For making product claims, GreenScreen Certified™ is an optional certification offered by Clean Production Action. See the Clean Production Action website for additional information on GreenScreen Certified (<https://www.greenscreenchemicals.org/certified>, accessed 9/15/17).

18. SCOPE

Three types of products are considered in this section:

- 1) Non-polymeric product:
 - a. Chemical substance – a single-component trade name product that contains two or more chemical compounds, and
 - b. Chemical mixture – a multi-component trade name product containing two or more chemical substances.
- 2) Polymeric material – a multi-component trade name product that contains one or more polymer substance(s) or polymer mixture(s) in addition to functional additives. Examples of polymeric materials include compounded plastics, adhesives, foams, and resins.
- 3) Variable product types include the following. They can contain one or more non-polymeric or polymeric components:
 - a. Homogeneous material
 - b. Article

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19. ASSESSMENT AND DISCLOSURE THRESHOLDS: NON-POLYMERIC PRODUCTS

19.1 Chemical Substances

- 19.1.1 Each intentionally added chemical compound in the chemical substance present at greater than 0 ppm (0%) must be assessed per Section I.
- 19.1.2 Each impurity present at greater than or equal to 100 ppm (0.01%) in the chemical substance must be assessed per Section I.
- 19.1.3 Each special case impurity present below 100 ppm (0.01%) must be screened using the GreenScreen List Translator following the procedure in Section IV.
- 19.1.4 It is best practice (but not mandatory) to provide the identity and CASRN of all known impurities present below 100 ppm and to screen them using the GreenScreen List Translator (See Section IV).

19.2 Chemical Mixtures

A chemical mixture contains two or more chemical substances as components, and those chemical substances must be assessed according to 19.1 above.

20. ASSESSMENT AND DISCLOSURE THRESHOLDS: POLYMERIC MATERIALS

- 20.1 Each polymer substance or polymer mixture > 0 ppm must be assessed per Section II.
- 20.2 Each intentionally added chemical substance (functional additive) present at > 0 ppm must be assessed according to sub-section 19.1.
- 20.3 Each intentionally added chemical mixture (functional additive) present at > 0 ppm must be assessed according to sub-section 19.2.
- 20.4 Polymeric Material Impurities (impurities imparted to the polymeric material from a source other than the intentionally added components):
 - 20.4.1 Each impurity present at greater than or equal to 100 ppm (0.01%) in the polymeric material must be assessed per Section I.
 - 20.4.2 Each special case impurity present below 100 ppm (0.01%) in the polymeric material must be screened using GreenScreen List Translator following the procedure in Section IV.
 - 20.4.3 It is best practice (but not mandatory) to provide the identity and CASRN of all known impurities present below 100 ppm and to screen them using the GreenScreen List Translator. (See Section IV).

21. GUIDANCE FOR ALL PRODUCT TYPES

- 21.1 If there are undisclosed, unknown, or proprietary constituents and/or components, seek additional information. The following approaches are suggested:
 - 21.1.1 Seek information on the identity of constituents or components from the next supplier upstream; or
 - 21.1.2 Ask the next supplier upstream to conduct their own GreenScreen assessment and report results; or

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- 21.1.3 Ask the next supplier upstream to screen the constituents and/or components using GreenScreen List Translator and report the results; or
- 21.1.4 List all unknowns as “Not Reported” with concentrations in parent product.
- 21.2** Where > 0 ppm (0%) or 100 ppm (0.01%) is not feasible or practicable (i.e., supply chain will not/cannot disclose all chemicals), a value of 1000 ppm (0.1%) may be used.
- 21.2.1 Where GreenScreen disclosure and assessment requirements are not applied and a different disclosure level is used, it is mandatory that the disclosure level be provided, as well as the reasoning, in the assessment report for every intentionally added constituent or component. This will allow for the equivalent comparison of alternatives.
- 21.2.2 Referencing GreenScreen in other standards or metrics must specify the disclosure level applied (both for intentionally added constituents or components and impurities).

22. PRODUCT REPORTING TEMPLATE

22.1 General Template Guidelines

- 22.1.1 GreenScreen Benchmark Summary Section:
 - 1) Ensure the product template meets the general requirements in sub-sections 3 and 4 of this document.
 - 2) The product does not receive a single Benchmark score.
 - 3) Report product components and constituents at exact concentrations (include trade name, chemical name and CASRN). If this is not feasible (e.g., due to confidentiality reasons), report concentration ranges.
 - 4) Denote any product input as “Not Reported (NR)” in the Benchmark summary section of the template if it is unable to be assessed because a supplier will not provide formulation data.
 - 5) Report the percent (%) of the product at each Benchmark score.
- 22.1.2 Inventory Thresholds Section:
 - 1) List the product inventory thresholds achieved and any deviations from GreenScreen requirements in this section of the product template.
 - 2) For the product inventory, the assessor must provide a description of the method used to determine compliance with the inventory thresholds (i.e., analytical testing, supplier attestations, and/or supply chain research). If analytical testing is used, it is recommended to include test method and detection limit.

22.2 Template 4 – Product Assessment Reporting Template

- 22.2.1 Follow the general template guidelines listed above in sub-section 22.1.
- 22.2.2 Clearly indicate the manufacturer and trade name of the product evaluated and the product inventory in Table 1 of Template 4.
- 22.2.3 Report scores for Special Case Impurities in Table 2 of Template 4. See Figure 6 below. If other known impurities present below 100 ppm in the product were assessed, report the scores in Table 2 as well.
- 22.2.4 Ensure all sections of Template 4 are filled in. Attach a separate assessment report for each chemical compound, polymer substance, and/or polymer mixture assessed in the product.

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FIGURE 6. Example Template 4 Report for an Uncured Polymeric Material

(All information in this example is for illustration purposes only)

GREENSCREEN BENCHMARK™ SUMMARY

This product assessment report includes a GreenScreen Benchmark™ score and attached individual assessment reports for the product inventory listed in Table 1 and any impurities in Table 2 below.

The product itself has not been assigned a single Benchmark score. No product claims can be made without licensing through Clean Production Action.

Table 1. Product Benchmark Summary

| Product Component(s) | Chemical Name | Trade Name or CASRN | % by weight in product | Benchmark Score | Assessment Report Number |
|----------------------|---------------|----------------------------|------------------------|-----------------|--------------------------|
| Polymer Mixture | Various | EZ-Clean Paint, #EZ-50-BLK | 85 | 1 | GSA-23 |
| Solvent | Chemical A | 42123-45-8 | 1 | 2 | GSA-43 |
| Pigment | Chemical B | 6472-81-2 | 8 | 3 | GSA-876 |
| | Chemical C | 2976-34-2 | 6 | 4 | GSA-88 |

Table 2. Impurities < 100 ppm: Special Case and Known

| Chemical Name | CASRN | (ppm) | GreenScreen List Translator score | Function | Reason for Inclusion |
|---------------|----------|-------|-----------------------------------|----------|-----------------------|
| Impurity 1 | 135-49-2 | 50 | LT-UNK | Impurity | Special Case Impurity |

Table 3. Weight Percentage of Product at Each Benchmark Score

| 1 | 2 | 3 | 4 |
|-----|----|----|----|
| 85% | 1% | 8% | 6% |

PRODUCT FUNCTIONAL USE(S)

- 1) Paint
- 2) Coating

INVENTORY THRESHOLD

Inventory thresholds achieved and any deviations from GreenScreen requirements:
100 ppm (no deviation from v1.4 guidance)

Methods used to determine compliance with inventory thresholds:
Analytical testing (detection and quantification using HPLC; limit of detection 2.0 ppm)