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Joint Committee on Sustainability Program Document for Architectural Coatings

May 19, 2025

Proposed revision to NSF/ANSI 498 – Sustainability Program Document for Architectural Coatings (498i7r1)

Revision 1 of NSF/ANSI 498, issue 7, is being forwarded to the Joint Committee for consideration. Please review the proposal and **submit your ballot by June 9, 2025** via the NSF Online Workspace.

Please review all ballot materials. When adding comments, please include the section number applicable to your comment and add all comments under one comment number whenever possible. If you need additional space, please use the attached blank comment template in the reference documents and upload online via the browse function.

Purpose

The proposed revision will update Sections 9, 10, and 11.

Background

A straw ballot was conducted in May 2024 to collect comments on NSF/ANSI 498: 2023. Numerous JC meetings were held to review each comment. This ballot and a few others are the outcome of those discussions.

If you have any questions about the technical content of the ballot, you may contact me in care of:

Ralph Paroli, Chair, Joint Committee on Sustainability Program Document for Architectural Coatings
c/o Rachel Brooker Joint Committee Secretariat
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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by grey highlighting. Rationale Statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard
for Sustainability–

Sustainability Program Document for Architectural Coatings

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9 Low impact materials (18 points plus 1 optional extra credit point)

As is the case with any sustainability standard, this standard aims to reduce the paints and coatings industry's impact on the natural environment. This section in particular is focused on doing so through the use and implementation of low-impact materials. These materials consist of a variety of alternatives with lesser environmental impact than those originally used in the industry. Some examples include use of bio-based materials which can be renewed sustainably without depleting the environment of additional resources, use of recycled content which reduces the need for additional material mining and extraction, and use of minimal product packaging, ~~specially~~ specialty single-use packaging, to help reduce the amount of waste generated by our industry.

9.1 Bio-based materials use

~~The USDA defines a *bio-based product* as "a product that is composed, in whole or in significant part, of biological products, including renewable domestic agricultural materials, renewable chemicals, and forestry materials… Bio-based products are derived from raw materials such as plants and other renewable agricultural, marine, and forestry materials. Biobased products generally provide an alternative to conventional petroleum derived products."~~[1] The purpose of this Section is to allow manufacturers to receive credit for using renewable resources such as bio-based materials as a potential means to reduce environmental impact. In order to receive credit for this section, a manufacturer shall use one of the three testing options listed in Sections 9.1.1, 9.1.2, or 9.1.3 to show compliance to the table listed below.

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9.1.1 ~~A~~ The product shall be tested and certified under ASTM D6866-20.**Error! Bookmark not defined.**

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[1] <www.biopreferred.gov/BioPreferred/faces/pages/AboutBioPreferred.xhtml>

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9.2 Recycled content use

Similar to bio-based material use, the use of responsibly sourced recycled content helps to reduce the need for additional, nonrenewable extraction of raw materials from the natural environment. In order to receive credit for this section, a manufacturer shall be able to supply certification from their raw material supplier(s) to verify the product's recycled content. Chemically recycled content shall be awarded credit(s) at 100% of the values listed here. ~~Postconsumer~~ Post-consumer recycled content shall be awarded credit(s) at 100% of the values listed here. ~~Preconsumer~~ Pre-consumer recycled content shall be awarded credit(s) at 50% of the values listed below.

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9.3 ~~Low impact suppliers~~ Supply chain transparency

~~The use of low-impact material~~ sSuppliers help~~s~~ ~~to~~ ensure not only the sustainability of the paints and coatings themselves,but the overall sustainability of the industry's supply chain. A number of different metrics can be used to determine a supplier's environmental impact, including water usage, energy use, carbon footprint, waste reduction measures, and disposal strategies.

~~For this section, the coating manufacturer shall first establish a program to determine the environmental impact of their raw material suppliers. In order to qualify for this credit, that program shall disclose to the coating manufacturer a supplier's water use, energy use, carbon footprint, waste reduction and discard, at the least.~~

To qualify for these credits, coating manufacturers shall develop a program that collects information about a supplier's water use, energy use, carbon footprint, waste reduction and disposal, for the product certified to this standard. Additional credit can be earned as described throughout this standard for suppliers willing to disclose additional information to the coating manufacturer, such as their use of low-impact materials, participation in industry sustainability programs, etc. Updated supplier information shall be submitted with recertification.

Achievement level	Achievement requirement	Supporting references
prerequisite	N/A	
1 point	~~Coating manufacturer receives / has on file environmental impact data from, at least, 50% by volume of the formulation of all raw material suppliers.~~ Coating manufacturer has developed a program to evaluate the environmental impact of its suppliers.	
1 point	~~Coating manufacturer receives / has on file environmental impact data from, at least, 75% by volume of the formulation of all raw material suppliers.~~ Coating manufacturer receives / has on file environmental impact data from suppliers that provide 50% of raw material, by volume.	

Achievement level	Achievement requirement	Supporting references
1 point	~~Coating manufacturer receives / has on file environmental impact data from, at least, 100% by volume of the formulation of all raw material suppliers.~~ Coating manufacturer receives / has on file environmental impact data from suppliers that provide 75% of raw material, by volume.	
1 point	Coating manufacturer receives / has on file environmental impact data from suppliers that provide 100% of raw material, by volume.	
NOTE — Points are cumulative.		

~~9.4 Product packaging~~

~~A manufacturer's choice of product packaging is another important component when considering a product's overall environmental impact. Responsibly sourced recycled packaging materials and the elimination of single-use packaging have been shown to support sustainability and reduce the need for additional resource consumption.~~

~~Achievement level~~	~~Achievement requirement~~	~~Supporting references~~
~~prerequisite~~	~~N/A~~	
~~1 point~~	~~Coating manufacturer is able to demonstrate a reduction of single-use packaging and priority single-use for the products of at least 5%.~~	
~~1 point~~	~~Coating manufacturer is able to demonstrate a reduction of single-use packaging and priority single-use for the products of at least 20%~~	
~~1 point~~	~~Coating manufacturer is able to demonstrate a reduction of single-use packaging and priority single-use for the products of at least 35%.~~	
~~1 extra credit available~~	~~Coating manufacturer is able to demonstrate that all single-use packaging and priority single use for the products are is recyclable or compostable.~~	
~~NOTE — Points are cumulative.~~		

9.5 End-of-life product stewardship

~~End-of-life product stewardship has become expected when considering sustainable options for any coating project. In order to reduce the amount of paint going to landfills through household hazardous waste (HHW) facilities, coating manufacturers and industry representatives have established end-of-life product stewardship programs. In addition to reducing waste, these programs help recycle paint that is able to be reused or reworked rather than disposed of.~~

~~"PaintCare is a program of the American Coatings Association (ACA), a membership-based trade association of the paint manufacturing industry. Working through the Paint Producer Stewardship Initiative (PPSI) facilitated by the Product Stewardship Institute (PSI), ACA supported the passage of the first U.S. paint stewardship law in Oregon and established PaintCare in 2009... After successfully demonstrating that the industry can design and deliver a program for post-consumer paint management, the Oregon program became permanent through new legislation in 2013... [Similar laws have passed in a number of additional states since.] In parts of the United States where PaintCare operates, we encourage households, businesses, and individuals to take their unwanted, leftover paint to a PaintCare drop-off site. There it is sorted and managed for reuse, recycling, energy recovery, or safe disposal."[2] This is just one example of an acceptable extended producer responsibility program.~~

End-of-life management and waste reduction are important considerations for coatings products, whether latex or solvent-based products. Paints and coatings are liquid formulated products and appropriate end-of-life management practices can be confusing and difficult for end users, whether they are consumers or commercial users. Disposition options may vary in different geographic regions depending on the robustness and availability of local programs. Since manufacturers typically do not control the product at its end-of-life, the best way to encourage responsible management is to educate consumers about proper end-of-life management and waste reduction through label language, website messages, and other customer communications.

Achievement level	Achievement requirement	Supporting references
~~1 point~~ prerequisite	~~Coating manufacturer implements an end-of-life product stewardship program for 5% of its product lines.~~ N/A	
1 point	~~Coating manufacturer implements an end-of-life product stewardship program for 20% of its product lines.~~ Manufacturers include language on the label which instructs end users on appropriate end-of-life management and waste reduction.	
1 point	~~Coating manufacturer implements an end-of-life product stewardship program for 35% of its product lines.~~ Manufacturers provide additional information on end-of-life management for leftover paint products and waste reduction on their company's website.	
NOTE — Points are cumulative.		

[2] <www.paintcare.org>

9.6 ~~Regionally sourced products~~

~~Materials that can be sourced near a manufacturing facility are themselves, low-impact materials. The closer a supplier is to a customer; the less energy will be used transporting the raw materials. This frequently lowers the cost of the material but also the carbon emissions required to transport the material. This, in turn, lowers the overall carbon footprint of the product itself.~~

~~Achievement level~~	~~Achievement requirement~~	~~Supporting references~~
~~prerequisite~~	~~N/A~~	
~~1 point~~	~~Coating manufacturer sources all raw materials for the product within 500 mi.~~	
~~1 point~~	~~Coating manufacturer implements sources all raw materials for the product within 250 mi.~~	
~~1 point~~	~~Coating manufacturer implements sources all raw materials for the product within 100 mi.~~	
~~NOTE — Points are cumulative.~~		

10 Chemical stewardship (13 points plus 5 optional extra credit points)

This section pertains to adopting ~~company chemical management policies~~ product-specific policies to reduce potential health, safety and environmental risks associated with new products, existing products, and the manufacturing value chain. Additionally, it also considers product-level chemical disclosures ~~and/~~or assessments for the product(s) being certified.

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10.1.1 Prerequisite

Create public disclosure for products being assessed under this standard that use any of the following programs to demonstrate the chemical inventory of the product to at least 0.1% (1,000 ppm):

— **manufacturer inventory**: The manufacturer has published a complete content inventory for the product following these guidelines:

— a publicly available inventory of all ingredients identified by name and Chemical Abstract Service Registration Number (CASRN) ~~and/~~or European Community Number (EC Number); and

— materials defined as trade secret or intellectual property may withhold the name ~~and/~~or CASRN/EC Number but shall disclose ingredient / chemical role, amount, and hazard score / class using either:

— Greenscreen List Translator (LT) score ~~and/~~or Full GreenScreen Benchmark (BM); and

— The Globally Harmonized System of Classification and Labeling of Chemicals rev.6 (2015) (GHS):

— the hazard screen shall be applied to each trade secret ingredient and the inventory lists the hazard category for each of the health hazards included in Part 3 of GHS (e.g., GHS Category 2 Carcinogen).

— **health product declaration**: The end use product has a published and complete Health Product Declaration with full disclosure of known hazards in compliance with the Health Product Declaration open standard;

— **cradle-to-cradle**: Product has Material Health Certificate or is Cradle-to-Cradle Certified™ under standard version 3 or later with a Material Health achievement level at the Bronze level or higher;

— **declare**: The Declare product label shall meet the following requirements:

— Declare labels designated as Red List Free or Declared; and

— Declare labels designated as LBC Compliant that demonstrate content inventory to 0.1% (1,000 ppm).

— **Living Product Challenge**: The included Declare product label shall demonstrate content inventory to 0.1% (1,000 ppm);

— ~~**Product Lens Certification**;~~ and

— **USGBC approved program**: Other USGBC approved programs meeting the material ingredient reporting criteria.

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10.2.4 Externally validated product declaration to at least 0.1% (1000 ppm) under any of the above-named programs and a chemical action plan meeting the below requirements under active LEED ~~v4.1~~**Error! Bookmark not defined.**:

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10.3 Key chemical and risk policies

Achievement level	Achievement requirement	Supporting references
prerequisite	compliance with ~~all federal and state laws~~ all applicable laws and regulations promulgated by authorities having jurisdiction	
NOTE — Points are cumulative.		

Document ~~corporate programs to comply~~ product safety compliance with ~~key federal and state~~ all applicable laws and regulations promulgated by authorities having jurisdiction regarding chemical safety, risk and hazard communication requirements:

— meet all applicable ~~federal and state~~ laws and regulations promulgated by authorities having jurisdiction regarding hazard communication standards;

— follow all product labelling and packaging standards such as FHSA, CPSA, PPPA, OSHA Haz Com, P65, FIFRA;

— compliance with all applicable chemical content standards such as TSCA, VOC, etc.;

— compliance with all hazardous material packaging and transportation requirements.

10.4 Chemical management plan

Achievement level	Achievement requirement	Supporting references
prerequisite	compliance with ~~federal and state~~ all applicable laws and regulations promulgated by authorities having jurisdiction regarding labelling ~~laws~~	
1 point	development and disclosure of a company-wide Chemicals Management Policy	
1 point	partial implementation of policy	
1 point	full implementation of policy	
1 point	program externally audited	
NOTE — Points are cumulative.		

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10.6 Targeted chemical elimination

Achievement level	Achievement requirement	Supporting references
prerequisite	N/A	
~~1 point~~	~~development and disclosure of policy~~	
1-2 points (max 2 points allowed)	chemical elimination	
~~NOTE — Points are cumulative.~~ There is a maximum of 2 points allowed for chemical elimination.		

10.6.1 Development and documentation of ~~policy~~ program

~~Develop, implement, and demonstrate improvement in a written targeted chemical elimination program. As an alternative showing evidence that chemicals were chosen based upon a better performing profile, based on a comparative hazard assessment of alternatives, and equal or better life cycle impacts.~~

Have an established written targeted chemical elimination program. The program shall ensure that chemicals identified for elimination in the targeted chemical elimination program are not

intentionally added. If unintentionally present (as an impurity), they shall not be at a concentration of 0.1% or greater. Please see informative annex 1 for examples of regulatory programs/lists for targeted chemical elimination.

10.6.2 Chemical elimination

~~The implementation of a targeted chemical elimination program that defines the products under review and the targeted chemical hazard elimination benchmarks for the program should be made publicly available. Credit may be awarded based on an audited internal company program or based on a company's participation in a qualified external program (e.g., chemical action plans under active LEED 4.1~~ ~~**Error! Bookmark not defined.**~~ ~~):~~

~~— **partial credit**: at least 80% of the bases products by volume in one product line that is covered by this sustainability program / standard are reformulated to remove at least one eligible chemical in the 5-y window beginning in 2016;~~

~~— **full credit**: at least 80% of the bases products by volume in three or more product line that is covered by this sustainability program / standard are reformulated to remove at least one eligible chemical in the 5-y window beginning in 2016; and~~

~~— additional credit shall be awarded if multiple chemicals are removed from a product line.~~[3]

~~NOTE — Chemicals identified for elimination in Tier 2 must be selected from the following lists and should not be intentionally added. If unintentionally present (as an impurity), they must not be at a concentration of 0.1% or greater.~~

Credit shall be awarded based on the company's written targeted chemical elimination program:

— **1pt**: at least 80% of the bases by volume or standalone products in one product line that is covered by this sustainability standard are reformulated to remove at least one eligible chemical within the prior 3 years

— **2pt (total)**: at least 80% of the bases by volume or standalone products in three or more product line that is covered by this sustainability standard are reformulated to remove at least one eligible chemical within the prior 3 years

~~10.6.2.1 United States~~

~~— NTP *Report on Carcinogens – Known or Reasonably Anticipated Human Carcinogens*;~~ ~~**Error! Bookmark not defined.**~~ ~~and~~

~~— 29 C.F.R. 1926, Subpart Z.~~ ~~**Error! Bookmark not defined.**~~

~~10.6.2.2 European Union~~

[3] Definition of a product line: a product line is defined as a set of interior or exterior architectural paint products. A product line generally consists of multiple types of bases (e.g., flat, semi-gloss, extra-white, gloss) sold under a common brand name.

- ~~REACh authorization list;~~
- ~~REACh SVHC candidate list for authorization;~~
- ~~CLP Annex VI – chemicals classified as:~~
  - ~~carcinogen-1;~~
  - ~~mutagen-1;~~
  - ~~toxic to reproduction-1;~~
  - ~~respiratory sensitizers;~~
  - ~~acute toxicity via oral, dermal or inhalation-1, -2, or -3;~~
  - ~~specific target organ toxicity (SE or RE)-1;~~
  - ~~PBT, vPvB; and~~
  - ~~PMT, vPvM.~~
- ~~classified as ED on the EU endocrine disruptor assessment list.~~

~~10.6.2.3 Canada~~

- ~~substances classified under the Hazardous Product Act as:~~
  - ~~carcinogen-1;~~
  - ~~mutagen-1;~~
  - ~~toxic to reproduction-1;~~
  - ~~respiratory sensitizers;~~
  - ~~acute toxicity via oral, dermal or inhalation-1, -2, or -3; and~~
  - ~~specific target organ toxicity (SE or RE)-1.~~
- ~~CEPA Virtual Elimination List.[4]~~

~~10.6.2.4 International~~

- ~~Stockholm Convention: substances listed on Annex A, B or C of the Convention;~~ ~~Error! Bookmark not defined.~~
- ~~Montreal Protocol: substances listed in Annexes A through F of the Protocol;~~ ~~Error! Bookmark not defined.~~ ~~and~~
- ~~Rotterdam Convention: substances listed in Annex III of the Convention.~~ ~~Error! Bookmark not defined.~~

10.6.3 New product development

One point will be awarded for any new product developed three years prior to the current audit that complied with the targeted chemical elimination program.

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[4] <https://laws-lois.justice.gc.ca/PDF/SOR-2006-298.pdf>

11 Safety (~~11~~ 10 points)

11.1 Employee health and safety

Sustainability, safety, and social aspects are the pillars of this standard. The health and safety of workers is a critical component of both the social and safety pillars that then allow for the achievement of the third pillar, sustainability. This section of the sustainability program pertains to adopting company health and safety policies to track and reduce worker injuries. Please refer to introduction, purpose, scope and definitions for more details.

Achievement level	Achievement requirement	Supporting references
prerequisite	tracking and reduction of injury rate(s)	
~~1 point~~	~~partial implementation of program policy~~	
1 point	~~full~~ implementation of program policy ~~(add the point from partial implementation as well)~~	
2 points	injury rate reduction	
2 points	employee wellness	
2 points	ergonomics program	
2 points	contractor program	
1 point	ACA Safety Award	
NOTE — Points are cumulative.		

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11.1.2 Policy

The policy shall include a review of the company's existing employee health and safety practices and procedures for data collection and analysis and for record maintenance. The policy shall require periodical analysis of facility statistics against historical data as well as industry statistics to identify significant patterns and trends. Document that an employee health and safety program has been implemented and demonstrate through an MOC process that appropriate health and safety issues are raised and addressed by development team at each stage of the process as products and process modifications / improvements are proposed, tested, developed and adopted.

~~**11.1.2.1 Partial implementation of the policy**~~

~~Document that an employee health and safety program has been implemented and demonstrate through an MOC process that appropriate health and safety issues are raised and addressed by development team at each stage of the process as products and process modifications / improvements are proposed, tested, developed and adopted.~~

~~**11.1.2.2 Full implementation of the policy**~~

~~Implement an employee health and safety program that goes beyond what is required by federal and state regulations and make the program publicly available.~~

~~NOTE The following tiers do not have to be done in order.~~

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Informative Annex 1

Sources for chemical elimination

The information contained in this annex is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. Therefore, this annex may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to this standard.

I-1.1 United States

— NTP *Report on Carcinogens – Known or Reasonably Anticipated Human Carcinogens*;**Error! Bookmark not defined.** and

— 29 C.F.R. 1926, Subpart Z.**Error! Bookmark not defined.**

I-1.2 European Union

— REACh authorization list;
— REACh SVHC candidate list for authorization;
— CLP Annex VI – chemicals classified as:

  — carcinogen-1;
  — mutagen-1;
  — toxic to reproduction-1;
  — respiratory sensitizers;
  — acute toxicity via oral, dermal or inhalation-1, -2, or -3;
  — specific target organ toxicity (SE or RE)-1;
  — PBT, vPvB; and
  — PMT, vPvM.

— classified as ED on the EU endocrine disruptor assessment list.

I-1.3 Canada

— substances classified under the Hazardous Product Act as:

  — carcinogen-1;
  — mutagen-1;

- toxic to reproduction-1;
- respiratory sensitizers;
- acute toxicity via oral, dermal or inhalation-1, -2, or -3; and
- specific target organ toxicity (SE or RE)-1.

- CEPA Virtual Elimination List.[5]

I-1.4 International

- Stockholm Convention: substances listed on Annex A, B or C of the Convention;**Error! Bookmark not defined.**
- Montreal Protocol: substances listed in Annexes A through F of the Protocol;**Error! Bookmark not defined.** and
- Rotterdam Convention: substances listed in Annex III of the Convention.**Error! Bookmark not defined.**

[5] <https://laws-lois.justice.gc.ca/PDF/SOR-2006-298.pdf>