



Criteria for Qualifying Safer Cleaner Certification Programs v1.2

November 2022

ChemWorks

Safer Chemistry for Workers and the World

[Registry of Safer Cleaners](#) [Suppliers: Get Started Here](#) [About](#)

**SAFER CLEANERS & DEGREASERS
FOR ALL**

About ChemWorks

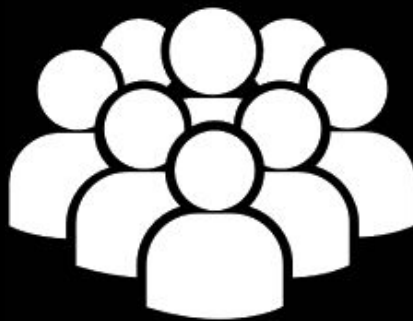
ChemWorks is a collaboration of brands, NGOs and certification programs working to scale the availability and accelerate the adoption of safer cleaners that protect workers and the environment. ChemWorks is managed by an advisory group of leadership brands and staffed by the non-profit organization, ChemFORWARD.

Refine once website text is complete; identify roles and responsibilities and link to Electronics co-design members serving as ChemWorks advisors when ready

Impact



Highest use
materials



>80,000
Apple supply chain
workers¹.



Eliminate worker
exposure to toxic
chemicals in
electronics
manufacturing

Goals

- Enable global leadership in the utilization of safer cleaners in the manufacturing of electronics
- Quickly and efficiently identify and verify safer formulations
- Scale the availability of of safer cleaners and degreasers
- Initiate a paradigm shift in supplier/buyer interactions
- Amplify safer alternatives for adoption by all brands

Definitions

- **Safer cleaner assessment program** - a program that includes the method as developed, implemented, and managed for evaluating cleaning products used in electronics
 - **Assessment program owner** - the owner and manager of the safer cleaner assessment program
- **Method criteria** - technical criteria used to evaluate hazards profiles associated with individual chemicals and formulations
 - **Chemical hazard assessment (CHA)** - a hazard assessment performed on an individual chemical that includes hazard classification across a suite of hazard endpoints
- **Service provider** - professionals who serve as approved chemical hazard assessors and product evaluators

Principles

- **Transparent** - Criteria for ingredient disclosure, hazard evaluation, and scoring, as well as the identity of, and requirements for, qualifying assessors should be fully transparent
- **Scientifically robust** - Criteria used to assess cleaners should be based on best practices in chemical hazard assessment
- **Protective of workers and the environment** - Criteria used to assess cleaners should take into account how the cleaners are used and protect workers from exposure to toxic substances
- **Meet or exceed minimum technical criteria** - Criteria used to assess cleaners must meet or exceed minimum requirements
- **Inclusive of multiple qualified programs (equivalency)** - Cleaner assessment programs do not need to be identical to be acceptable, as long as they meet or exceed the minimum technical requirements
- **Independent** - Programs and assessors should be free from conflicts of interest

Safer cleaner assessment program

Development and oversight requirements

1. Criteria/method guidance is freely and publicly available
2. The method has undergone peer review
3. The method allows for use by multiple service providers
 - If there are multiple service providers, then there is a way to validate results and assure consistency
4. The information is auditable and CHAs can be challenged
5. The method provider demonstrates proficiency by undergoing a pilot with ChemWorks on a model cleaner formulation

Safer cleaner assessment program

Disclosure Requirements

Cleaning formulation disclosure requirements must include at a MINIMUM

- a. All intentionally added chemicals at any concentration
- b. Residuals/impurities at or above 100 ppm*

*Note that there are jurisdictions certain chemicals are restricted to lower than 100 ppm (i.e. 1,4-dioxane).

Safer cleaner assessment program

Restricted Substances List Criteria

1. Method criteria exclude substances on the following restricted substances lists:
 - a. Apple Regulated Substances Specification (RSS) Section 6 - [LINK](#)
 - b. CEPN Priority Chemicals - [LINK](#)
 - c. GreenScreen Certified (™) for Cleaners and Degreasers - [LINK](#)

1. Method must specify in the RSL whether the chemicals are restricted from use (including maximum allowable concentrations if relevant), and if testing is required

Safer cleaner assessment program

Minimum Hazard Assessment Criteria

1. CHAs are based on a MINIMUM comprehensive set of hazard endpoints including all those in GHS plus persistence, bioaccumulation potential, and endocrine disruption
2. Method meets MINIMUM hazard requirements as presented in Exhibit 7 ([OECD, 2021](#))¹
 - a. Excludes products with chemicals that are classified as “High” concern based on GHS criteria for Carcinogenicity, Germ Cell Mutagenicity, Reproductive/Developmental Toxicity, PBT, and vPvB.
3. Chemical ratings must be based on full CHAs or appropriate positive list (i.e. US EPA SCIL) proxies;
 - a. The lack of presence of a chemical on a high hazard list is not sufficient for that chemical to be considered safer.
4. Certain hazards may be addressed at the formulation level (i.e., acute mammalian toxicity, irritation, flammability, skin sensitization); the other hazards must be addressed at the ingredient level (i.e. carcinogenicity, respiratory sensitization, mutagenicity, reproductive and development toxicity, endocrine disruption).

(1) OECD. 2021. Guidance on Key Considerations for the Identification and Selection of Safer Chemical Alternatives. OECD Series on Risk Management, No. 60, Environment, Health and Safety, Environment Directorate, OECD. [LINK](#)

Programs must have requirements for qualified service providers

1. **Assessment program owners should require that service providers meet, and maintain, all of the MINIMUM requirements:**
 - a. Are toxicology **firms** with the appropriate expertise including chemistry, human toxicology, environmental toxicology and fate. Individual toxicologists may not become assessors.
 - b. Comply with the following business practices: maintain current business registration, demonstrate ability to protect confidential business information, carry insurance policies (general liability and errors and omissions), and have a conflict of interest program at both the corporate and the employee level.
 - c. Have external oversight of CHAs by the assessment program owner
 - d. Submit to audits as agreed to by the assessment program owner
 - e. Commit to disclosing any conflicts of interest
2. **The following programs have assessor qualifications that meet the requirements**
 - a. Safer Choice Third- Party Profiler Qualifications - [LINK](#)
 - b. GreenScreen Profiler Qualifications- [LINK](#)
 - c. ChemFORWARD- [LINK](#)

Process for qualifying additional programs

1. Applicants may submit their application to ChemFORWARD who will engage supporting consultants to evaluate the documentation attesting to their qualifications. A list of pre-approved consultants will be provided on the ChemWorks website for applicants to select from.
 - a. All application work, including the pilot, will be done at the expense of the applicant.
 - b. Consultants will use the documentation checklist to ensure that all requirements are met ([LINK](#))
2. Applicants must describe and verify how they meet all of the requirements for
 - a. Program Criteria
 - i. Development and oversight
 - ii. Ensuring qualified assessors.
 - b. Method criteria
 - i. Disclosure requirements
 - ii. RSL requirements
 - iii. Hazard Assessment Criteria
3. As part of the application process, applicants will engage in a pilot project with a test product to calibrate results against the established criteria.

Thank you to our expert reviewers

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