

SPARC – Responsible Chemistry

Revised: 9/11/2024

This document details the supplier SPARC requirements for the Supply Chain Responsible Chemistry Program. Additional supplier's EHS expectations are outlined in our Supplier's EHS Expectations spec (if you don't have an access to the spec, please contact Intel Commodity Manager. Please read and understand the details below, which will help explain what needs to be done and why.

After implementation, there may be additional requirements to comply with this program. These may include regulatory updates, additional assessment or audit requests, actions required resulting from an audit/assessment, or any other requirement Intel deems necessary due to a change in the risk landscape.

Chemical and Material Suppliers - The Supplier Sustainability Scorecard (S3) survey will be administered through Graphite in 2024. Select chemical or material suppliers have been assigned the survey to track year over year progress.

Intel will be assigning chemical or material suppliers 2024 deliverables based on suppliers' responses to the S3 survey completed in 2023. Please note that the list below is a comprehensive list of deliverables that could be assigned for 2024. Not all suppliers are required to complete all listed deliverables. Please consult your SPARC snapshot for your company's assigned Supplier Sustainability Scorecard related sub-deliverables.

- *Endocrine Disruptors / Neurotoxin Expectation Setting + Process Update* – Intel requests our suppliers to start screening the ingredients in formulations provided to Intel for endocrine disruptors and/or neurotoxins. Results can be provided as part of the Green Chemistry / Alternative Assessment loaded to SEIMS. For more information on these endpoints please see: <https://echa.europa.eu/understanding-ed-assessment> OR OECD Guidance Document 150 and Grandjean & Landrigan "List of 201 Chemicals Known to be Neurotoxic in Humans" or OECD Guidelines 424 and 426 can be used as references for neurotoxicity.
- *Toxicology Data Gaps Expectation Setting + Process Update* – Suppliers are to identify ingredients (>0.1% wt%) with zero data available for key toxicological endpoints (carcinogenicity, reproductive toxicity, mutagenicity, persistence, and bioaccumulation). Suppliers should create a gap closing action plan for the top 3 most prevalent or largest volume ingredients used for formulations provided to Intel and review plan with Responsible Chemistry team in Q3.
- *Geo Specific Chemical Regulatory Expectation Setting + Process Update* – Suppliers should review Intel expectations (material selection guide and Supplier EHS spec) regarding their required actions in various different Intel geographies with respect to chemical regulatory requirements and suppliers should update their internal chemical regulatory compliance processes accordingly. If you have any questions related to the Intel regulatory compliance expectations, please contact your Intel Responsible Chemistry team member.
- *Supplier Internal Regulatory Sensing Expectation Setting + Process Update* - Intel expects our chemical and material suppliers to perform chemical regulatory scans every 6 months at the minimum and quarterly is preferred. Based on these expectations, Intel requests suppliers to review their internal policies regarding chemical regulatory sensing and update their processes accordingly, if necessary.
- *Supply Chain Regulatory Due Diligence Expectation Setting + Process Update* – Intel would like suppliers to work with their supply chain at least once a year with a preference for twice a year to confirm that the raw materials are not on any regulatory watch lists, ingredients and impurities are being reported appropriately, and that the raw material vendors are also performing chemical regulatory sensing regularly. Based on

these expectations, Intel requests suppliers to review their internal policies regarding supply chain due diligence for chemical regulatory sensing processes and suppliers will update their processes accordingly, if necessary.

- *Green Chemistry Alternative Assessment Expectation Setting* – Supplier should review Intel expectations for suppliers to complete Green Chemistry Screening and Alternative Assessments for all new R&D and HVM and submit the results to SEIMS. Green Chemistry Screening and Alternative Assessments submitted to SEIMS should have appropriate focus on level of detail, products in scope, proposing alternatives, etc. Detailed instructions about the requirements and process are below. Points will be awarded based on review of % formulations proposed vs. those with Green Chemistry Screening and Alternative Assessments loaded into SEIMS for 2024.
- *External Packaging Waste Reduction* - Intel will be requesting suppliers to reduce the polystyrene waste generated by Intel disposing the external packaging suppliers use to send Intel their materials or to change the types of materials used in the packaging.

Green Chemistry Screening

Note: Please complete Green Chemistry Screening and Alternative Assessment for **all NEW HVM and R&D** materials (See below for how to complete and submit Green Chemistry Screening and Alternative assessment).

How to complete Green Chemistry Screening and Alternative Assessment:

- *Step 1:* Use a **Green Chemistry Screening** tool as defined by your organizational procedure to assess if the chemical ingredients in your products contain known hazards. This step should be performed during your product R&D and formulation period.

Green Chemistry Screening:

Suppliers are required to assess the inherent hazards of each ingredient using available green chemistry screening tool or methodology developed within your organization. Please specify which screening tool or methodology is used in your screening result as data source. If you need assistance in selecting a tool, contact intel.supplier.assurance.communications@intel.com for additional guidance.

- *Step 2:* Compare the results of your screening against **Intel's Green Chemistry Criteria** and identify high-risk ingredients. If there are no high-risk ingredients identified and/or the product is not classified as hazardous under GHS classification, no further action is required.

Intel's Green Chemistry Criteria:

Consider alternatives if the following high-risk ingredients are identified:

- GHS Categories 1 and 2 for Carcinogen, Mutagen, and Reproductive Toxin, and Acute/Chronic Toxicity and/or
- Positive indicator for Environmental Persistence and Bioaccumulation
- Please also refer to EU substances of very high concern (SVHC) and Candidate List of SVHC for authorization available at <https://echa.europa.eu/>
- Endocrine disruptors and Neurotoxins
- PFAS

- *Step 3:* Perform **Alternative Assessments** to identify and evaluate alternatives for high-risk ingredients identified in Step 2. These assessments provide suppliers a consistent way to compare one chemical against another.

Alternative Assessments:

After identifying high-risk ingredients by **Green Chemistry Screening**, suppliers are expected to perform Alternative Assessments to evaluate the possibility of more benign alternatives and compare inherent hazards against the high-risk ingredients. Alternative Assessments can prevent the selection of a regrettable substitution.

- *Step 4:* Provide any actions taken as a result of the **Alternative Assessments** in Step 3. Please indicate if alternatives are implemented. If not, provide reasons why the alternatives were not implemented.
- *Step 5:* Submit results of the **Green Chemistry Screening**, results of the **Alternative Assessment**, and any actions taken as a result of the **Alternative Assessment** in Supplier EHS IP Management System (SEIMS). The due date of the screening and alternative assessment will be contingent on the aligned technology ramp timeline for HVM materials. For new R&D materials, please upload the results of green chemistry screening and alternative assessment when creating a new SEIMS entry for Intel's R&D material evaluation.
- *Step 6:* Select suppliers will also be contacted for chemical footprint reduction project collaboration in line with Intel's 2030 RISE goals. This will be by invitation only and focused on specific projects.

Equipment/Parts/Article Suppliers – Intel requests suppliers complete two deliverables in 2024 to demonstrate compliance and/or fulfill a proposed or existing regulatory requirement regarding the equipment, parts, and other items provided to Intel. The supplier will be notified of the first deliverable April 1st and the second October 1st. Further details will be provided with the deliverable requests.

Tools, equipment, and parts, broadly referred to as articles, are a new focus of chemical substance regulations. Every tool, item of equipment, and part must consider Substances in Articles Regulations to determine whether a regulated substance is present, and if so, that compliance is met. Examples of the better-known chemicals facing restriction include PFAS, PIP (3:1), and REACH candidate substances.

- *Requirement:* Intel requests supplier to demonstrate compliance, and/or fulfill a proposed or existing regulatory requirement, regarding the equipment, parts, and other items provided to Intel. Further details will be provided with the deliverable requests.
- *Scope:* All suppliers that provide any articles are considered in scope of substances in articles regulations; however, not all suppliers of articles may be assigned this deliverable. Suppliers of items with many components or manufacturing-critical items may be prioritized earlier in Intel's compliance assessment. Your SPARC snapshot letter will confirm whether the deliverable has been assigned.
- *Available Assistance:* Intel is participating in industry consortia, including working groups currently engaged in improving supply chain transparency. Participation in these efforts improves their outcome and provides access to the shared knowledge offered in solving these industrywide challenges.

Note: The person receiving this deliverable request may not be familiar with these regulations. Typically, a person responsible for product compliance, environmental/chemical compliance, or supply chain compliance

will have the knowledge to complete the assigned deliverable. While we understand and appreciate that not all questions may have fully developed responses by the deadline, we request our suppliers begin early to allow for a thorough investigation or communicate challenges to Intel and see if these challenges can be better resolved by working together.

Sustainability Roadmap (PFAS) - Suppliers are being requested to provide a Sustainability Roadmap in order to promote Intel - supplier engagement on PFAS, in line with Intel Sustainability Summit recommendations. Roadmaps will be used to drive strong engagement & execution on key priorities & technical projects in order to demonstrate genuine progress & technical leadership.

For specific suppliers who use chemicals in their manufacturing processes - They may be asked to participate elements in RBA's Chemical Leadership Recognition Program (CLRP) where there deemed potential manufacturing chemical risks. Please see more information and update about RBA's program here: <https://www.responsiblebusiness.org/initiatives/rei/chemical-management/>. Selected suppliers will be notified and assigned specific parts of the CLRP elements.

Resources:

Please refer to the Responsible Business Alliance (RBA) courses (available on the RBA [E-Learning platform](#)) or CEPN for additional resources.

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