



ENOVIA Materials Compliance™ Central

Meet Global High Tech Environmental Compliance Mandates Throughout the Product Development Process

Meeting environmental compliance regulations throughout the product development process is a necessity for global companies. This is especially true for High Tech manufacturers who must meet the European Union's Restriction of the Use of Hazardous Substances (RoHS) Directive, Waste Electrical and Electronic Equipment (WEEE) Directive, the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) mandate, the Joint Industry Guide (JIG), and similar emerging initiatives in Asia and North America.

The multitude of environmental regulations and their ever changing complexity has prompted many companies to take a reactive stance, preferring to handle compliance reporting and analysis late in the product development cycle. This approach is costly and provides no integration with a Product Lifecycle Management (PLM) strategy.

By implementing **ENOVIA Materials Compliance™ Central** as part of an overall PLM strategy, users can verify and integrate product compliance with RoHS, JIG and REACH requirements at every phase of the process. Product manufacturers can:

- Avoid late-stage design changes
- Explore ways of improving product designs while meeting compliance requirements
- Reduce or eliminate the use of hazardous materials and substances in their products
- Minimize launch delays, recalls, fines, poor customer satisfaction and a damaged public image

ENOVIA Materials Compliance Central helps companies improve their competitive edge by integrating proactive environmental strategies such as "Eco-Design" (Design for the Environment). With ENOVIA Materials Compliance Central, companies can implement best business practices throughout the development cycle, including collecting, integrating, analyzing and reporting a product's environmental compliance.

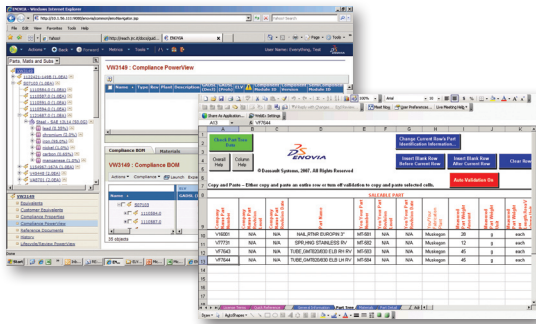
Product development teams can check material content information from any design view, and cross-reference the data against multiple regulations. Designers can make changes early in the design process by quickly determining if components meet all the compliance standards and substance thresholds. Reports can be generated that compare the compliance of manufacturing equivalents, list recycle content, or evaluate best and worst case manufacturing location scenarios.

The ENOVIA Materials Compliance Central component library can contain the most current material compositions and RoHS certifications, ensuring that the evaluation process incorporates the latest supplier information. The result is that design engineers have the critical product information necessary when making choices based on the needs of the customer and/or market requirements. The net result is delivering innovative and environmentally compliant products that meet global market demands.

With ENOVIA Materials Compliance Central, High Tech Companies are able to:

- Manage material data to meet customer and region specific compliance mandates
- Analyze a product's compliance throughout the product development process
- Maximize the reuse of compliant components
- Rapidly assess product and supplier impact when new restricted substances are identified
- Initiate supplier material declaration requests, monitor supplier progress and accept/reject declaration submissions
- Integrate the supply chain for successful collection of RoHS certifications and material composition
- Securely protect IP in the reporting process, and enforce consistency
- Integrate and analyze external Bills of Material (BOM) structures
- Improve data quality by establishing a material declaration collection standard across the supply chain
- Report product compliance to customers

The ENOVIA PLM Environment Features and Capabilities:



Materials Data Management

Companies can manage and maintain material composition for make and buy components without disruption to design or production schedules. The management and collection of material composition helps companies assess their compliance against lead-free, EU RoHS, China RoHS, Korea RoHS, REACH, and JIG initiatives and scale to meet other emerging global regulations.

Materials Compliance Analysis

Engineering can easily generate part-level reports to help determine compliance with customer or market specific requirements. Substance Use, Substance Threshold, Multi-Level BOM Analysis Report, and Recycled Content for Energy Using Products Directive (EuP) are a few of the pre-packaged analytic reports. Engineering can also analyze the product's compliance using what-if scenarios such as Make vs. Buy (internal vs. supply chain costs) using the Best/Worse Case Compliance Report.

Maximize the Reuse of Compliant Components

Design engineers can make component selection decisions based on the component's RoHS and JIG compliance rating. Administrators can configure these views to display other customer or region regulations such as China RoHS, Korea RoHS, and California RoHS.

Security and Intellectual Property (IP) Protection

Critical IP is protected throughout the data collection and reporting process. All access to data, reports, and application functionality is role-based to provide organizations with the necessary security levels.

Assess Impact of New Restricted Substances

Advanced "where-used" capabilities allow engineers to quickly identify non-compliant components and the products that they are used in. Engineers can then leverage the extensive search capabilities to identify alternatives, or "green parts," as well as the identification of lead-free options.

Manage Supplier Material Declarations

Compliance engineers can initiate and send material declaration requests, with due dates and instructions, to its supply chain. With ENOVIA Materials Compliance Central, compliance engineers can monitor the supplier's progress and review, validate and approve/reject all received supplier submissions.

Integrate the Supply Chain

With the optional Materials Compliance Supplier Portal, suppliers can view their assigned material declaration requests, review the customer's reporting deadlines and upload completed material declarations.

Reduce Data Quality Errors

Collect material composition and certifications from the supply chain using industry standard formats including ENOVIA Materials Compliance Connect and IPC-1752 (classes 1-6). Compliance engineers can import any digitally signed ENOVIA Compliance Connect or IPC-1752 XML file.

Integrate and Analyze External BOM Structures

Rule-based import and export capabilities allow compliance engineers to analyze BOM structures that are managed by external systems (e.g. ERP).

The Role of ENOVIA V6 and PLM 2.0:

ENOVIA Materials Compliance Central supports PLM 2.0, product lifecycle management online for everyone; and the ENOVIA V6 key values. PLM 2.0 adopts the concepts of online communities and creation, constituting a new paradigm for product innovation. ENOVIA V6 harnesses the collaborative intelligence from diverse online communities to maximize intellectual assets, capturing and leveraging the Intellectual Property (IP) from all business and consumer users.

ENOVIA Materials Compliance Central uses V6 capabilities to bring these benefits to users:

Global Collaborative Innovation:

The environmental stewardship of your organization can be quickly enhanced by providing access to material compliance information to everyone throughout the product lifecycle from new product development to manufacturing to end-of-life recycling.

Online Collaboration and Innovation:

Internet availability for all stakeholders who need immediate access to material compliance data means costly queue times dissolve as real time concurrent/parallel work processes occur.

A Single PLM Platform for Intellectual Property Management:

All deliverables related to collecting, integrating, analyzing, and reporting material compliance information are accomplished in a single platform and environment, eliminating translation errors and ensuring a single source of truth.

Ready to Use PLM Business Processes:

Companies gain immediate value from their investment by using out-of-the-box (OOTB) processes and industry standard data collection and reporting formats.

A Lifelike Experience:

Any user can find PLM information, understand others using the universal language of 3D, experience the product, and collaborate in an immersive online 3D environment.

Lower Cost of Ownership:

Users can easily integrate the out-of-the-box material compliance data management functionality into existing business processes thereby creating a "Design for Environmental Compliance" culture. This adaptable business model leads to breakthrough Return on Investment (ROI). Built on a Services Oriented Architecture (SOA) platform, and based on market feedback, ENOVIA Materials Compliance Central delivers immediate financial value.



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