

Environmental compliance for aerospace and defense

The total environmental compliance solution for the aerospace and defense industry

fact sheet

Siemens PLM Software

www.siemens.com/teamcenter

► Summary

Teamcenter® software's complete solution for end-to-end management of environmental compliance and material content information provides aerospace and defense companies with a flexible and easy-to-deploy toolset to meet their industry's strict environmental compliance requirements.

Benefits

Significantly reduce the risks associated with being non-compliant

Support environmental stewardship initiatives and green business processes

Demonstrate due diligence by building a compliance audit trail

Reduce environmental data collection cycle times and cost

Reduce analysis and reporting cycle times and cost

Provide engineers with up-to-date compliance status of all components

Enable green design

Minimize the cost of excess and obsolete inventory due to noncompliance

Enable companies to keep pace with new and constantly changing environmental regulations and exemptions

Easily integrate with existing systems

Features

Automatic generation and tracking of compliance and material content reports

Supplier portal to facilitate information gathering and ensure partner compliance

Material content management for parts and products

Teamcenter's environmental compliance solution plays an important and growing role in helping aerospace and defense companies develop environmentally friendly or "green" products. Teamcenter enables companies to understand and control the material makeup of their products and to comply with environmental regulations that attempt to limit the use of hazardous substances in today's aerospace and defense products.

Teamcenter's environmental compliance solution reduces the costs associated with collecting and managing the vast amount of environmental data required to establish and document the compliance of complex products down to the substance level.

Business context

The European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulation seeks to ensure that all chemicals are fully tested by industry and used in ways that are safe for humans and the environment. Aerospace and defense products will be affected by this regulation.

REACH is a regulation of the European Union (EU) that regulates chemical substances manufactured or imported into member states. It entered into effect throughout the EU in June 2007. REACH will restrict an estimated 1,500 to 3,000 substances of very high concern (SVHCs) commonly found in products, including those provided by the aerospace and defense industry.

Under REACH, some essential chemicals may be restricted and, in certain instances, removed from the market causing costly supply chain disruption. Manufacturers could lose sales or have shipments of their products blocked if they fail to comply with REACH or meet its reporting obligations. Given the risk of non-compliance, insurers are reportedly also closely monitoring the potential liabilities associated with REACH and are seeking evidence of manufacturer compliance.



Compliance validation against multiple regulatory, internal or customer standards

- Easily configurable XML templates
- Management of regulatory exemptions and timeframes
- Support for multiple compliance status levels

Material content and compliance aggregation across multi-sourced components (patent pending)

Data exchange support for industry standard protocols

Integration of compliance information into standard business processes for:

- Change management
- CAD Integration
- Supplier qualification
- Part qualification

Ability to determine compliance status at any point in the product lifecycle

Integration into existing supply chain, design and manufacturing systems, including:

- Existing Teamcenter environments
- ERP systems (Oracle, SAP and others)

Manufacturers face a monumental bookkeeping nightmare as they try to comply with the REACH regulation by:

- Collecting and aggregating substance information from multiple suppliers on a regular schedule
- Identifying and communicating the presence of SVHCs in their products
- Creating reports that detail the presence of restricted substances and their amounts in products shipped

This means that aircraft manufacturers must now understand the chemical makeup of their products and break them down to the chemical abstract system (CAS) number or substance level. Manufacturers must calculate the amounts of each substance (concentration levels) in every product in order to determine their reporting obligations to their customers, as well as to the EU.

Already compounded by the complex BOM of a typical aircraft, this requirement is further exacerbated by the vast global supplier network maintained by today's aerospace and defense manufacturers.

Collecting and aggregating this complex data from multiple suppliers is a costly, difficult, and time consuming task even using today's methods. Teamcenter's environmental compliance solution streamlines and automates these tasks.

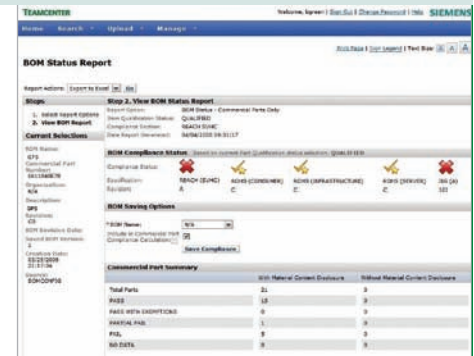
Key Teamcenter capabilities

Teamcenter's off-the-shelf environmental compliance solution is flexible, affordable and easy to deploy. Ideally suited for the aerospace and defense industry, this Teamcenter solution enables manufacturers to meet REACH obligations while establishing an enterprise-wide framework for staying ahead of ever-evolving requirements.

Teamcenter maximizes the visibility of compliance information in all stages of the product lifecycle, thereby minimizing the risks and costs associated with non-compliance. By providing a single-source of all product and process knowledge, Teamcenter enables aerospace and defense companies to centrally manage compliance so that they can:

- Interface with all their existing BOM systems to create a "single version of truth" for all product environmental data and status
- Efficiently collect and manage environmental data from multiple suppliers in a variety of formats, ranging from basic certificates of compliance to industry-standards such as IPC-1752
- Grade their products with respect to multiple compliance standards, such as REACH, or establish their own corporate standard
- Quickly produce detailed reports that show a product's compliance – in all its "as built" permutations
- Mitigate the risk of being non-compliant

Teamcenter's environmental compliance solution delivers a complete set of functionality for analyzing and tracking compliance at the substance, material, part and product levels. It can easily be integrated into existing supply chains and design and manufacturing systems as part of a comprehensive PLM strategy to support efficient data collection and reporting.



Teamcenter for Environmental Compliance – powered by EMARS

Synapsis Technology, Inc. provides environmental compliance and product lifecycle management (PLM) solutions. EMARS, Synapsis' Environmental Material Aggregation and Reporting System and its Compliance Checker are patent-pending solutions that enable companies to comply with environmental regulations, such as ELV, RoHS and WEEE among others. www.synapsistech.com



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