
The Business Case for Sustainability and Product Stewardship

A Review of Saint-Gobain North
America Chemical Management
Best Practices



Introduction

Saint-Gobain, the world leader in the habitat and construction markets, designs, manufactures and distributes building materials, providing innovative solutions to the challenges of growth, energy efficiency and environmental protection. With 2010 sales of €40.1 billion, Saint-Gobain operates in 64 countries and has more than 190,000 employees. In North America, Saint-Gobain manufactures a vast collection of products including building materials, abrasives, ceramics, performance plastics, technical fabrics, and glass containers for the food and beverage industry. Among the Saint-Gobain brand family are CertainTeed, Norandex, Verallia, Saint-Gobain Abrasives, Saint-Gobain Performance Plastics, Saint-Gobain Crystals, Saint-Gobain NorPro, Saint-Gobain Solar, Saint-Gobain Glass Corporation, and ADFORS.

With such an extensive product portfolio that spans both industrial customers and end consumers, Saint-Gobain North America (SGNA) is committed to the highest sustainability and product standards in business today. Among their commitments to sustainability, they focus on employee health and safety, minimal environmental impact, and consumer well-being. Specifically, their sustainability objectives include the following core principles:

1. To develop innovative, effective solutions that meet the challenge of protecting the environment.
2. To consider the environmental impact of their business at every stage, from product design, through manufacturing, to the point of sale, and product disposal at the end of life.

In practical terms, SGNA operates to limit the environmental impact of buildings, promote renewable energies, develop low-energy solutions, research and develop a world-class lineup of sustainable building products, and preserve natural resources, including water, wood and minerals.

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So what does all of this mean for SGNA's sustainability and product stewardship initiatives? What it means is that the environmental, health, and safety (EHS) function is not just a watchdog, but a strategic partner to business. It means that EHS is not just compliance-focused, but business-focused. It means that the product stewardship function interacts with and influences product design decisions, manufacturing processes, environmental impact reduction strategies, employee health and safety, customer use case scenarios, and much more.

At no other time has the EHS function had the opportunity or resources to participate in these core business initiatives. According to Dennis Wilson, Manager, Product Stewardship & HSE for Saint-Gobain North America, "We're at a time where resources are constrained and EHS is in a good position based on their training and experience to help make the business case of why sustainability makes good business sense. More and more, I think the EHS profession can be a leader in devising strategies for product development and product use."

This paper discusses Saint-Gobain North America's approach to sustainability and product stewardship. Additionally, we examine the partnership between SiteHawk and SGNA, revealing how SiteHawk not only supports SGNA's approach, but plays an important role in their product stewardship and chemical management initiatives. Finally, the paper shares a practical roadmap for how you can help the EHS function become a strategic partner to business.

Saint-Gobain North America Product Stewardship Mission

Saint-Gobain's product stewardship team's role is to assist in the reduction of environmental, health, and safety impacts of their products - to employees, customers, the environment, and their own facilities. From an external customer standpoint, they help make the products more sustainable, longer lasting, and with a reduced downstream EHS impact. The EHS team works with the business groups, as well as R&D to help educate and influence what materials go into Saint-Gobain's products. Specific business groups that EHS partners with include: operations for energy use, water use, and waste issues; manufacturing plants for industrial hygiene; and marketing teams to share lifecycle assessments and ensure that customers and consumers understand the true impact of products up and down the supply chain.

Worldwide, Saint-Gobain's sustainability and product stewardship program is known as "eco-design." SGNA's program has evolved over the last 18 months. It is becoming a new way to view the EHS role in the organization. The SGNA EHS team helps develop the vision for product stewardship at SGNA, defining product stewardship as:

An integrated business process for identifying, managing, and minimizing the health, safety and environmental impacts and associated risks throughout all stages of a product's cradle to cradle life cycle in the best interest of key stakeholders; customers, employees and shareholders, as well as society. The goal is to manufacture and distribute the most sustainable products.

"I have a very unique role and one that I enjoy very much in that I have a big picture of the entire organization. EHS can be part of the business solution, not just a compliance function. Who knows more about all of these potential environmental, product, and safety issues than the EHS group," states Mr. Wilson. His team's objectives include:

Saint-Gobain North America Product Stewardship Objectives

1. To encourage development of Saint-Gobain products to be:
 - Safe for the consumer and employees
 - More durable
 - Reusable & recyclable
 - Manufactured with more recycled content
2. To take increasing responsibility for company externalities and the end-of-life management of the products that are produced
3. To demonstrate the business incentive of tools, such as cradle to cradle life-cycle impact analysis for SGNA products and packaging including:
 - energy and materials consumption
 - air and water emissions
 - worker safety
 - waste disposal

Strategic Role of EHS

Global directives, national initiatives, state, and local regulations are all affecting what companies should or should not use in their products. Additional pressure is coming from consumers, employees, business partners, and non-government entities (NGOs), that affects the way we do business. A rising sentiment for "greener", safer products is a clear message to us all. This competitive peer pressure is forcing product-focused companies to be more innovative with the products they take to market, the materials that go into the product, and the materials and substances that are used in the manufacturing process. In other words, the concept of sustainability is moving from "nice to have" to "need to have."

Saint-Gobain North America has initiated several programs to advance their product stewardship initiatives. On the construction products side of the

business, a large part of the product development effort is focused on insuring that their products have less impact. Insulation is a good example; the group is moving toward use of an organic binder and the siding products contain recycled content. Furthermore, the company has a program for taking back materials in some product categories. For example, off spec and some waste roofing materials are recycled into roadbeds and parking lots.

“In today’s world, it’s critical to business that alternative product uses are considered and put into practice, suggests Mr. Wilson. In a resource-constrained world, if you’re better at using resources than your competitor, you’ve got an advantage. Finding alternatives to virgin materials, re-using materials, re-using petroleum-based materials are all examples that can be put into practice.” The correlating benefit is that companies that use renewable products are less dependent on other organizations or even other parts of the world.

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In the building products industry, companies have a huge incentive and opportunity to lower their carbon footprint and reduce environmental accounting costs. With these tools, you’re better able to understand your costs, especially if carbon has a price point attached to it. Additionally, companies are better able to anticipate risks. For example, if you are in a geographic region where water conservation is an issue, product stewardship can help drive product development to identify materials and processes that are not as water intensive. “I’m tremendously excited about the opportunity that the profession has by paying greater attention to environmental issues going forward,” comments Mr. Wilson. “I do not recall a time when EHS has played such an important role in so many functions of business, including marketing, R&D, manufacturing, risk management, and even finance. The importance of EHS to business today makes the EHS profession more relevant than it has been and we are in position to provide the business

with the information it needs to make informed business decisions.”



SiteHawk's Role

The product stewardship conversation starts with the materials and components that go into products. Additionally, substances utilized in the manufacturing process, or in the operations are also a key consideration for any business trying to implement a product stewardship and sustainability plan. That’s where SiteHawk comes into play. In a world that has numerous evolving regulatory and customer requirements, such as CA Green Chemistry, TSCA reform, REACH, and many state proposals to reduce or eliminate the use of certain substances, it is critical that manufacturers understand what is in, or should not be in their products.

In 2010, Saint-Gobain North America chose SiteHawk as the chemical management solution for its operations. SGNA’s goal was to have one solution that can control and provide visibility into what is used in the manufacture of its products. SiteHawk’s full suite of MSDS management, MSDS authoring, chemical inventory, and chemical content solutions

was chosen. According to Dennis Wilson, “SiteHawk is the tool that we use to identify substances that may already be in our products, but also to keep additional substances that may trigger a regulatory concern, or even increasingly a customer issue, out of our products and facilities. SiteHawk helps us make business decisions about substances that might impact EHS, which in turn could impact a business’s bottom line.”

Companies like Saint-Gobain are starting to see a lot more customers with their own requirements for what type of raw materials they will accept, or more likely will not accept, in a product. For example, the retail giant, Wal-Mart, is driving adoption of corporate sustainability programs. Wal-Mart’s goal is to put a measure of sustainability on the packaging of every product. This has the potential, based on Wal-Mart’s market force, to educate the average consumer about sustainability issues in a way that no government agency or company will ever be able to do. Consequently, data starts to become more familiar to the average consumer, more companies may start to realize that sustainable practices are not that expensive. Moreover, it will soon be the generally accepted way of doing business.

Project Scope

Prior to working with SiteHawk, SGNA had utilized a collection of vendors and processes to manage chemical data and chemical management programs. These ran the gamut from electronic systems to manual processes with significant manual labor required. Taking a holistic view of the business problem, beyond pure material safety data sheet management, the product stewardship and EHS teams led the search for a single solution.

The business drivers for the project included a number of objectives ranging from safety compliance to product stewardship. Safety, health, and environmental compliance focused on the core hazard communication requirements that the company is subject to in the various countries that it operates. Hazard communication is one of the most frequently cited OSHA violations. Accordingly, it was important for SGNA to have a standardized system and approach for identifying and communicating the potential chemical hazards to the business and employees.

As discussed above, the product stewardship requirements played a big role in the decision-making process for SGNA. Since SG’s goal is to create the “most sustainable” products in the world, it was important for the company to find a solution to understand and manage the ingredients that go into those products.

One of the most significant external drivers was the adoption of the Globally Harmonized System (GHS) requirements in the markets in which Saint-Gobain does business. The GHS is expected to be adopted in the US in 2012. As a result, SGNA needed a provider with not only GHS-ready applications, but a plan to help transition the company to implement the new regulations. That involves chemical data changes, system changes, output changes for safety data sheets and labels, as well as internal training. Topping it all off, the company expects a large number of vendor MSDS updates from document changes with their raw material vendors. Other external regulatory influences include California Green Chemistry, potential TSCA Reform, and REACH.

SGNA defined the overall scope to account for three core elements of the chemical management project: 1) Vendor MSDS Management, 2) MSDS Authoring, and 3) Regulatory and Material Profiling.

Project Need #1 – MSDS Management

SGNA’s MSDS project objectives were to identify and select a software and MSDS services vendor that could provide a full featured, easy to use, cost effective MSDS solution for all Saint-Gobain locations in North America. The number of facilities totaled nearly 150 manufacturing and research facilities in North America. Specific criteria of the new solution included:

- User-friendly software applications
- Comprehensive MSDS database & regulatory content
- 100% accuracy with no data duplication
- Broad search capabilities
- Accessibility
- Flexible data back-up solutions
- Site-based notebooks feeding from a centralized master catalog

Project Need #2 – MSDS Authoring

The second material element of the SGNA project scope focused on material safety data sheet authoring for SGNA’s own products. While evaluating both software solutions and an outsourced authoring approach, they determined that the outsourced model was the best choice for their business in the near term. Specific criteria for their evaluation included:

- Global focus for the markets they do business in
- Authoring expertise, responsiveness, and customer service
- Expertise in international requirements
- Protection of intellectual property

Project Need #3 – Regulatory and Chemical Profiling

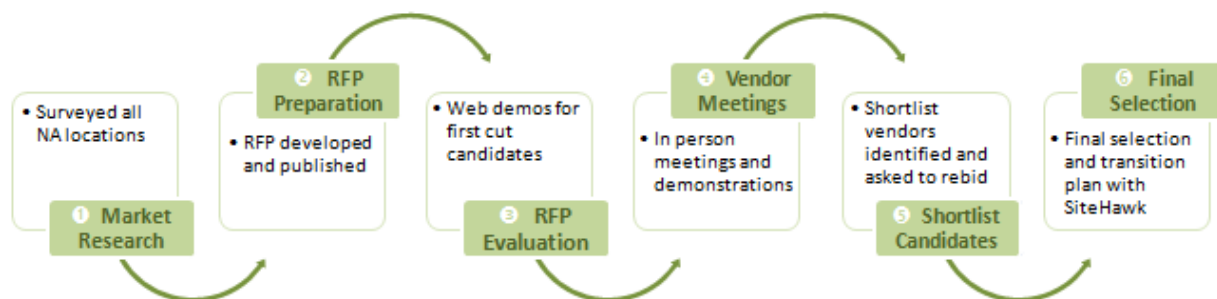
As discussed above, it was important to the product stewardship team to assist business in the identification and control of materials in their products. Working with R&D, marketing, and manufacturing, they were looking for a system to assist in their goal to identify substances to keep out of their products or manufacturing processes. By taking a holistic, corporate approach, the company is better able to manage incoming materials, the flow of materials between facilities, and the materials that make their way into consumer products.

Evaluation & Selection

After defining the scope of work and current spending for chemical data management programs, the team invited twelve MSDS and chemical management vendors to participate in a comprehensive RFP process. Over the 18-month review and selection process, it was narrowed down to a shortlist of vendors. The evaluation team considered a variety of factors including vendor history, solution functionality, solution value, perception and references in the market, and customer service responsiveness and attentiveness.

The evaluation process followed a methodical stage-gate approach:

Figure 1: SGNA’s Vendor Evaluation Methodology



The Solution

After the thorough review and evaluation by the multi-function, multi-division team, Saint-Gobain North America chose SiteHawk as its chemical and MSDS management solution provider. The SiteHawk solution replaced both the other incumbent providers, as well as the facilities operating in a manual fashion. The total solution is comprised of the following elements:

Vendor MSDS Management (VMM)

- SiteHawk VMM supports SGNA's hazard communication and compliance initiatives for managing material safety data sheets (acquiring, updating, and indexing) and communicating appropriate safety information in a readily-accessible manner to employees. VMM is also the base repository for SGNA's chemical and regulatory content that is used for external regulatory reporting, internal reporting, material approval, and chemical inventory management.

Environmental Regulatory Reporting

- Utilizing the Professional version of SiteHawk VMM, SGNA is able to perform both routine material reporting as well advanced regulatory reporting such as Tier II, Form R, SVHC, TRI, Annex I/Annex VI cross-referencing reporting, and more.

Chemical Inventory Management

- SiteHawk VMM includes chemical approval and chemical management functions to not only control what materials come on site, but manage the flow of information about those materials including status, quantity, and potential hazards. The complete MSDS data indexing that SiteHawk performs includes physical properties, health and physical hazards, component cross-references, and more to enable a rich picture and understanding for compliance, reporting, and risk management purposes.

Chemical Inventory Services

- Getting an accurate read of chemicals that exist in the facilities is the first step towards best practices chemical management. SGNA is utilizing SiteHawk's chemical inventory specialists to perform site physical chemical inventories which are then reconciled back to each facility's electronic MSDS notebook.

MSDS Authoring Services

- Utilizing SiteHawk's professional authoring services team, SGNA outsources much of the safety data sheet authoring required for their products. With limited time and resources, the goal is to assist SGNA with expertise, responsiveness, and customer service to meet their MSDS authoring demands. Additionally, although the company is currently using the outsourced authoring services, their vision is to use SiteHawk's MSDS Engineer authoring software platform to maintain and update the safety data sheets going forward.

Chemical & Regulatory Profiling

- Additionally, SGNA has also contracted to acquire chemical profiling tools from SiteHawk to assist in regulatory and product development decision-making processes. Again, with the rich set of indexed chemical data and regulatory lists, the profiling toolset enables SGNA to understand and prevent employee risk, new product and market risk, environmental risk, and compliance risk.

For SGNA, it was important to have more than just a MSDS management tool. Having a very detailed and deep knowledge of product materials and manufacturing materials was critical to Saint-Gobain's selection. Another important aspect for SGNA was that these tools can be used outside of the EHS team. It's simple enough that people without traditional EHS backgrounds can access the data and the tools needed to make business decisions throughout the organization. "These tools make it possible for EHS to be involved in the design and marketing side of the products. [The tools] bring EHS into the profit center of the business and not just a cost center."

Why SiteHawk?

So what were the driving factors for Saint-Gobain North America to choose SiteHawk? According to the company, working with a single source provider and selecting a vendor with an exemplary customer service record were the most important factors. Dennis Wilson states, “It’s given us both a short-term system for managing chemical information, but also a long-term solution that will grow with product stewardship initiatives as they evolve.”

“Customer service was one of the biggest factors. When it comes to technology, a number of vendors have similar technology and systems that do very similar things, albeit in slightly different ways. What I learned, especially with MSDS authoring, is that having a vendor that could respond very quickly is critical. Oftentimes, our EHS team is asked to respond very quickly for material information. For example, when someone from marketing needs an MSDS to respond to customer concerns or needs, we have to respond urgently to meet our own customer expectations. **I found SiteHawk to be tremendous when responding to requests. What I received was accurate, delivered in the timeframe as promised, and at a reasonable price.**”

The evaluation team considered the approach, preparation, and history of customer support of each potential vendor. In fact, SiteHawk was the only vendor that came to the table with a transition plan for SGNA’s adoption of the Globally Harmonized System (GHS) guidelines. The company appreciated the vision, commenting that “there was always a look to the future and from my perspective that is invaluable.” Mr. Wilson continued, “Customer service is the primary reason that Saint-Gobain North America chose SiteHawk. The service mentality showed itself in the evaluation process. Their partnering approach and attitude has continued throughout the relationship. It’s not just a customer-vendor relationship, it’s a partnership.”

With respect to the software functionality, the evaluation team found the web applications to be user-friendly and intuitive. According to members of the evaluation team, “I’ve used several MSDS management systems in the past and SiteHawk is as intuitive as I’ve seen. What is supposed to work, works and that might sound fairly simple, but it isn’t always the case. I can be confident that what is

there works and that’s the biggest advantage to me. It does what I expect it to do.”

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The ROI

Another primary driver for standardizing and outsourcing the MSDS and chemical management function was cost savings. The company evaluated both hard cost savings such as employee time, internal systems development and maintenance, external technology, content as well as soft costs or other benefits such as risk mitigation or regulatory compliance. For pure financial return on investment (ROI) estimates, SGNA focused on the following business processes: MSDS management, MSDS and product label authoring, document translation, and product label updates.

The company is still in the midst of the solution rollout, but the EHS team performed an extensive financial analysis of historical total cost versus expected future cost with a standardized, single source provider. The analysis determined that the company could generate cost savings of nearly one million dollars each year. By business process, SGNA estimated the following relative savings compared to their historical spending:

Figure 2: Projected Cost Savings



However, it's not just a matter of hard dollar savings; the right solution must also pay off in "soft" ways such as user acceptance and user goodwill. According to Dennis Wilson, he's heard nothing in the way of end user concerns since the company switched systems, which is unusual because the new program encompasses a larger footprint than the prior programs. "Transitioning vendors is often the hard part, but in this case it was pretty smooth," commented Mr. Wilson. "It has saved me time in constantly having to deal with user issues where functionality or a feature wouldn't work. It's alleviated the soft cost of internal customer support."

The Way Forward

Smart EHS teams are continuing to focus on core health, safety, and environment compliance programs, but are also starting to identify ways to participate strategically in the business. They are discovering ways to grow the top line, reduce costs, minimize risk, and find new markets, all of which support key corporate initiatives. This requires a shift from a pure compliance focus to a strategic, decision-making focus. If you look at what EHS is doing and can do to meet those objectives, you can start to line up EHS objectives with corporate business goals.

For Saint-Gobain North America, this involves working directly with the other core business functions such as research and design, marketing, manufacturing, and operations to understand the role that the product stewardship and EHS team can play in the business. Summarizing, Mr. Wilson states, "We're on the verge of something that is not just the focus for EHS, but the trend for business overall. Everybody is going to have to do it."

To learn more about Saint-Gobain North America's sustainability initiatives, you can download the "Building Our Environment Together" paper from their website: http://www.saint-gobain-northamerica.com/pdf/Building_our_environment_together.pdf.



SiteHawk offers a complete approach to SDS and chemical data management via web-based, user-friendly software and managed services. Organizations in virtually every industry utilize SiteHawk solutions to manage their hazard communication programs, meet regulatory and environmental compliance initiatives, manage chemical inventories, publish material safety data sheets, and keep workers safe throughout the organization. With customers spanning the globe, SiteHawk continues to lead the environmental health and safety industry in customer satisfaction with a greater than 98% customer retention rate.

The complete SiteHawk solution portfolio includes software and services for SDS management, SDS authoring, chemical inventory management, and environmental regulatory compliance. For more information on any of these services, please visit www.sitehawk.com.

Contact Information:

info@sitehawk.com

1.877.483.4295