



Shipshape hazmat inventory

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A foundation for success — company-wide

In the hazmat world today, most large organizations follow a time-honored process for identifying critical compliance needs and spend the money necessary to make it work. It is a process that tilts the compliance board to the advantage of the bigger players. The challenge today for organizations is to effectively manage their entire chemical inventory such that they can stay in compliance and avoid the dangers, fines and fees associated with not doing so.

It starts with a sophisticated purchasing or procurement system, usually with a module that enables EHS staff to review and approve all incoming hazardous items. Nothing arrives into a big company unnoticed. Next, the chemical or product is tracked through some type of bar code or RFID tagged inventory management system, and data on its location-specific usage is recorded.

Material safety data sheets (MSDS) are obtained and tracked, using a sophisticated document and data management system that is tied into procurement and chemical tracking. At the end of all this, compliance reports are generated and submitted, usually electronically. Then management plans are made or modified, staff are trained or retrained and the company moves forward safely until the next monthly review period.

No utopia

This utopian view of compliance management has been practiced for so long in so many high-profile companies that it has become the de facto process for managing compliance. In the world most EHS managers live in, however, the tools and resources just described do not exist. Companies today are forced to manage hazmat with limited budgets, staff, tools and systems.

Organizations need to create a new framework that takes into account the whole picture of hazmat compliance and its effect on the organization. Companies need to set their sights and marshal resources in one key area — an accurate hazmat inventory.

An accurate, up-to-date inventory of the pure chemicals, mixtures and products within the organization becomes the foundation upon which the company manages other critical data and turns that data into knowledge on the hazards present in each of its facilities. This knowledge, when applied on a geographical, functional and hierarchal level within an organization, helps EHS staff make better business decisions. This increases the value of the organization by reducing risk, cost and liability.

A good hazmat inventory improves the bottom line, and the basics are easy to understand and implement.

The inventory

How often. The frequency with which an inventory should be reviewed depends on the:

- size of the business and number of locations/departments that contain hazmat;
- sophistication of purchasing and approval processes, and;
- expected turnover of chemicals and other hazardous materials.

Ideally, a master inventory should be taken at least annually. Each new purchase or disposal should be tracked and the inventory modified throughout the year. Inventories from separate locations should be rolled up into a corporate-level inventory.

What data to record. At a minimum, the location of each product or chemical should be recorded, as well as the container size and quantity on hand of the material, the name of the product and manufacturer, and any part number or description assigned by the manufacturer.

Problems. Record any unlabeled, illegible or secondary labeled items in a separate discrepancy document, then physically flag the item itself with stickers or labels. Review the discrepancy document at the completion of the inventory process to determine appropriate actions such as re-identifying products and/or removing them from the facility.

Adding value

Once an accurate inventory is obtained, it is possible to begin to add value to each record by associating other data, documents or records with each inventory item and supporting this information with on-site EHS staff or outside resources to assist employees in use and interpretation. This is an important step in seeing the “whole picture.”

MSDS. Associate each item in the inventory with a readily available manufacturer-specific MSDS. Have a process for obtaining new or updated MSDSs as products change or as MSDSs go out of date.

Classification. Assign each item in the inventory a National Fire Protection Agency (NFPA) and Hazardous Materials Identification System (HMIS) rating, and classify the item for common modes of transport, whether by ground, air or vessel.

Shipping. Each item that is placed on a truck, boat, rail car or plane will need to have several pieces of data associated with it. Transport requires appropriately classifying, packaging, marking, labeling and placarding documentation for these materials. Classification involves identifying the transportation hazards associated with your inventory in accordance with 49 CFR HMR, IATA and IMDG Code requirements.

Cascading effects

The accuracy of the inventory has cascading effects within an organization, from specific EHS responsibilities, to employee well-being, management decision-making and corporate responsibility. If even ten percent of your inventory is inaccurate, the following issues may arise:

MSDS non-compliance. When needed, MSDSs will be unavailable or outdated. Valuable time and resources may be wasted acquiring and maintaining MSDS for products that are not even used or stored on-site. At the same time, if a company uses its MSDS files as its 30-year exposure record, it could include chemicals and products that were not actually used, thus increasing the company's potential liability.

Chemical exposures. On-site data may not be available for the chemicals to which an employee is exposed. If the data is provided, it may refer to a previous or generic version of the product, increasing the likelihood of mistreatment.

Transporting hazmat. Products may be improperly classified for shipment due to outdated information. This directly impacts the safety of the transporting vehicle, its driver and passengers, and hinders emergency crews responding to any in-transit incidents.

Disposal of hazardous waste. The designated budget for disposal costs may be inadequate if there are items being used and disposed/recycled that the company is unaware of. Contingency planning for emergency response will be incomplete.

Regulatory reporting. Sensitive chemicals (such as those that appear on SARA 302 Extremely Hazardous Substances List) may be excluded from required reporting. Items listed on the inventory but not actually used or stored on-site could trigger higher reporting thresholds and unnecessary higher fees.

Training and preparedness. An incomplete inventory can hamper employee awareness of the chemicals in their workplace, increasing the risk of exposure or injury and the related cost of treatment. Lack of related inventory data, such as MSDS and storage quantities, can also mean that all hazards are not properly evaluated.

A good start

Simply starting with an accurate inventory can result in more wins under your belt. By focusing efforts on gathering and analyzing the right information, EHS personnel can impact the cost for their organization to acquire, track, store, ship and dispose of hazardous materials and improve employees' hazmat understanding.

EHS departments are winning every day because they are looking at the right data and making good decisions. Strive to become one of them.

SIDEBAR: Not all inventories are the same

Having an inaccurate hazmat inventory leads to a number of problems. However, a company can also err by assuming that the inventories at all its sites or departments are the same. This can trigger another set of problems:

- Unavailable site-specific MSDSs;

- Company unprepared to respond to employee exposure or injury;

- Inadequately trained shipping personnel;

- Improperly labeled, packed and placarded shipments;

- Inadequate processes for handling specific waste streams;

- Inaccurate regulatory reporting;

- Improper employee training.