Special Interest Articles:

• Chairman’s Letter
• Legal Corner
• Safety
  o Safety Recalls and Alerts
• Ergonomics
• About Us

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Current Activities and Future Focus

Partnership with TAPPI

The Board of Directors has chosen TAPPI to provide executive director services for PPSA. This is an exciting development for both groups. The agreement with TAPPI provides PPSA access to significant professional resources to support our organizational objectives including:

- Delivering an annual professional safety conference which provides value to our members and vendors.
- Partnering with key trade associations to provide:
  - Safety- technical expertise within the forest products industry and to PPSA members.
  - A network of health & safety professionals to benchmark with and share best practices.
  - Accurate and timely statistical data for company and member comparisons.
- Providing:
  - A mechanism for timely sharing of incident learning’s and industry best practices to promote injury-free workplaces.
  - Safety and regulatory updates which identify critical issues and opportunities for our industry.
  - Comments as appropriate on pending OSHA regulatory changes which will impact our industry.
  - Training seminars covering topics of interest to our members.
  - Opportunities for members to interface with vendors who provide quality products and new to market services for our industry.
  - A web site which provides a focal point for PPSA information.
  - The ability for members to connect with each other beyond attending the yearly conference (watch for additional information on this topic!)
- Executive support for the PPSA Board of Directors
  - With day to day task being administered by TAPPI, the PPSA Board of Directors will be able to focus even more attention on members and their relationships with PPSA.
  - PPSA will remain a completely independent association and is not a part of TAPPI. However, aided by TAPPI’s reach PPSA can benefit from regular inclusion in TAPPI’s publications such as Paper 360(degree) which is distributed in both print and electronic form to 40,000 people.
We’re proud of this partnership and the partnerships we have with other associations in our industry. It’s often said, but it remains true – together we can achieve more. This win-win arrangement will allow PPSA to add new products and enhance member value, increase our reach, and most importantly continue to provide the leadership that helps the industry return home safely.

**Change in Chairperson**

Marty Barfield the 2012/13 Chairman of the Board of Directors has accepted a challenging new position within his company DOMTAR - Mill manager of the Plymouth N.C. Fine Paper mill. As a result he has to forego his role of Chairman. Board members would like to recognize Marty for his contributions to the PPSA over the years and wish him well in his new endeavors. I will act as interim chairman until June of 2013.

**2013 Conference**

Planning is underway for the 70th Annual PPSA Safety & Health Conference being held at the Williamsburg Lodge in historic colonial Williamsburg, VA, June 9 -12, 2013. Book the dates on your calendar now, the theme for the conference will be "The Human Element of Safety”. More details on the conference programming will be provided shortly.

**Training Seminars.**

**PPSA/TAPPI Safety Management Course Completed**

On August 15 and 16, the PPSA and TAPPI collaborated to present a two day Safety Management Course in Atlanta, GA. The initial class had 24 class participants and, based on class participant critiques, was a huge success. Seven PPSA/TAPPI member companies made up the 24 class attendees. One class participant remarked…'this is the best safety fundamentals course I have ever attended’. Another advised ‘this would be a great course for all of our front line supervisors’. The course instructors included senior safety professionals from RockTenn and Weyerhaeuser as well as Thomas Evans, President of Training Logic, Inc. of Ruston, LA. Course chairman Matthew Kanneberg of RockTenn shared a few comments…‘this collaboration was a huge success and thanks to great feedback, we will make the next session even better’. We plan on a second class offered in Atlanta within the first quarter of 2013. It will continue to be advertised as a safety management fundamentals course with target audience of management, front line supervisors and entry level safety and health professionals.

**General Chairperson – PPSA, Chris Redfearn.**
Significant Near Miss Involving a Fiberglass Extension Ladder

Ladder Inspections - Why they are so Important

Two roofing technicians were going on to a flat roof to perform an inspection and repair. The first technician set up a 30 foot extension ladder to access the roof. The ladder was a Type IA Fiberglass ladder rated for a load capacity of 300 pounds. The technician weighed approximately 160 pounds. The ladder had been inspected and was less than 2 months old. The ladder had not been damaged or subjected to any harsh conditions.

As the technician was climbing the ladder he felt the ladder start to give from underneath him. He was able to reach and hold on to the roof edge as the ladder collapsed. The second technician was able to get another ladder from their service truck, set the ladder up and get the first technician down safely without incident.

Ladder collapsed – worker was able to grab on to the leading edge of the building
The lower section of the ladder failed.
Investigation
All fiberglass ladders were immediately brought in from the field and closely examined for any possible defects or damage. The company found that on approximately 20% of their fiberglass extension ladders there were very small cracks in the fiberglass on the siderails immediately next to the rungs of some ladders.

![Image of a ladder with small cracks indicated]
In addition to the small cracks in the fiberglass in some areas the fiberglass material had split.

**Follow-up**
The small cracks found in the siderails of the extension ladders were not noted to be in any pattern along the siderail. The cracks and splits in the fiberglass were found to be immediately next to the rungs on the outside portion of the siderail.

Currently it is believed the fiberglass may have been damaged or fatigued during the manufacturing process when the rungs were crimped into the siderail of the ladder.

**Recommendations**
The small cracks around the rungs are not easily detected by a quick visual inspection. Workers need to ‘feel’ with their finger tips for any raised spots in the fiberglass and remove any debris along the side rails in the areas where the rungs are crimped to check for small cracks or splits. The cracks were not found in any pattern or specific location on all the ladders inspected. It is important to inspect each rung on both the exterior and interior side of the siderail for any signs of cracks or splits in the fiberglass.

Any fiberglass ladder with these small cracks should be removed from service.
**SAFETY NEWS FLASH**

**Status:** Recordable Injury  
**Incident Type:** Recordable Injury / Metal Chip imbedded over left eye  
**What Happened:**

The Section Crew was replacing a switch point on 7 Yard and had cut off the heads of the bolts on the heel cast. The bolts were about 10" long. One employee was holding a thumb saver on the end of the bolt, while the injured employee struck the thumb saver to knock out the bolt from the heel cast. When he struck the thumb saver, a chip broke off from his maul and flew up, striking him above the left eyebrow. The chip became imbedded and had to be surgically removed at the local hospital.

All employees were wearing proper PPE.

**Follow-up:**

Safety Stand Down Meeting held that day.  
Purchased a new hammer as a thumb saver with a rubber cover on the head to prevent chipping hazard. Will also purchase new dead blow maul. All thumb saver hammers will be replaced with the new style, and after testing the dead blow maul, a new SOP will be developed identifying the proper tool to use for driving out bolts.
Possible cause shows chip in face of hammer after investigation.

Metal piece removed from employee matching chip in hammer.

New thumb saver hammer with protective chip cap.

New dead blow maul.
PRODUCT RECALL / STOP USE NOTICE

3M™ Series Self Retracting Lanyards

AFFECTED MODELS IDENTIFIED ON PAGE 2

Affects a Selection of Products with a Manufactured Date Range of
November 01, 2011 to June 25, 2012

July 12, 2012

Dear 3M Customer:

3M is recalling a selection of the THOR family of Self-Retracting Lanyards units manufactured by IKAR from November 01, 2011 to June 25, 2012 (M-, RLD- and 205G- Series) as result of concerns with the brake pad material found in this family of retractable lanyards.

3M was recently informed by IKAR GmbH, that their supplier of the brake pad material used in a selection of the THOR family of 3M Self-Retracting Lanyards had experienced a process quality issue in the manufacture of the brake pads that could potentially affect the performance of those units. Specifically, the affected units may fail to properly arrest a fall, and ultimately, in a small number of instances, lead to the total disengagement of the lifeline assembly from the drum and housing assembly.

IKAR, in conjunction with the supplier of the brake pad, has determined that a relatively small number of defective brake pads may have been received by IKAR and used in a selection of cabled self-retracting lanyard units manufactured by IKAR from November 01, 2011 to June 25, 2012. See the list of affected product numbers in the table on page 2. Additionally, IKAR has advised 3M that this brake pad material is also present in competitive products that IKAR produces and distributes globally. IKAR has confirmed notification of all appropriate distributors that may have purchased equipment demonstrating this potential issue.

Given the extreme applications requiring the use of this equipment, and the high expectations that 3M has for the performance of these products, 3M and IKAR have concluded that an involuntary recall is required to recover potentially affected product from the field.

Users of the affected models listed in the table should stop using the product immediately.

We request that the following steps be implemented by your company:

1. Immediately stop use and quarantine all inventory of affected products identified on page 2 of this document.

2. Return all affected units directly to the 3M Fall Protection Product Distributor where you purchased the affected units.

Upon distributor confirmation of model number, manufacture date range and serial numbers to 3M that the units returned are affected by this recovery notice, 3M will priority ship a new replacement unit of equal or greater value at no charge.

3M remains committed to providing quality products and services to our customers. We apologize for any inconvenience that this situation may cause you.
Thank you for your continued support and use of 3M products and services.

Robert Weber  
Global Quality and  
Regulatory Manager

Jack Cardwell  
US Sales and Marketing Director

**AFFECTED PRODUCT MODEL NUMBERS**

**Manufacture Date Range on Products November 01, 2011 to June 25, 2012**

Recall affects only a certain number of products manufactured between this date range, please contact Bobbie Klutz 704-743-2401 at 3M for information on the specific serial numbers being recalled from products within this date range.

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<th>SERIES</th>
<th>UPC No.</th>
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SAMPLE LABEL DATA

Self Retracting Lanyard
Model#: M-40
3M ID: 7003762106
Serial#: 604253
Length: 40 Ft
Date of Mfg: 07/02/12
Weight: 12.9 Lbs

SRL UNIT RECALL RETURN SHIPMENT FORM
Manufacture Date Range on Products November 01, 2011 to June 25, 2012

THIS FULLY COMPLETED DOCUMENT MUST BE INCLUDED WITH EACH RETURN SHIPMENT IN ORDER FOR PROCESSING

PLEASE SHIP ALL SRL UNIT RETURNS VIA UPS GROUND SHIPPING
ACCOUNT NUMBER: 0553WV

Date SRL Units Were Returned to 3M: ___________________________________________________________________

Distributor Information
Name: ___________________________________________________________________________________________
Address: _________________________________________________________________________________________
Phone: __________________________________________________________________________________________

Customer Information
Name: _________________________________________________________________________________________
Address: _________________________________________________________________________________________
Phone: __________________________________________________________________________________________

Product Information
Quantity Shipped: ________ Model Numbers: __________________________________________________________________________
Serial Numbers: ___________________________________________________________________________________

Please use reverse side of this page to record additional quantities, models and serial numbers.

SHIP THIS FULLY COMPLETED FORM AND ALL 3M SRL AFFECTED UNDER RECALLED PRODUCTS TO:

3M COMPANY
ATTN: Bobbie Kluttz – SRL Product Recall
4451 Raceway Drive South West
Concord, NC 28027
Here is a Safety Alert from one of our members.

SAFETY BULLETIN

Subject: Faulty Safety Harness

There has been significant defect found in a Miller safety harness in the industry. The webbing is improperly laced behind the plastic piece that holds the back “D” ring. These harnesses were manufactured on June 6, 2012.

ACTIONS REQUIRED:

1. ALL WORKERS USING SAFETY HARNESSSES MUST VERIFY THEY ARE CONFIGURED CORRECTLY (use photo below as a reference).

2. If any defective harnesses are found return them to the tool crib and notify your supervisor.

CORRECT

INcorrect

D-ring is behind the webbing

D-ring is only held by the plastic
PPSA learned of this incident recently, which is one that our members may not know about.

**Construction Incident**

**Date:** April 1, 2009 @ 2:15 PM

**Description of Incident:** An ironworker while installing a diagonal cross member of iron was thrown from his SkyJack scissor lift (Model #3226) when the lift he was working on was blown over by a strong gust of wind. The work location was 32’ high with the lift height at approximately 25 high (full extension is 26’). The incident occurred just as the Ironworker was going to install his initial bolt connections at the work location. At that moment, according to all witnesses and the post incident investigation, a strong gust of wind came through knocking over the lift. The Ironworker was thrown over the lift’s backside guardrail and fell along side the lift with both the Ironworker and lift striking a grouted masonry wall 15’ below the work location.

**Injuries:** Broken ribs (3), deflated lung, elbow lacerations, liver contusion - (LOST TIME). The employee was released from the hospital on April 3, 2009.

**Key Point Summary**

- The subcontractor told the equipment rental company that it needed two scissor lifts to reach approximately 25 feet and that they needed to be used for outside steel erection on an elevated slab with load restrictions. The equipment rental company delivered two SkyJack scissor lifts (Model #3226) to the work area and trained the workers on use of the lift.
- SkyJack’s Technical Support Department was contacted as part of the investigation. Their representative indicated that the SkyJack scissor lift (Model #3226) is a narrow based lift and built for indoor use only. The maximum wind load for this lift is zero.
- The ironworker was using proper personal fall protection (harness and lanyard) and was secured to the manufacturer’s attachment point in the lift. As a result, he was left hanging from his lanyard and harness on the outside of the wall never striking the ground. His co-workers cut him out of the harness.
- No apparent mechanical failures occurred with the scissor lift.
- According to Weather Underground at Metro Airport at the time of the incident, wind conditions were steady at 23 MPH with gusts to 37 MPH.
- The Walbridge required plans for this operation were in place for the work being performed; both operators were aerial lift trained; 100% fall protection was being used; Crane Action Plan was in place; and Pre-Task Analysis was completed.

**Key Learning Points**

- The wrong scissor lift for the tasks being performed was provided by the equipment rental company.
- The maximum wind load information for aerial lifts is located on the serial number plate on the lift. This needs to be checked on all lifts before they are put into use on the project.
- Outdoor aerial lifts generally have a maximum wind speed rating of 28 MPH on the Serial Number Plate. **This information is not referenced in the Equipment’s Owner manual.** The owner manual references “Do Not raise your platform in gusty or windy conditions.”
- All Walbridge projects require the use of 100% tie off when operating any aerial lift. Based on the circumstances of this incident, the employee would have struck the ground if he wasn’t tied off to the proper attachment point using a harness and shock absorbing lanyard. All devise were removed from service.
- It’s important to have an Emergency Response and Crisis Management Plan in place to help assist in a smooth response. The EMS arrived at the project within 5 minutes of the 911 call. As Part of the Emergency Response Plan and Crisis Management Plan, the Corporate Safety Department must be notified ASAP.
OSHA Addresses Fall Hazards

Assistant Secretary Dr. David Michaels addresses National Safety Council annual conference, discusses fatal falls

At this year’s National Safety Council annual conference in Orlando, Fla., on October 23, Dr. Michaels delivered a keynote address in which he praised employers who have comprehensive injury and illness prevention programs, outlined current OSHA initiatives and presented promising new data about reduced fatalities from falls in residential construction.

Dr. Michaels was joined onstage at NSC by John Howard, director of the National Institute for Occupational Safety and Health, to discuss the two agencies’ joint efforts to prevent fatal falls through their national fall prevention campaign.

Updated training and educational resources available from OSHA’s Fall Prevention Campaign website

Plan. Provide. Train. These three simple steps can prevent falls and save lives. OSHA’s fall prevention campaign website provides several training resources and educational resources to assist workers and employers in preventing falls from ladders, scaffolds and roofs. These pages have been updated with additional materials from OSHA’s campaign partners, including new Spanish-language resources on ladders and other equipment.

To order these or any of OSHA’s fall prevention materials, call OSHA’s Office of Communications at 202-693-1999 or visit OSHA’s Publications page.
GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELING OF CHEMICALS (GHS)

By Tom Campbell, Global Portfolio Manager – Safety & Compliance, Brady Corporation

Last updated: July 2011
Introduction: Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

The GHS, or Globally Harmonized System of Classification and Labeling of Chemicals, grew out of a 1992 United Nations environmental conference and was formalized in 2003. The GHS aims to harmonize the way nations classify and label their hazardous chemicals across the globe.

In the United States, the GHS’s goals are in the process of being incorporated into the Occupational Safety and Health Administration’s (OSHA) Hazard Communication Standard (HCS; CFR 1910.1200). The HCS covers more than 945,000 hazardous chemicals in 7 million U.S. work sites; the revisions will have a sweeping effect, most specifically on the Material Safety Data Sheets (MSDS) and warning labels that come with the purchase and use of most chemicals. These MSDS, to be referred to as SDS’s in the future, and labels give workers the “right to know” about chemical hazards they are exposed to, along with instructions for care in handling and for post-accident responses.

The GHS calls for standardized (new) formats and information requirements for the data sheets and for the employment of more universal pictograms to convey important messages in multilingual environments. These revisions most directly affect the manufacturers and distributors of chemical products, but they also place new requirements on employers for effective workplace policies and retraining of personnel to learn the new standards.

What is the GHS?

The GHS is a system for standardizing and harmonizing the classification and labeling of chemicals. It is a logical and comprehensive approach to:

- Defining health, physical and environmental hazards of chemicals;
- Creating classification processes that use available data on chemicals for comparison with the defined hazard criteria; and
- Communicating hazard information, as well as protective measures, on labels and Safety Data Sheets (SDS).

The GHS itself is not a regulation or standard. The United Nation’s GHS Document (referred to as “The Purple Book”) establishes agreed-hazard classification and communication provisions with explanatory information on how to apply the system. The elements in the GHS supply a mechanism to meet the basic requirement of any hazard communication system, which is to decide if the chemical product produced and/or supplied is hazardous and to prepare a label and/or Safety Data Sheet as appropriate.

Regulatory authorities, such as OSHA, in countries adopting the GHS thus have the ability to take the agreed criteria and provisions and implement them through their own regulatory process and procedures, rather than simply incorporating the text of the GHS into their national requirements.

Why is the GHS needed?

The production and use of chemicals is fundamental to all economies. The global chemical business is more than a $1.7 trillion per year enterprise. In the U.S., chemicals are more than a $450 billion business and exports are greater than $80 billion per year.

The sound management of chemicals should include systems through which chemical hazards are identified and communicated to all who are potentially exposed. These groups include workers, consumers, emergency responders and the public. It is important to know what chemicals are present and/or used their hazards to human health and the environment, and the means to control them.

Before GHS, many countries already had regulatory systems in place for these types of requirements. These systems may have been similar in content and approach, but their differences were significant enough to require multiple classifications, labels and safety data sheets for the same product when marketed in different countries or even in the same country when parts of the life cycle are covered by different regulatory authorities. This led to inconsistent protection for those potentially exposed to the chemicals and created extensive regulatory burdens on companies producing chemicals.
The International Mandate

The single most important force that drove the creation of the GHS was the international mandate adopted by the 1992 United Nations Conference on Environment and Development (UNCED), often called the “Earth Summit.” The harmonization of classification and labeling of chemicals was one of six program areas that were endorsed by the United Nations General Assembly to strengthen international efforts concerning the environmentally sound management of chemicals.

Benefits of the GHS

There are significant benefits associated with the implementation of a globally harmonized approach to hazard communication. Countries, international organizations, chemical producers and users of chemicals will all benefit.

First and foremost, implementation of the GHS enhances protection of people and the natural environment where potential exposure to chemicals exists. While some countries already have the benefits of protection under existing systems, the majority of countries do not have such comprehensive approaches. Thus, implementation of the GHS provides these countries with the important protections that result from dissemination of information about chemical hazards and protective measures.

In the U.S., the adoption of the GHS improves and builds on protections OSHA already has with its Hazard Communication Standard. Refinement of the information provided will help to improve comprehensibility and thus make it more likely that the information results in workplace changes to protect employees. As has already been noted, the majority of affected employers and employees will benefit from incorporation of the primary GHS elements. They’ll receive better, more standardized and consistent information about chemicals in their workplaces.

Secondly, the GHS facilitates international trade in chemicals. It reduces the burdens of having to comply with differing requirements for the same product, and it gives companies more opportunity for international trade. This is particularly important for small producers who may have previously avoided international trade because they did not have the compliance resources required to address the extensive regulatory requirements for classification and labeling of chemicals.

Third, one of the initial reasons this system was pursued internationally involved concerns about animal welfare and the proliferation of requirements for animal testing and evaluation. Where existing systems have different definitions of hazards, it often results in duplicative testing to produce data related to the varying levels of toxicity or cut-offs used to define the hazards in the different systems. The GHS reduces this duplicative testing. (It should be noted that OSHA has no testing requirements. The HCS is based on collecting and evaluating the best available evidence on the hazards of each chemical.) In all countries, there is a need to acquire sufficient information to properly handle the chemical when it is imported from other countries. Thus having a coordinated and harmonized approach to the development and dissemination of information about chemicals is mutually beneficial to both importing and exporting countries.

The GHS benefits for U.S. producers

In the U.S., the four primary regulatory agencies (OSHA, EPA, CPSC, and DOT) that are responsible for GHS implementation are not domestically harmonized in terms of definitions of hazards and other requirements related to classification and labeling of chemicals. Since most chemicals are produced in a workplace and shipped elsewhere, every manufacturer deals with at least two of the U.S. systems. As such, every producer is likely to experience some benefits from domestic harmonization of GHS, in addition to the benefits that will accrue to producers involved in international trade.

OSHA believes that adoption of the GHS also addresses some of the issues that have been discussed in the U.S. regarding the HCS and its implementation, such as improving labels and SDS comprehensibility through implementation of a standardized approach. Having the information provided in the same words and pictograms on labels, as well as having a standardized order of information on SDSs, helps all users identify the critical information necessary to protect employees.

Scope of the GHS

The GHS covers chemicals in various stages of their life cycle, from production to disposal. It is based primarily on the hazards of chemicals. The GHS is designed to allow regulatory authorities to choose provisions that are appropriate to their particular scope of regulation. This is referred to as the “building block approach.” The GHS includes all of the building blocks or possible regulatory components that might be needed for classification and labeling requirements in the workplace as well as for regulation of classification and labeling of pesticides, chemicals in transport, and consumer products.
The building block approach may also be applied in other ways when deciding which parts of the system to adopt. For example, the GHS includes classification criteria, labels, and SDSs. While workplace authorities like OSHA adopt all of these elements, it is expected that consumer product authorities will not have SDS requirements, nor will transport authorities.

The building block approach may also be applied to the criteria for defining hazards. For example, the acute toxicity criteria are much broader than those in the original HCS for workplace exposures. This is to provide consumer product authorities the tools they need to address the protection of children who might accidentally be exposed. Conversely, OSHA may not need to adopt all of the categories of acute toxicity in order to protect employees from the types of exposures they have.

In addition to the building block approach, the GHS also contains a number of areas that are left to the competent authority to determine how to apply the provision. Where OSHA is the competent authority, i.e., in terms of workplace protections in the U.S., the agency expects to maintain its current approaches in terms of interpretations and accommodations regarding application.

Overall, the scope of the GHS with regard to chemicals covered, as well as types of chemicals and workplaces that are covered, is very similar to the HCS. The HCS has a very broad scope of coverage, ensuring that information is provided on all potential hazards in American workplaces. Adoption of the GHS maintains this broad coverage of hazards and chemicals. It should be noted that the GHS, like the HCS, does not require any new testing of chemicals. Evaluations of chemical hazards are to be based on the best available evidence.

The Biggest Difference between HCS and GHS

The original HCS requirements for labels simply indicated the minimal information required to be on them. At the time the standard was published, OSHA reviewed the current industry consensus standards for labels, and focused on requiring information that was not generally present on most labels in use by the industry. The additional information included an identity that could be traced to more detailed information, and specific information about both the health and physical hazards. Other types of information such as precautionary statements were not included in the requirements.

This performance-oriented approach was strongly supported by the chemical industry at the time the standard was adopted. It allowed existing labels to continue to be used in many situations, thus minimizing the impact on a number of producers.

However, an ultimate outcome has been that various supplier / organizational labels are not consistent and may not communicate adequately to users. While some producers follow voluntary industry consensus standards, others do not. Many large companies have developed their own libraries of phrases to be used on labels and safety data sheets, and undertaken translation of them into multiple languages. This is a considerable burden for a company to develop and maintain.

Other major existing systems considered in the harmonization process included specific label phrases to convey hazards and other information. Symbols and pictograms were also part of these systems. For purposes of developing an agreed upon harmonized approach, it was necessary to consider including such elements in the GHS.

For each class and category of hazard under the GHS, there is a harmonized hazard statement, a signal word, and a pictogram specified. This is referred to as the core information for a chemical. Thus, once an employer classifies a chemical, the GHS provides for the specific core information to convey to users on that chemical. There are provisions to allow supplementary information as well so the chemical manufacturer is not limited to the specified core information. This addresses product liability concerns for U.S. employers and ensures they can include other information they consider to be necessary for that purpose.

Precautionary statements are also provided as examples in the GHS, but they have not yet been agreed upon and harmonized. This is expected to occur in the future as work on the system continues. These and several similar labeling provisions or exceptions will likely be the biggest difference between the updated HCS and the GHS.

There are a number of benefits to this standardized approach. First, employers and employees are given the same information on a chemical regardless of the supplier. This consistency improves communication of the hazards. It also improves communication for those who are not functionally literate, or who are not literate in the language written on the label. Literacy of both types is a significant concern in American workplaces.

Secondly, having the core information developed already, translated into multiple languages, and readily available to whoever wishes to access it eliminates the burden of chemical manufacturers and importers developing and maintaining their own such systems. Thus, the specification approach should be beneficial both to the producers and the users of chemicals.
Specific Labeling Requirements

Under the HCS, the SDS (see samples above) is the detailed reference source on the chemical. While labels provide a quick snapshot to remind employers and employees of the hazards of the chemical, the SDS addresses all aspects of hazard information as well as methods for handling and use. The HCS specifies what information must be included on the SDS, but currently does not specify a format or order of information. Again, this approach was supported by producers to minimize the impact of the standard for those who already developed and disseminated (M) SDS’s.

Safety data sheets under the current HCS regulation are required to include:

- Identification of the chemical or hazardous ingredients of a mixture
- Physical and chemical characteristics
- Health hazards, including signs, symptoms, and medical conditions that could be aggravated by exposure
- The primary routes of entry
- The OSHA permissible exposure limit, ACGIH (American Conference of Governmental Industrial Hygienists) Threshold Limit Value, and any other recommended exposure limits
- Whether the chemical is considered to be a carcinogen by OSHA, the International Agency for Research on Cancer, or the National Toxicology Program
- Precautions for safe handling and use
- Control measures
- Emergency and first aid procedures
- Date of preparation of the safety data sheet
- Contact information for the responsible party

Users of chemicals have always preferred a standardized approach. Many believe that having the information in the same place on every data sheet allows them to access it more effectively. OSHA published a request for information regarding ways to improve the information provided under the HCS (55 FR 20580; May 17, 1990), and received approximately 600 comments in response. The majority of the responses were in favor of a standardized format or order of information.

As a result of the users’ expressed preferences, chemical manufacturers in the U.S. developed a voluntary industry consensus standard that included an order of information for safety data sheets (ANSI Z400.1). This approach was later adopted into international voluntary industry consensus standards as well.

The HCS allows any format to be used; so many producers have been following the consensus standard order of information for some years. In negotiating the GHS, it was decided that this format should be adopted there as well. One change was made, reversing the order of sections 2 and 3 so the hazard information appeared earlier in the sheet than information on chemical composition. Both the national and international industry consensus standards are being changed to be consistent with this approach.

The GHS data sheet is to include the following sixteen sections in this order:

- Identification
- Hazard identification
- Regulatory information
- First aid measures
- Firefighting measures
- Accidental release measures
- Handling and storage
- Exposure controls/personal protection
- Stability and reactivity
- Physical and chemical properties
- Toxicological information
- Ecological information
- Disposal considerations
- Transport information
- _Composition/information on ingredients
- Other
Having a standardized order of information improves comprehensibility, which has been a continuing issue with regard to safety data sheets. It makes it easier for chemical producers to comply by providing them with a template to follow. Using the industry consensus standards also minimizes the burden of preparing new safety data sheets since many chemical producers already use the format specified. While the GHS safety data sheet does not address exposure limits in the titles of the sections, guidance on what should be included indicates that occupational exposure limits would be addressed under the “exposure controls” section. Countries may choose what to require in these sections in terms of occupational exposure limits.

Under the auspices of the International Program on Chemical Safety (IPCS), a series of more than 1,300 international chemical safety cards has been developed and translated into 14 languages. These cards are developed and peer reviewed by participating institutions in a number of countries, including the National Institute for Occupational Safety and Health (NIOSH) in the U.S. The cards are similar to SDSs in terms of the information provided, but they are in a concise format of two pages. The cards are going to be updated to reflect the GHS criteria and hazard information. These may be found on NIOSH’s Web page at: http://www.cdc.gov/niosh/ipcs/nicstart.html.

OSHA also has a link to them on its hazard communication page. These cards are an excellent resource for many of the most common chemicals found in the workplace.

As mentioned earlier, there is information required on a GHS SDS that is outside OSHA’s jurisdiction to regulate, specifically sections twelve through fifteen. This includes environmental and transport information. OSHA does not intend to propose requiring it on safety data sheets, but will provide information about the provisions so chemical producers can include it if they wish to be completely consistent with the GHS. OSHA does not preclude such information being on a safety data sheet, but will not review or enforce the provisions of these four sections.

What to Keep In Mind with GHS

This personal guide is intended to help you understand and meet your obligations under OSHA’s evolving Hazard Communications Standard (HCS), which going forward will be adapted to harmonize with the GHS.

This important information for your knowledge and understanding about GHS was researched and compiled from Occupational Safety and Health Administration rules and regulations and from source materials on the GHS itself.

Most important features of the GHS to remember when you are addressing Hazardous Communications requirements and best practices are:

- The origins of the GHS and what its purpose is
- The International Mandate that informs OSHA’s HCS
- What the HCS is and what benefits it offers
- SDS and labeling requirements under the GHS
- Differences between the GHS and the HCS
- Examples of GHS labels and pictograms

For More Information:

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- **Keep your elbows at your sides or in front of you.**
  - Forces are minimized on the shoulder when you perform work with your elbows resting by your side.
  - If you must work with your elbows away from your sides, keep your elbows in front of you (do not flap your elbows like a chicken when doing repetitive work).

- **Keep your elbows below shoulder height.**
  - Blood flow is restricted and joint wear and tear dramatically increase when your elbows are maintained over shoulder height.
  - Mechanically, the major push/pull muscles are unable to help very much when the arms are overhead and the rotator cuff works overtime. The only strong movement is to pull down toward the body.

- **Keep loads close to the body.**
  - Remember, the upper arm is a weight and a lever.
  - Holding a weight away from the body creates added force on the shoulder through weight multiplied by the distance.
  - The load on the shoulder increases dramatically the further out the weight is held.

---

**At Risk**

This worker is unsteady with his feet on different rungs making it difficult to stabilize with his abdominals. His shoulder isn't used with his arm turned in and elbow above shoulder height while producing an upward movement.

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