

**GHS: A Turning Point in the Way That Chemical Hazard Information  
is Communicated**

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## **Introduction**

As human kind progress and improve their way of living, the use of chemicals has been a great factor of that progress. But alongside the benefits of these chemicals, there is a great threat or effect to people and the environment. With this, the countries around the world have developed a way of protecting the lives of the people through laws or regulations that require information to be prepared to those using chemicals, through labels or safety data sheets (United Nations, UN, 2011). In the past, different countries have their own way of classifying and labeling of chemicals but the 1992 UN Conference on Environment and Development have mandated a Globally Harmonized System of Classification and Labeling of Chemicals (GHS) which was then endorsed by the 2002 World Summit on Sustainable Development (WSSD) and the Intergovernmental Forum on Chemical Safety (IFCS) (US Environmental Protection Agency, 2004). According to the Society for Chemical Hazard Communication (SCHC, 2010), GHS is a worldwide system used for harmonizing hazard classification criteria and chemical hazard communication elements. Many would think that GHS is a regulation, but it is not. It is just a basis or guide for classifying and labeling different hazardous chemicals.

## **Purpose of GHS**

Classification and labeling of different hazardous chemicals have been placed with regulations by many countries. According to Kevin Gofron (2014), even though it is a help to their own countries, the differences in labeling requirements around the world are so significant that a single chemical may require a lot of different classification, labels and safety data sheets depending on where it's made or transported to around the world. He also said in his study that with the different way of classifying and labeling on different countries, it is possible that this variability will leave room for errors as chemicals are transported and it will also create a lot of

regulatory burdens to the chemical producers. In some countries, there are a lot of regulatory authorities, thus creating different guide in the same country. This will lead to an inconsistency in protection for those people who are potentially exposed to the chemicals as it is used, transported and disposed. A single chemical may have been following the different regulation or laws in different countries and it may have a lot of similarities in different aspects, but there is also a possibility of a different label or safety data sheet (SDS) in different countries. Through the variations of the regulations on the chemical hazards, a chemical may be considered to cause cancer in one country but not on a different country. Or it may be considered flammable to one country but not in another. Given the reality that there is an extensive trade on these hazardous chemicals and the need to develop a national program for the protection of people, it was recognized that there is a need for an internationally harmonized approach for the classification and labeling of the said chemicals (UN, 2011).

### **Benefits/Advantages of GHS**

The basic goal of the system is to let people take protective and preventive measures for their health and safety. This is done by ensuring the people working with chemicals and those on the public with adequate, practical, reliable, and comprehensible information about the hazards of chemicals. The implementation of the system will benefit the government, companies, workers, and members of the public (Occupational Safety and Health Administration, n.d.).

There are many reasons for setting the objective of harmonization on chemical information and it is anticipated that when GHS is implemented, there will be a lot of benefits. The first benefit that we will see is the enhancement on the protection of human health and the environment. It is done by providing an internationally comprehensible system for hazard

communication (UN, 2011). There will be an increase in the quality and consistency of the hazard information which will help protect the people who handle the chemicals (Gofron, 2014).

The countries without existing regulations about the chemical hazards will be provided with a recognized framework to develop regulations. It is a lot of help to those countries since developing and maintaining a classification and labeling system is not an easy task. By using the GHS, there will be fewer burdens on the nation and an efficient action plan can be created.

With the help of GHS, there will be a facilitation of identifying hazards internationally. There will be a lot of basis for claiming that a chemical has a certain level of hazard. It will save time and be more efficient than testing and evaluating multiple classification systems. The different classification and labeling of a single chemical can then be cleared and revised to a single and international basis.

The government will be one of the major beneficiaries of the implementation of GHS. There will be fewer chemical accidents and incidents when GHS is used internationally, because there will be an extensive decrease in confusion and error in the information about a certain chemical. The effect of a decrease in accidents and incidents can also lead to the decrease in the public health care cost. In a certain country where the chemical incidents are low, the health care cost will also be low since there is a lower risk for the spread of diseases, poisons and infections that are caused by the chemicals. With an international regulation or system, we will be able to avoid the duplication of effort in creating a national system. With the avoidance of this redundancy, the government will be able to focus on others matters. The cost of enforcing the system will also reduce since it is now an international standard which the companies and manufactures should follow. With the use of GHS, the government will earn an improvement in its reputation on chemical issues because of the tangible benefits said before.

The implementation of GHS will also benefit the companies that are using and interacting with chemicals. Their employees will have a safer work environment. The use of GHS as a standard will allow the employees to be knowledgeable enough to prevent incidents from happening. There will also be an increase in efficiency and reduced cost from compliance with hazard communication regulations. Following an international standard or regulation will give the company a high reputation, thus decreasing the cost of maintenance and inspection from regulatory agencies. The decrease in labor and cost is one of the major priorities of a company, thus having an expert system will result in maximizing the efficiency, maximizing the expert resources, and minimizing the labor and cost of the company. The improvement of the health and safety of the company will lead to the fewer cost in accidents and disease spread. Another major benefit of GHS in companies is the improved corporate image and credibility.

### **Disadvantages of GHS**

Although GHS is seen to be very beneficial to a lot of people, there are also disadvantages that come with it. With the adaptation of a new system, the hazard criteria, classification processes, label elements and safety data sheet requirements will need to be modified to be consistent with the new system, the GHS. There will be a lot a work for changing the system used, all of the hazard communication system need to be changed. In countries without existing regulations, there are a lot of problems that will be faced; there is a question about the appropriate legal framework that should be used for implementing the GHS. It is also a problem to them on what government agencies should be involved. A lot of change is needed in implementing the GHS, and many agencies are not ready yet for those changes. The major disadvantage of implementing the GHS is on the compliance obligations for producers of hazardous chemicals (SCHC, 2010).

## Issues on GHS

There are a lot of issues that concern the implementation of GHS. One of them is about the protection of the confidential business information (CBI). According to the United Nations (2011), there are specific provisions that should be followed for the protection of CBI. This is due to the difference in the systems accordance with the national law and practice. The CBI is limited to the names of substances, and their concentration in mixtures, unless asked by the authority. It is in the company's decision to withhold the confidential information's of the company as long as it does not compromise the health and safety of the workers and the consumers, or the protection of the environment. If a system chooses to provide the protection of CBI, it is in the will of competent authorities to establish appropriate mechanisms which follows the national law and all of its practices (Occupational Safety and Health Administration, n.d.).

Another issue concerning the implementation of GHS is the impact of pictograms and signal words on the product design and the product selection on the marketplace. All existing hazard communication systems need to be changed due to the implementation of GHS. It includes the adaptation of new label elements (SCHC, 2010). With the hazard communications, the companies should modify all of their designs in accordance to the systems. The modifications that will be made will cost the companies a lot. The product selection in the marketplace will be a lot of burden to the consumers and the manufacturers. Although the consumers or buyers will be able to see the hazard communications more clearly, there will be a lot of confusions due to the change in hazard communication. Those not knowledgeable enough about the new system will face a hard time deciphering the symbols. Changes in the system really have a lot of issues following it.

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