

UN Globally Harmonised System, EU Classification, Labelling & Packaging Regulation

Background

Chemicals are used by people every day and impinge on everything we do. The soap we use in our shower is a mixture of chemicals, the fuel in our car is a mixture of chemicals and the detergents that we use at home or at work are mixtures of chemicals. Most chemicals pose no danger if they are used correctly as described in the suppliers' instructions. However, knowing the potential for a chemical to cause harm to people or the environment is essential. Legislation such as the **Biocidal Products Regulation (EU 528/2012)** and **REACH (Regulation (EC) No 1907/2006)** are key to much of the current chemical legislation aimed at reducing risks to People and the Environment. However, for most users of chemicals, it is the Safety Data Sheet that will be the first point of contact with a regulatory document. The information provided on a Safety Data Sheet identifies the way chemicals can cause harm and provides information as to how they should be used safely. The Safety Data Sheet is an important document that forms the basis of risk assessments that must be conducted before using any chemical. A safety data sheet is not a COSHH assessment; it is a source of information that should be used to conduct a COSHH assessment.

Legal Requirement for a Safety Data Sheet

There is a legal requirement to provide Safety Data Sheets when a chemical substance or mixture carries a hazard classification. Many products supplied by Holchem and other Detergent / Disinfectant suppliers will require a Safety Data Sheet. However, some products will be unclassified; although for these there may not be a legal requirement to supply a Safety Data Sheet, Holchem undertakes to supply a document. (For products regulated as Cosmetics such as M7 Hand Soap and M9 Hand Care the document will not be regulated as a safety data sheet). This enables customers to give a proper assessment of risk. Some chemical types that are not used by Holchem have very specific data requirements and do not fall into the scope of Safety Data Sheets, examples are:-

- Radioactive substances and mixtures.
- Substances and mixtures subject to customs supervision.
- Non-isolated intermediaries.
- Substances and mixtures for scientific research and development which are not placed on the market and are only used in controlled conditions.
- Waste.

Current legislation for Safety Data Sheets also does not apply to:-

- Medicines (human and veterinary).
- Medical devices.
- Cosmetics (including hand soaps).
- Food.

- Feeding stuffs (i.e. food additive; food flavouring; feeding stuffs used in animal nutrition).

For many years, Safety Data Sheets within the EU have complied in accordance with either:-

- The European Dangerous Substances Directive (No. 67/548/EEC).
- The Dangerous Preparations Directive (No. 1999/45/EC).

In general, Detergents and Disinfectants are a mixture of substances and so fall under the control of the Dangerous Preparations Directive. These two Directives (DSD and DPD) were implemented in the UK by **The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009** – known as CHIP.

A common European wide regulatory process for Safety Data Sheets allowed the Hazards associated with products produced in one country and sold in another, to be clearly understood and greatly improved chemical safety. Safety Data Sheets allowed a clear distinction between non-classified, irritant, harmful, toxic and corrosive chemicals. Outside the EU, other territories such as the US, most of the Commonwealth, India and China have different systems for classifying the Hazards or Risks associated with chemicals. Each of these systems on their own was generally good, but was different. Some classifications we are familiar with did not exist in other systems; alternatively the means of classification was different, so for example whereas in the US, a chemical may be classified as “Toxic”, the EU classification may be just “Harmful”.

The chemical industry relies on worldwide trade, the variance in classification systems makes assessing the safety of chemicals difficult. The Earth Summit held in Rio de Janeiro in 1992 and a World Summit held in Johannesburg in 2002 recognised this as an important global issue and the United Nations developed a **Globally Harmonised System (GHS)** on classification and labelling. The UN GHS is not a formal treaty, but instead is a non-legally binding international agreement. Individual countries (or trading blocs) must create specific legislation to implement the GHS. Within the EU this is implemented as **Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging – CLP**.

The UN anticipates that once fully implemented, GHS (CLP) will:-

- Enhance the protection of human health and the environment by providing a system for hazard communication that is comprehensible throughout the world.
- Provide a recognised framework for those countries without an existing system.
- Reduce the need for testing and evaluation of chemicals (agreeing / harmonising classification will help to reduce the need for animal testing).
- Facilitate trade in chemicals whose hazards have been properly assessed and identified on an international basis.

What changes will we see with the new CLP System?

The most obvious changes to Labels and Safety Data Sheets will be the disappearance of the well understood:-

- Orange Squares. These are to be replaced with Red Diamonds and Signal Words (such as Danger or Warning).
- Risk Phrases. These are to be replaced with Hazard Statements.
- Safety Phrases. These are to be replaced with Precautionary Statements.

There is no direct correlation between the old DSD / DPD and the new CLP systems. Sometimes products that are currently classified as Irritant  may move to become Corrosive .

Equally some products that are currently not classified will gain a classification. These changes are simply due to the method of classification, they do not mean that a formulation has changed. When assessing the risks associated with a chemical it is essential that users take into consideration both the symbol and the written words in the “P” phrase. The table at the end of this document is not exhaustive but compares some of the more common symbols and phrases that are likely to appear on Holchem Safety Data Sheets and Labels. This table does not imply direct read across of classification.

Timescales

The new regulations applied to substances from 1st December 2010, but for mixtures (most detergents and disinfectants) the change does not need to be made until June 2015. The reason for this delay is that mixtures are combinations of substances or other mixtures; it would therefore have been impossible for all changes to have been made at the same time as the data necessary to produce classifications would simply not have been available.

Holchem is aiming to issue new Safety Data Sheets from April 2015. At this time, labels on chemical containers will also change. Because information takes time to flow through the worldwide supply chain, we expect some Safety Data Sheets will be updated several times during 2015. Non-regulatory information sources such as “Point of Use Signs” will also need to be changed.

End Users Responsibility

If you are an employer you must ensure that when a new Safety Data Sheet is issued, you use it to ensure that the procedures you have in place for safe storage, use and disposal of a chemical are still adequate. You should alert employees who are handling chemicals of the impending changed classifications and make sure that they are aware of the meaning of the new symbols and definitions. If you do not understand the changes, or the reasons for the changes, you should speak to your chemical suppliers. It is also essential to remember that other legislation must be followed when using chemicals at work to ensure the protection of workers.

- Guidance and advice on the Control of Substances Hazardous to Health (COSHH) is available from the HSE <http://www.hse.gov.uk/coshh/index.htm>
- Guidance on REACH is available at <http://www.hse.gov.uk/reach/index.htm>
- Guidance on the Biocidal Products Regulation is available at <http://www.hse.gov.uk/biocides/index.htm>

New Label Elements & Hazard Phrases Table

CHIP	Risk Phrase	Label Element	CLP	Hazard Statement	Signal Word
	R34 Causes Burns	Corrosive		H290 May be Corrosive to Metals	Warning
	R35 Causes Severe Burns	Corrosive		H314 Causes Severe Skin Burns and Eye Damage (Cat. 1A, 1B, 1C)	Danger
				H318 Causes Serious Eye Damage	Danger
	R41 Risk of Serious Damage to Eyes	Irritant		H315 Causes Skin Irritation	Warning
	R36 Irritating to Eyes	Irritant		H319 Causes Serious Eye Irritation	Warning
	R37 Irritating to Respiratory System	Irritant		H335 May Cause Respiratory Irritation	Warning
	R38 Irritating to Skin	Irritant			
	R40 Limited Evidence of a Carcinogenic Effect	Harmful			
				H351 Suspected of Causing Cancer	Warning
	R50 Very Toxic to Aquatic Organisms	Dangerous for the environment		H400 Very Toxic to Aquatic Life	Warning