Classification, Labelling and Packaging [CLP] of Substances & Mixtures – New EU Regulations for a Globally Harmonised System [GHS].

The CLP Regulation entered into legal effect in all EU Member States on 20 January 2009 and following a lengthy transitional period, came fully into force on 1st June 2015. These regulations fully replace Chemical Hazard Information & Packaging Regulations [CHIP 4].

CLP Hazard Pictograms

HEALTH HAZARDS	
	**Acute toxicity**, Very toxic (fatal), Toxic etc.
	**Harmful** skin irritation, serious eye irritation
	Respiratory sensitiser, mutagen, carcinogen, reproductive toxicity, systemic target organ toxicity, aspiration hazard
	**Corrosive** (causes severe skin burns and eye damage), serious eye damage
PHYSICAL HAZARDS	
	**Flammable** gases, liquids, solids, aerosols, organic peroxides, self-reactive, pyrophoric, self-heating, contact with water emits flammable gas
	**Gases under pressure**

	**Oxidising** gases, liquids, solids
	Explosive, self-reactive, organic peroxides
ENVIRONMENTAL HAZARDS	
	Harmful to the environment

CLP Hazard & Precautionary Statements

Hazard statements

A hazard statement is a phrase that describes the nature of the hazard in the substance or mixture. These replace the 'risk or R-phrase' used in CHIP. Examples of hazard statements include.

- **H240** - Heating may cause an explosion
- **H320** - Causes eye irritation
- **H401** - Toxic to aquatic life

Precautionary statements

A precautionary statement is a phrase that describes recommended measure(s) to minimise or prevent adverse effects resulting from exposure to a hazardous substance or mixture due to its use or disposal.

Examples of precautionary statements include:

- **P102** - Keep out of reach of children
- **P271** - Use only outdoors or in well-ventilated area
- **P410** - Protect from sunlight

Suppliers determine the appropriate precautionary statements (usually no more than six) based on the required hazard statements. It replaces the 'safety or S-phrase' used in CHIP 4.

See Appendix I for a full list of Hazard and Precautionary Statements

CLP -Signal words

The CLP Regulation also introduces two new signal words: '**Danger'** and '**Warning'.**

If the chemical has a more severe hazard, the label includes the signal word ‘Danger’; in case of less severe hazards, the signal word is ‘Warning’.

Appendix 2 is a very useful chart produced by Merck showing pictograms, Hazard statements/Risk phrases under both CLP and CHIP4 respectively.

CLP Labelling

The following is an example showing the components of a complaint label

CLP & Safety Data Sheets [SDS]

Safety data sheets (SDS) are key documents in the safe supply, handling and use of chemicals. They should help to ensure that those who use chemicals in the workplace do so safely with risk of harm to users or the environment. The requirement to provide an SDS actually comes from the REACH regulations which lay down the format that suppliers must follow when producing an SDS. The SDS must be dated and contain the information necessary under the following headings, to allow employers to do a risk assessment as required by the Control of Substances Hazardous to Health Regulations (COSHH).

1. Identification of the substance/mixture and of the company/undertaking;
2. Hazards identification;
3. Composition/information on ingredients;
4. First-aid measures;
5. Fire-fighting measures;
6. Accidental release measures;
7. Handling and storage;
8. Exposure controls/personal protection;
9. Physical and chemical properties;
10. Stability and reactivity;
11. Toxicological information;
12. Ecological information;
13. Disposal considerations;
14. Transport information;
15. Regulatory information;
16. Other information.

The SDS itself is not an assessment. However it will describe the hazards helping employers assess the probability of those hazards arising in the workplace.

Guidance on how to interpret information in the SDS and incorporate into a risk assessment is contained within the following guidance document:

Risk Assessment and Management - Processes Using Hazardous Substances