



On June 1st, 2015, after a transitional period, the CE Regulation n. 1272/2008, known as CLP (Classification, Labelling and Packaging) Regulation, came finally into force. This regulation has introduced a new system of classification, labelling and packaging of substances and mixtures and has abrogated the Directives 67/548/CEE (Dangerous substances directive) and 1999/45/CE (Dangerous mixtures directive).

Its main objective is to determine what are the properties that allow the classification of a substance or a mixture as dangerous, in order to clearly identify and make known the related hazards.

These properties include dangers of physical nature, dangers for human health and environment, including those for the ozone layer.











Moreover the CLP regulation aims to assure animals protection, minimizing the experiments on them. Animal testing is allowed only if there are no literature data or alternative tests, that can give results of suitable reliability and quality.










### **The new pictograms**

A hazard pictogram is an image on a label that includes a warning symbol and specific colors intended to provide information about the damage a particular substance or mixture can cause to our health or to the environment. The CLP Regulation has introduced a new classification and labelling system for hazardous chemicals in the European Union. The pictograms have also changed and are in line with the United Nations Globally Harmonized System.

The new pictograms are in the shape of a red diamond with a white background and will replace the old orange square symbols which applied under the previous legislation. From June 1st 2015, all substances and mixtures should be labelled according to the new legislation, but the old pictograms can still be found on the market until June 1st 2017, due to a derogation for the mixtures already on the market before June 1st 2015.

The labels will show hazard warnings (H), caution advices (P) and name of the hazardous substances that classify the mixture as dangerous.

New Hazard pictogram (CE regulation 1272/2008)	Old symbol (Obsolete directive 67/548/CEE)	Meaning (classification and precautions)
 GHS01	<b>E</b>  <b>Explosive</b>	<p><b>Classification:</b> substances or mixtures that can explode due to a spark or that are very sensitive to shocks or frictions.</p> <p><b>Precautions:</b> avoid bumps, waggles, frictions, flames or heat sources.</p>
 GHS02	<b>F</b>  <b>Flammable</b>	<p><b>Classification:</b> Substances or mixtures that can overheat and burn in contact with air at a temperature between 21 and 55 °C, water or ignition sources (sparks, flames, heat...);</p> <p><b>Precautions:</b> avoid contact with materials (like air and water).</p>
	<b>F+</b>  <b>Extremely Flammable</b>	<p><b>Classification:</b> liquid substances or mixtures with a combustion point lower than 21 °C.</p> <p><b>Precautions:</b> avoid contact with materials (like air and water).</p>
 GHS03	<b>O</b>  <b>Oxidising</b>	<p><b>Classifications:</b> Reacting with other substances, these products can easily oxidise or release oxygen. For these reasons they can cause or worsen fires of flammable substances.</p> <p><b>Precautions:</b> avoid contact with flammable materials.</p>
 GHS04	<i>(no current symbol)</i>	<p><b>Classification:</b> tanks or other gas containers that are under pressure, compressed, liquefied, refrigerated or dissolved.</p> <p><b>Precautions:</b> carry, handle and use with the necessary care.</p>
 GHS05	<b>C</b>  <b>Corrosive</b>	<p><b>Classification:</b> these chemical products cause destruction of living organisms tissues and/or materials.</p> <p><b>Precautions:</b> don't inhale and avoid contact with skin, eyes and clothing.</p>

 GHS06 for acute toxic products	 <b>T</b> Toxic	<b>Classification:</b> substances or mixtures that can cause serious acute or chronic hazards, even death, in case of their inhalation, ingestion or skin penetration.  <b>Precautions:</b> avoid any contact with the body.
 GHS08 for toxic products in the long term	 <b>T+</b> Extremely Toxic	<b>Classification:</b> substances or mixtures that can cause serious acute or chronic hazards, high risk of death, in case of their inhalation, ingestion or skin penetration.  <b>Precautions:</b> avoid any contact with the body, inhalation, ingestion and a continuous or repetitive exposure, even with low concentrations of the substance or mixture.
 GHS07	 <b>Xi</b> Irritant	<b>Classification:</b> non corrosive substances or mixtures that can cause an irritating effect further to the immediate, prolonged or repetitive contact with skin or mucous membranes.  <b>Precautions:</b> Don't inhale vapors and avoid contact with skin.
	 <b>Xn</b> Harmful	<b>Classification:</b> substances or mixtures that, in case of inhalation, ingestion or skin penetration, can cause health hazards, not lethal; substances that, in case of inhalation or contact, can cause allergic or asthmatic reactions.  <b>Precautions:</b> Don't inhale vapors and avoid contact with skin.
 GHS09	 <b>N</b> Dangerous for the environment	<b>Classification:</b> the contact of these substances or mixtures with the environment can cause damages to the ecosystem (flora, fauna, water, etc.) in the short or long term.  <b>Precautions:</b> these substances should not be released in the environment.

On the other hand, these are some features of the Safety Data Sheet (SDS):

- the SDS must be supplied only if specific dangerous properties are applied;
- the SDS disregards production/import quantity limits;
- the SDS is addressed to the professional user;
- none of the information contained in the SDS can be considered as confidential (with the exception of the chemical name for some categories of danger, but with permission);
- there is no formal obligation of a ready SDS for all the products with no legal obligation of SDS.