

## Phenolphthalein

As the CLP/GHS system takes hold, a few changes in classification are coming to light. Most of these are minor alterations, usually due to shifting boundaries between, say, irritant and corrosive. A few, however, are more radical. Phenolphthalein is one such case.

The process of classification by The European Chemical Hazards Association (ECHA) proceeds as follows:

- All the companies who are manufacturing or importing the chemical into the EU must assess its hazards and pass on that information to ECHA.
- ECHA then assesses these submissions, looks at the evidence and then comes to an agreed, 'Harmonised' classification which is the one to be used in future across the EU.

Over recent years, concern has been growing about the long term health effects of phenolphthalein. Last year, ECHA produced a new classification and as a result a substance which had previously been classed as being of little hazard is now a carcinogen (category 1B), a mutagen (category 2) and a reproductive toxin (category 2). This seems a little alarming but there is no need to jettison all your phenolphthalein.

The classification applies to the solid and to solutions of 1% and more. As the prime use of phenolphthalein is as an indicator, it is already used in low concentrations and in small amounts. We would recommend that phenolphthalein solutions be made up to concentrations of less than 1%; 0.5% is a good working strength for most purposes. At this concentration no hazard labels are required. That is not to say that there is no hazard, but it does mean that the dangers are slight enough to be deemed not significant.



Technicians who prepare the solutions should take precautions to avoid contact with the solid: wear gloves and goggles (BS EN 166 3) and avoid raising dust. Fortunately, phenolphthalein is not volatile so unless it is handled carelessly there is little chance of any exposure.

If you buy in solutions from a chemical supplier, try to order 1% or below. If they supply a more concentrated product then dilute it with the solvent in which their product is supplied.

And finally... remember that just because the 0.5% phenolphthalein is not considered a hazard in your indicator, don't forget the hazards due to 99.5% of methanol, propan-1-ol or whichever other solvent you are using.

