
Technical Information

EVXT TI- 11 / 2011

Page 1 of 4

First Edition June 2011



® = Registered trademark of
BASF SE

Uniperol[®] Buffer PC

Mixture of nonvolatile organic acids for use in dyeing and printing

Nature	Mixture of aliphatic carboxylic acids
Physical form	Clear, colourless to yellowish liquid
Shelf life	Uniperol® Buffer PC can be kept in the original sealed containers at temperatures between 0 and 40 °C for at least 2 years. Once containers have been opened, the contents should be used up quickly. Containers should be closed tightly after use.

Properties

pH	1.5 – 2.5 (10 g Uniperol® Buffer PC to 90 g water)
Density	1.1–1.2 kg/l
Viscosity	25 – 35 mPa·s
Solubility	The product is miscible with water in all proportions. The above data are approximate. Tolerances are given in the product specification.

Application

Uniperol® Buffer PC can often be used to advantage to replace acetic acid in dyeing and printing processes. Its low volatility ensures that the pH remains constant throughout the process. The product is best first diluted with water but can also be added directly to the dyebath, print paste or pad liquor.

Preparations of buffer solutions

Uniperol® Buffer PC is also ideal for preparing buffer solutions. The following mixture has a particularly good buffering effect in the pH range 4.8 – 5.5:

Uniperol® BUFFER PC	700 g
NaOH 38 °BE	300 g

Owing to its low volatility, Uniperol® Buffer PC offers advantages over acetic acid in processes where the pH in open equipment must be kept constant in the acid range over an extended period, for example in the continuous dyeing of wool, polyamide or polyacrylonitrile fibres by the pad-steam process.

Uniperol® Buffer PC is well suited in Neutralizing step of Mercerizing process.

Uniperol® Buffer PC can also be used for pasting and dissolving basic dyes. The dye is first pasted with the same amount by weight of a 50 % Uniperol® Buffer PC solution at 50 – 60 °C, and then diluted further by adding boiling water.

When Uniperol® Buffer PC is used to neutralize cotton or blends containing cellulosic fibres following alkaline treatment, traces of Uniperol® Buffer PC left in the material are not likely to cause problems. However, residual concentrations above 2 g/kg material can reduce the DP value if the goods are subjected to temperatures higher than 190 °C. Experience has shown that keeping to the optimum application rate (check the fabric pH if necessary) results in a much lower residual acid content.

When reactive dyeings are neutralized with Uniperol® Buffer PC after soaping and rinsing, the pH of the material must be checked, because excess acid can cause hydrolysis of the dye-fibre bonds during storage (as is the case when neutralization is carried out with other acids). In textile printing with disperse dyes, it is essential to adjust the pH of the print paste to between 5 and 6. Uniperol® Buffer PC, as a nonvolatile acid with a particularly good buffering effect, is ideal for the purpose.

In contrast to volatile acids, the advantage of Uniperol® Buffer PC is that the pH remains constant throughout the entire printing process. This is especially important for the optimum fixation of disperse dyes in the pH range 5 – 6. The amount of Uniperol® Buffer PC added must be adjusted according to the printing recipe used, since the pH of the print paste is influenced by the thickening agents, auxiliaries, dyes and process water. It is therefore necessary to readjust the amount when any changes are made to the recipe.

Handling

Avoid inhaling the vapour given off by the product above 60 °C. The eyes should be protected from the vapour and from liquid Uniperol® Buffer PC. Wear goggles when working with the product. Ensure that the place of work is well ventilated (if necessary, use an air-extraction system).

Safety

When using this product, the information and advice given in our **Safety Data Sheet** should be observed. Due attention should also be given to the **precautions** necessary for handling chemicals.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. Responsibility for compliance with the requirements of the downstream textile market rests with the textile processor.

