Dye-affinitive stripping and levelling agent

Albigen A New is used

- as a stripping agent for dyeings obtained with vat, sulfur, reactive and direct dyes

- for lightening the shade of dyeings and prints produced with direct dyes

- to prevent the ground from being stained when prints produced with direct and reactive dyes are washed off

- as a levelling agent in dyeing with vat and direct dyes.
Albigen® A New

Nature Polyvinylpyrrolidone solution

Physical Form Almost colorless liquid

Storage Albigen A New has a shelf life of at least 24 months if it is kept in the original sealed containers at temperatures between 5ºC and 25ºC. Once the containers have been opened, their contents should be used up as soon as possible, and they should be tightly reclosed after each withdrawal.

Properties

Solubility The solutions are resistant to acids, alkalis, electrolytes, and the salts causing hardness in water.

The product solidifies on exposure to severe frost, but re-liquefies on heating without detriment to its properties. Albigen A New is nonionic and non-surfactant, and it is compatible with the auxiliaries normally encountered in the textile industry.

pH The aqueous solutions react almost neutral.

Mode of Action Albigen A New owes its effects to its affinity for anionic dyes. It thus greatly increases the dye concentration in the liquor. In the one case, this entails that the uptake of dye onto the textile is suppressed or even entirely prevented; and in the other case, that dye is stripped from a colored textile. This effect differs from one class of dyes to another and also between individual dyes within the one class.

Conventional wetting agents, detergents and clearing agents do not affect Albigen A New.
**Albigen® A New**

**Application**

**Dyeings and prints**

**Vat dyes**

Stripping can be substantially improved by adding Albigen A New to the blank vat and can be the Albigen A New concentration. Thus the deeper the shade, the more Albigen A New that has to be added. Nevertheless, the concentration should not overstep the recommended value, as otherwise the solubility limit for the dye-Albigen A New addition compound may be exceeded and precipitation may thus occur. It is precisely this risk that exists with dark shades. The concentration recommended for stripping shades that have been dyed or printed with vat dyes in long liquors is

4.5-7.5 g/l Albigen® A New

In order to avoid the precipitation that may arise in dyeing to dark shades, auxiliaries with a dispersing effect, e.g. Basol® WS or Uniperol® AC (2 g/l) should be added to the stripping bath. If the process water is hard, it would be advisable to add Basokol® NB-SN or Trilon® TA.

The stripping bath for wound packages should Basol® WS or Uniperol® AC in order to eliminate any risk that the dye will filter out in the package. This applies to medium as well as to dark shades.

The temperature of the stripping bath should be as high as possible, but should not exceed 85°C, as otherwise the bath stability could be impaired.

The following recipe is recommended:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dekol® N-SN</td>
<td>1-2 g/l</td>
</tr>
<tr>
<td>Basol® WS and/or</td>
<td>1-2 g/l</td>
</tr>
<tr>
<td>Uniperol AC</td>
<td>1-2 g/l</td>
</tr>
<tr>
<td>Caustic soda 38º Bé</td>
<td>10-15 ml/l</td>
</tr>
<tr>
<td>Hydrosulfite</td>
<td>5-6 g/l</td>
</tr>
<tr>
<td>Albigen® A New</td>
<td>4.5-7.5 g/l</td>
</tr>
</tbody>
</table>

45-60 minutes at 60-85°C (check the state of the vat), followed by rinsing warm and then cold.
Albigen® A New

The risk of exceeding the solubility limit for the dye/Albigen A New addition compound is less in long liquors than in short. For this reason, the following liquor rations should be adhered to in stripping piecegoods on the jig:

<table>
<thead>
<tr>
<th>Shade</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pale shades</td>
<td>5:1</td>
</tr>
<tr>
<td>Medium shades</td>
<td>8:1 to 10:1</td>
</tr>
<tr>
<td>Dark shades</td>
<td>10:1 and higher</td>
</tr>
</tbody>
</table>

The strongest stripping effect on piecegoods is obtained in winch becks and jet-dyeing machines, because they allow long liquor ratios and intense movement in the liquor.

**Sulfur dyes**

Albigen A New also promotes the stripping of sulfur dyes. In this case, the dyeings are stripped in a blank vat with caustic soda and hydrosulfite and not with a boiling sodium sulfide solution.

The rules for stripping sulfur dyes are the same as those for vat dyes.

**Direct dyes**

The material from which direct dyes have to be stripped is treated with the following recipe:

- 1.0 g/l soda ash
- 2.0 g/l Hydrosulfite Conc. BASF
- 3.0 g/l Albigen® A New

30-60 minutes at 50ºC, followed by thorough rinsing

**Reactive dyes**

The material from which reactive dyes have to be stripped is treated with

- 15 g/l caustic soda 38º Bé
- 5 g/l Hydrosulfite Conc. BASF
- 3 g/l Albigen® A New

30-60 minutes at 60-80ºC, followed by thorough rinsing
Albigen® A New

Lightening the shade of dyeings and prints produced with direct dyes

Dyeings and prints produced with direct dyes are lightened by treating them near to the boil in a very long liquor containing

\[
\begin{align*}
0.5-2 \text{ g/l} & \quad \text{soda ash} \\
1.5-4.5 \text{ g/l} & \quad \text{Albigen® A New}
\end{align*}
\]

If the dyeings have been treated with copper salts in order to improve their fastness properties, an even greater lightening effect can be achieved by adding 0.5-1 g/l of Trilon TA powder.

Washing off prints produced with direct and reactive dyes

The presence of Albigen A New in wash baths prevents the white grounds from being stained when prints produced with direct and reactive dyes are washed off. It also prevents staining of the white effects when discharge prints are washed on direct-dyed grounds. Albigen A New is particularly recommended if the reactive dyes have high substantivity and are thus difficult to wash out. In this application, it is added in proportions of 0.5-1.5 g/l to the wash bath, which contains the usual detergents, e.g. Kieralon®.

Levelling

Vat dyes

Owing to its strong retarding effect on vat dyes, Albigen® A New can contribute towards the achievement of level dyeings in difficult cases, particularly in dyeing wound packages in very pale shades.

In order to avoid unnecessary wastage of dye in cases of this nature, the proportion of Albigen A New should be kept very low. Good results are obtained with the following combination of auxiliaries:

\[
\begin{align*}
1-2 \text{ g/l} & \quad \text{Dekol® N-SN} \\
0.5-2 \text{ g/l} & \quad \text{Peregal® P} \\
0.075-0.45 \text{ g/l} & \quad \text{Albigen® A New}
\end{align*}
\]

Albigen A New should be added only in the diluted form (1:10) to the dyebath.
Albigen® A New

Direct dyes

Owing to their high affinity, direct dyes may give rise to unlevel pale shades on viscose rayon. Since Albigen A New has a strong retarding effect on them, it reduces the rate at which they exhaust and thus improves the levelness.

In order to avoid excessive retardation, i.e. wastage of dye, the concentration of Albigen A New should be no higher than necessary. It depends on the dye concentration. Thus

1.5-2.25% of Albigen A New for pale shades (up to 1% dye).
.75-1.5% of Albigen A New for medium shades (1-3% dye).
Albigen® A New

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.

We know of no ill effects that could have resulted from using Albigen® A New for the purpose for which it is intended and from processing it in accordance with current practice.

According to the experience that we have gained over many years and other information at our disposal, Albigen® A New does not exert any harmful effects on health, provided that it is used properly, due attention is given to the precautions necessary for handling chemicals, and the information and advice given in our Material Safety Data Sheet are observed.

Important: While the information and data contained in this bulletin are presented in good faith and believed to be reliable, they do not constitute a part of our terms and conditions of sales unless specifically incorporated in our Order Acknowledgment. NOTHING HEREBIN SHALL BE DEEMED TO CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, THAT SAID INFORMATION OR DATA ARE CORRECT OR THAT THE PRODUCTS DESCRIBED ARE MERCHANTABLE OR FIT FOR A PARTICULAR PURPOSE, OR THAT SAID INFORMATION, DATA OR PRODUCTS CAN BE USED WITHOUT INFRINGING PATENTS OF THIRD PARTIES. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.

Note: Material Safety Data Sheet is available upon request.

BASF Corporation, 2000
Colorants and Textile / Leather Chemicals

BASF Canada Inc.
345 Carlingview Drive.
Toronto ON
M9W 6N9
Canada
(416) 675-3611

BASF Corporation
4330 Chesapeake Drive
Charlotte, NC 28266
USA
(704) 392-4313
800-545-4931

BASF Mexicana, S.A de C.V.
Insurgentes Sur 975
Col. Cd. de los Deportes
03710 México, D. F.
México
(5) 325 2709