



## Taicell PCG-1500

Chelating is the great importance in the textile processing such as scouring 、 bleaching 、 dyeing and aftertreatment 。

Unchelated metal ion such as Calcium 、 Magnesium and Iron will cause bad influence in wet process 。

Although hard water is the main source of the metal ion ， but not only one 。

As we know Calcium and Magnesium are found in the natural fibers ， Iron frequently enter the bath through pipes 、 tanks and other equipment made by Iron 。

### I 、 Properties ：

- 1.Appearance                           : light yellow liquid 。
- 2.Ionic activity                        : anionic/nonionic 。
- 3.pH值( 1% sol. )                   :  $10 \pm 1$  。
- 4.Main component                   : compound of phosphonate and polycarboxylate 。
- 5.solubility                           : easily dilutable with water 。
- 6.Storage                              : good storability 。

### II 、 Features ：

- 1.Taicell PCG-1500 shows high chelating power on  $\text{Ca}^{++}$  、  $\text{Mg}^{++}$  、  $\text{Fe}^{++}$  。
  - 2.Excellent dispersing properties 。
  - 3.To be stable at high temperature and pressure ， and never decrease the chelating power in strong alkaline liquid 。
  - 4.Taicell PCG-1500 is suitable for all wet process 。
  - 5.Taicell PCG-1500 can prolong the life of  $\text{H}_2\text{O}_2$  in the peroxide bleaching bath 。
- (If Taicell PCG-1500 is not efficient at  $100^\circ\text{C}$  for stabilizing peroxide during the bleach ， the Taicell HS-3000 is recommended to use)

### III 、 Application ：

#### 1.Scouring and soaping

Taicell PCG-1500 0.5~1.0 g/l is recommended ， the quantity depending on hard water condition 。

## 2. Bleaching and dyeing

Taicell PCG-1500 1.0~2.0g/l o.w.f. is recommended

3. When the Iron is present, Taicell PCG-1500 2.0~3.0 g/l is recommended.

\* To estimate the chelating-value by following method:

1. 2g Chelating agent are added to 85 ml distilled water and stirring well.

2. Buffer and pH: 10ml  $\text{Na}_2\text{CO}_3$  solution(2%) and 2~5ml NaOH solution (pH=11).

3. Titration: Use M/4  $\text{Ca}(\text{CH}_2\text{COO})_2 \cdot \text{H}_2\text{O}$  to titrate the No.2 solution till the white sediment is appear.

Chelating-value (mg/g) =  $\frac{\text{Titration ml} \times 25}{2\text{g (chelating agent)}}$

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