

Technical - Information

AVCO-NTROLS

ALKALI BUFFER FOR DYEING REACTIVE DYESTUFF

AVCO-NTROLS is an alkali donor and buffer preparation used for dyeing cellulosic fibres with reactive dyestuff in jets, winches and jiggers.

SPECIFICATION:

| | |
|------------------------|--|
| Appearance | White granular. |
| Chemical nature | Inorganic alkaline buffer. |
| Solubility | Soluble in water at any proportion. |
| pH (10% sol.) | 12 - 14 |
| Foaming | Solution of AVCO-NTROLS is non-foaming. |
| Compatibility | When using slightly hard water, it is recommended to add a sequestering agent such as AVCO-POLYQUEST 1096. In general, it is recommended to use soft water while dyeing. AVCO-NTROLS is not compatible with products sensitive to high alkalinity. |
| Storage | When properly stored in closed container, shelf life is at least 12 months. |

PROPERTIES & USES:

1. AVCO-NTROLS is a buffer preparation which controls the pH in the dyeing liquor through the whole dyeing process.
2. AVCO-NTROLS is replacing usage of sodium carbonate (Soda ash) and sodium hydroxide (caustic soda). Being an alkali buffer, it ensures a stable pH level, and consequently produces a very uniform fixation of the reactive dyestuffs onto cellulosic fibres.
3. Improvement of dyeing reproducibility.
4. More level dyeing.
5. Shortening of dyeing process.
6. Used of AVCO-NTROLS eliminates handling of big amount of powdery soda ash Na_2CO_3 (usage of AVCO-NTROLS is about one quarter of the amount of soda ash).

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APPLICATION:

When replacing soda ash by AVCO-NTROLS the amount of Sodium ions in the dye-bath will be reduced, so to compensate for the loss of sodium ions, then increase the concentration of Na_2SO_4 to 18%.

Following are dosing recommendation of AVCO-NTROLS depending on concentration of dyestuff:

| DYESTUFF (%) | AVCO-NTROLS (in LAB) gr/l | of AVCO-NTROLS (in PRODUCTION) gr/l | SODA (in PRODUCTION) gr/l |
|-------------------------|--|--|--|
| 0.0 - 0.5 | 1.8 | 2.6 | 12 |
| 0.5 - 1.0 | 2.2 | 2.9 | 16 |
| 1.0 - 1.5 | 2.5 | 3.3 | 18 |
| 1.5 - 2.0 | 2.7 | 3.6 | 22 |
| 2.0 - 2.5 | 2.9 | 3.9 | 22 |
| 2.5 - 3.0 | 3.1 | 4.3 | 22 |
| 3.0 - 3.5 | 3.3 | 4.6 | 25 |
| 3.5 - 4.0 | 3.7 | 4.8 | 25 |
| 4.0 - 5.0 | 4 | 5 | 25 |
| > 5.0 | 4.5 | 5.8 | 25 |

SAFETY:

AVCO-NTROLS is a corrosive alkaline material, and should be handled with care.

Goggles and gloves should be worn during handling. When handling large quantities or cleaning spills, use also apron and rubber boots.