

## AVCO-CID LPH CONC

*ACID DONOR AND pH REGULATOR FOR DYEING POLYAMIDE AND WOOL*

AVCO-CID LPH CONC is an acid donor that creates acidity when solutions of the product are heated up. The rate of dissociation is slow in cold solutions, and increases while heating up. This slow dissociation process is useful for dyeing wool and polyamide fibers, as the dyes are exhausted very evenly and produce level dyed yarns and fabrics.

### *SPECIFICATIONS:*

<b>Appearance</b>	Yellowish clear liquid
<b>Chemical nature</b>	Blend of organic esters.
<b>Solubility</b>	Miscible with cold water.
<b>Density (gr/cc)</b>	1.25-1.27
<b>pH (1 g/l)</b>	6.0-7.0
<b>Ionicity</b>	Nonionic
<b>Compatibility</b>	Is not compatible with strong alkalis. Hydrolyzes in water solutions.
<b>Storage</b>	Stored in a closed container in a cool place. Do not store in direct sun.

### *PROPERTIES & USES:*

1. AVCO-CID LPH CONC is an acid donor which evenly and slowly hydrolyzes in hot aqueous solution to produce an organic acid.
2. During the hydrolyzing process the organic acid produced is lowering the pH of the solution down to 4.0-5.5 according to the concentration in the liquor.
3. The rate of the dissociation is slow in cold solutions and increases when the temperature is raised.
4. This manner of pH control makes it useful for dyeing wool and polyamide with acid and metal complex dyes. As the exhaustion rate of acid dyes is pH dependent, the slow lowering of the pH in a dyeing solution containing AVCO-CID LPH CONC, ensures more level dyeing, due to slower exhaustion rate of the dyestuffs onto the fibres.
5. AVCO-CID LPH CONC is recommended for even dyeing of polyamide, wool and blends of these fibres.

## Technical - Information

6. AVCO-CID LPH CONC does not influence any of the fastness properties of the dyed fibres.

### APPLICATION:

It is recommended to adjust the initial pH of the dyeing solution slightly to the alkaline side with ammonia. Adjust pH of 7.0-8.0 for wool and pH of 8.0-9.0 for polyamide. This will provide a low substantivity of the dyestuffs to the substrate, the substantivity will grow evenly and steadily with increasing dyeing temperature and time.

Following are some recommended dyeing procedures. The dosages, temperatures and procedures are suggestions which may be varied according to the type of dyestuffs used, properties of fibres to be dyed, liquor ratio and nature of industrial water used.

### Dosage of AVCO-CID – LPH CONC

LIGHT SHADES	0.3-0.75	cc/l
MEDIUM SHADES	0.75-1.5	cc/l
DARK SHADES	1.5-2.0	cc/l

### 1. Dyeing wool

For anionic and 1:2 metal complex dyes Use the following recipe:

AVCO- LON NAL 03	0.5 - 2.0	%
Sodium sulfate	1-2 g/l	
AVCO-CID LPH CONC	0.5 - 2.0	cc/l
DYESTUFFS	X	%

Start dyeing at 30°C, raise temperature to the boil at app. 45 min.

Dye at the boil for 60 - 90 min. depending on the depth of the shade.

### 2. Dyeing polyamide/wool blends :

Use the following recipe:

AVCO-LON NAL 03	0.5 – 2.0	%
AVCO-FIX PA	1-2	%
AVCO-CID LPH CONC	0.5 – 2.0	g/l final pH : 4.5-5.5
DYESTUFFS	X	%

Start dyeing at 30°C, raise temperature to 60°C at 1.5°C/min. Hold for 15 min.

Continue heating at 1°C/min. to the boil. Dye at the boil for 60 min.

### 3. Dyeing polyamide

Use the following recipe:

AVCO-LON NAL 03 (or AVCO-LON REK)	0.5 - 2.0	%
AVCO-CID LPH CONC	0.5 – 2.0	g/l final pH: 4.5-5.5
DYSTUFFS	X	%

Start dyeing at 40-50°C, raise temperature to the boil at 0.5-1.5°C/min. Dye at the boil for 60 min. Cool down to 70°C and drop bath. Rinse with cold water.