

## SHEPHA DD-40 (AL)-TECHNICAL DATA SHEET

### DEFOAMING SOLUTION FOR DISTILLERIES WITH ALFA LAVAL PROCESS

Foam can be a disaster in fermenters because it frequently results in loss of production. In a biotechnology system the conditions for foam production are always potentially present. Many organisms generate proteins, which are released into the surrounding medium. The proteins and the CO<sub>2</sub> liberated generate foam in the fermentation system. SHEPHA offers a specially developed product **SHEPHA DD-40 (AL)**, which has the performance of an antifoam and defoamer to suppress this foam.

**SHEPHA DD-40 (AL)** is a Polyol fatty acid ester. The product acts as a defoamer and antifoamer—i.e., it kills the foam formed and also reduces foam formation tendency in the system.

The product very well suits the fermentation system and has no adverse effect on yeast vitality and cell count (even at 1000 ppm in the fermentation system). This plays an important role in the Alfa Laval process since the yeast is re-cycled in the process.

The Polyol fatty acid ester has a high molecular weight and will not distil off and contaminate the end product.

#### Application:

A 4–6% emulsion of **SHEPHA DD-40 (AL)** is very effective. **SHEPHA DD-40 (AL)** forms a stable emulsion up to 10%. **SHEPHA DD-40 (AL)** being very effective works at a very low dosage as compared to currently used soap sulfonates (TRO etc). This also gives an indirect saving due to less handling, less man-hours, and less skill monitoring.

#### Properties:

Parameter	Specification
Appearance	Amber to brown liquid
Chemical Nature	Polyol Fatty Acid Ester
Acid Value	10 Max.
Dispersibility in Water (10%)	Milky white emulsion
pH (5% Emulsion)	5–8
Solid Content by LOD for 1.5 h @105°C	95% Min.

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