



Technical Data Sheet

DEUTERON VT 819

Thickener based on Xanthan gum / Glyoxal modified

Deuteron[®]
ADDITIVES TO YOUR SUCCESS

■ Product Characteristic

Appearance	yellowish powder
Bulk density	approx. 800 g/l
Viscosity (1 % in Water)	approx. 2700 mPa*s



■ Product Description

Deuteron VT 819 is a natural biopolymer based on polysaccharides. Due to the glyoxal surface treatment the hydration properties of Deuteron VT 819 are delayed. This leads to an easy to use and easy to disperse product.

Solutions based on Deuteron VT 819 tolerate a wide temperature and pH range. At pH levels <2 and >12 depolymerisation and thus a decrease in viscosity can occur. Deuteron VT 819 is stable in anionic and non-ionic systems. In cationic systems it may come to incompatibilities.

Deuteron VT 819 creates a strong structure viscosity. The viscosity decreases when the shear force is increased. It quickly returns to the base viscosity when the shear force is removed. This prevents settling of pigments and fillers and separation of the liquid phase during storage. It also makes application easier by stabilising the sagging behavior.

The product is compatible with most commonly-used binders and thickeners used in the coating industry.

■ Applications

Deuteron VT 819 is suitable for the following applications:

- › General viscosity adjustment
- › Reduction of floating / settling of waxes and pigments
- › Improved stability / anti-sagging
- › Preparation of stable gels

Deuteron VT 819 especially improves performance in:

- › Water-based coatings and printing inks
- › Pigment concentrates
- › Emulsion paints and plasters
- › Water based adhesives
- › Cleaning products

■ Dosage

The required addition level depends on the requirement / target properties:

- | | |
|---|-------------|
| a) Thickening / Gel formation: | 0.1 - 1.0 % |
| b) Stabilisation of solids against sedimentation: | 0.1 - 0.3 % |
| c) Anti-sagging: | 0.1 - 0.5 % |



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■ Processing

The glyoxal layer applied to Deuteron VT 819 starts to dissolve rapidly at basic pH and releases the xanthan for hydration. To ensure a lump free dispersing process it is recommended to add Deuteron VT 819 to systems with a pH value between 5 and 7. After addition and dispersion of Deuteron VT 819 the pH value can be adjusted to >7 without any problems.

Due to the surface treatment, Deuteron VT 819 can be dosed under gentle stirring - high shear forces are not necessary. Usually the material is fully dispersed within 5 minutes after pH adjustment.

It is important to mention that the pH value must be above 7 to activate the material, otherwise the thickening occurs with a considerable delay.

For use in acidic solutions we therefore recommend our Deuteron VT 920 and Deuteron VT 930.

Thickener solutions based on polysaccharides should be stabilized against fungal and bacterial growth with a suitable biocide. All broad range biocides used in the paint industry are suitable.

■ Storage Conditions

24 months at room temperature and dry conditions. Storage temperature should not exceed 35 °C. The relative humidity should not exceed 70 %.

■ Deuteron: First class products for the coating industry

Deuteron GmbH successfully develops and sells innovative additives since 1977. Our product range consists of matting agents, anti-static additives, texturing additives, thickeners and UV initiators. In the course of our company history we have become an important partner of the national and international paint, lacquer and coating industry with sales partners around the globe.

This leaflet intends to give technical advice without warranty and does not claim to be complete.

■ Package Sizes

Paper bags (25 kg net)

■ Safety

According to Regulation (EC) No. 1272/2008 Deuteron VT 819 is not classified as a dangerous product and therefore does not need to be labelled.

For detailed information please refer to the Safety Data Sheet and Regulatory Information Sheet. The documents are also available on our website:

<https://www.deuteron.com/en/download-center/>



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