



## KETTTLITZ-Silanogran VES

- Preliminary technical leaflet -

Kettlitz-Silanogran VES is a 50 % dry liquid in granular form of a triethoxyvinylsilane containing oligomeric alkyl groups. It is used in peroxide cured rubber compounds which are filled by silica, silica earth (Sillitin), clay, other fillers containing SiO<sub>2</sub>-groups or aluminium hydroxide. Besides the function as coupling agent between the filler and the polymer Kettlitz-Silanogran VES will have an excellent influence on the electrical properties especially after the water aging of the compound. During the reaction between the silane and the filler, ethanol will be formed. In comparison to methoxy-ethoxy vinyl silanes there won't be any harmful or cancerogenic decomposition products like methoxy alcohol.

Kettlitz-Silanogran VES is excellently suitable for the application in rubber compounds for the cable industry (high voltage cables). It is recommended as alternative product to replace toxic products or products containing halogens.

### Properties

Chemical Characteristics	oligomeric alkyl groups containing triethoxyvinylsilane (50 %)
Appearance	light granules (6–8 mm diameter), free-flowing
Density at 20 °C (g/cm <sup>3</sup> )	approx. 1.36 (mathematically)
Physiol. Behavior	see safety data sheet
Storage Stability	1 year under suitable storage conditions
Packing	hermetically sealed PE bags of low melting foil (60–85 °C) of 1 kg each in cartons of 15 kg each

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Please visit our website, [www.kettlitz.com](http://www.kettlitz.com), for full product list catalogue, or contact our exclusive agency in Iran:  
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