

63450 Xanthan – thickening agent for sodium silicate

A high-molecular-mass polysaccharide gum produced by a pure-culture fermentation with *Xanthomonas campestris*, purified by recovery with ethanol or isopropanol alcohol, dried and milled; it is prepared as the sodium, potassium or calcium salt.

CAS No.: 11138-66-2
EINECS: 234-394-2

Parameter	Specification
Appearance:	cream-colored powder
Solubility:	readily soluble in hot or cold water
Particle size (through 200 mesh):	min 92.0 %
Viscosity (1% solution in KCl 1%):	1200 – 1600 mPas
Viscosity ratio V1 : V2:	1.02 – 1.45
Loss on drying:	max. 15.0 %
Ash on DM:	max. 16.0 %
Lead:	max. 2 mg/kg
Ethanol and propan-2-ol singly or in combination:	max. 500 mg/kg singly or in combination
Nitrogen:	max. 1.5 %
Pyruvic acid:	min. 1.5 %
Assay on DM (CO ₂) :	4.2 – 5.0 CO ₂ (corresponding to between 91 % and 108 % of xanthan gum)
Total plate count:	max. 2000 cfu/g
Yeast and moulds:	max. 200 cfu/g
E. coli:	negative in 25 g
Salmonella spp.:	negative in 25 g
<i>Xanthomonas campestris</i> :	no viable cells in 1 g
Storage and shelf-life:	2 years under dry conditions at ambient temperature
Uses and application:	stabilizer, thickener, emulsifier, suspending agent, body agent, foam enhancer



„Day two covered gel delivery systems for aqueous solutions and solvents, with the focus on xanthan gum, agarose, Pemulen TR2 , and Velvesil Plus. A water solution of xanthan gum (2% w/v) and triethanolamine (TEA) (5% v/v) forms a viscous, pH 8.5% gel that is stable over a wide pH and temperature range. Additional materials can be added to make custom cleaning poultices. Oxidizing agents, such as bleach, and most cationic materials, such as ammonia, cannot be used as they cause the gel to collapse. Xanthan gum gels can also hold non-polar solvents in intermolecular pockets (oil in water emulsion), a property which has the potential to greatly reduce the conservator’s exposure to solvent. These gels rinse well making them suitable for use on paper and textiles.”

Quoted by Rebecca Pavitt:

Cleaning of Painted Surfaces - Wolbers Strikes Again! - A Workshop Review by Rebecca Pavitt, IIC, London