



PURE INGREDIENTS – CLEAN LABEL – CLEAN CHOICE

DISCOVER THE NEW GENERATION OF BINDERS –
YOUR SOLUTION WITHOUT METHYLCELLULOSE:

WHAT IS METHYLCELLULOSE AND WHY DO WE NEED A REPLACEMENT?

Cellulose is a polysaccharide, which occurs naturally in cell walls of plants. When cellulose is treated with methyl chloride under alkaline conditions, it results in methylcellulose. Due to this chemical reaction in its production process, it needs to be labelled as “gelling agent: methylcellulose (E461)” or just “methyl-cellulose” when used in food. The usage of chemical agents or E-numbers in food is negatively perceived by consumers, who increasingly prefer “clean label” products. There is no legal definition for these kinds of ingredients, but the idea is to use ingredients which are free from artificial additives and that are commonly used in the household as well as in the food industry.



PRODUCT CHARACTERISTICS

- Cold water swelling
- Thermically processed, native corn starch
- Organic & conventional
- Pure odor and taste
- Allergen free

FOCUS ON METHYLCELLULOSE ALTERNATIVE – NATURAL & EFFECTIVE

We can provide two clean label alternatives for methylcellulose within the AGRANA Starch portfolio. The first alternative is the conventional QUEMINA® 21.200, a thermically processed, pregelatinized corn starch. The second alternative is QUEMINA® 21.204, which can be used in organic products. The substitution of methylcellulose by QUEMINA® achieved a good comparability in different food systems.

THE DEMAND FOR CLEAN LABEL PRODUCTS HAS INCREASED OVER THE LAST FEW YEARS AND EXTENDS ACROSS ALL DIETARY HABITS

The versatile raw material methylcellulose is used in various industries. In food, it is used as thickener, gelling agent, and stabilizer to improve the texture and stability of products such as sauces, soups, desserts and vegetarian or vegan meat substitutes. In addition to the food industry, methylcellulose also plays an important role in the pharmaceutical-, cosmetics- and technical industries for paper, textiles, paste and mortar mixtures.





ADVANTAGES IN DIFFERENT APPLICATIONS

QUEMINA® serves as the ideal alternative for methylcellulose in plant-based meat alternatives. It contributes to achieve a smooth texture and viscosity necessary for e.g. vegan “Frankfurter/Wiener type sausages”. In combination with AGENAFIBER® you obtain a fibrous texture additional to a remarkable water binding capacity. This results in a meat-like and juicy mouthfeel which makes it an optimal ingredient for e.g. vegan beef burger patties.



METHYLCELLULOSE

Declaration: “gelling agent: methylcellulose (E461)”

QUEMINA®

Declaration: “Starch” or “corn starch”



IDEAL FOR PLANT-BASED ALTERNATIVES

- Adds elasticity to the final product
- Remarkable viscosity properties
- NON-GMO and allergen free alternative
- Suitable for Clean Label products

IMPORTANT FACTS

The conventional QUEMINA® 21.200 and the organic QUEMINA® 21.204 were developed as natural alternative for methylcellulose. These replace methylcellulose in a ratio of 1 : 1.4, resulting in a homogeneous and smooth texture, as found in meat loaf, for example.

For foods where a somewhat coarser texture is desired, potato fibers such as AGENAFIBER® can also be used. Additionally, AGENAFIBER® increases the water binding capacity, which gives more juiciness and provides a more succulent mouthfeel. This allows the declaration of E461 in the ingredient list to be replaced by „starch“.

AGRANA’s QUEMINA®, combined with organic potato fiber, AGENAFIBER® and (organic) pregelatinized starches, QUEMINA® are the perfect fit for plant-based products, helping to stabilize particles in liquids, preventing phase separation in the final products and replacing methylcellulose in vegan meat-alternatives.



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USE CASES

Are you interested in use cases? Contact us to get our guideline formulations for example for:

- Vegetarian “Leberkäse”
- Vegan Paté “Streichwurst”
- Vegan Beef Patties
- Vegan “Bratwurst”

