



PURITY REQUIREMENTS OF PECTINS

Extract from „The Specialists for Pectin“



PURITY REQUIREMENTS OF PECTINS

International Specification	EU E440 (i) Pectin	EU E440 (ii) amidated Pectin	FAO/WHO JECFA Pectins	FDA/FCC Pectins	USP Pectin
1. Loss on drying	max. 12 %	max. 12 %	max. 12 %	max. 12.0 %	max. 10.0 %
2. Acid-insoluble ash (in approx. 3N HCl)	max. 1 %	max. 1 %	max. 1 %	max. 1.0 %	–
3. Total insolubles	max. 3 %	max. 3 %	max. 3 %	max. 3.0 %	–
4. Sodium methyl sulfate	–	–	–	max. 0.1 %	–
5. Free methyl, ethyl, isopropyl alcohol	max. 1 % on the volatile matter-free basis	max. 1 %	max. 1 %	max. 1.0 %	max. 1 %
6. Sulphur dioxide	max. 50 ppm on the anhydrous basis	max. 50 ppm	max. 50 ppm	max. 50 ppm	max. 50 ppm
7. Nitrogen content (after washing with acid and ethanol)	max. 1.0 %	max. 2.5 %	max. 2.5 %	–	–
8. Galacturonic acid (on ash-free and anhydrous basis)	min. 65 %	min. 65 %	min. 65 %	min. 65.0 %	min. 74.0 %
9. Degree of amidation (amidated pectins)	–	max. 25 %	max. 25 %	max. 25 %	–
10. Sugar and organic acids	–	–	–	–	max. 16 %
11. Arsenic	max. 0.1 ppm	max. 0.1 ppm	–	–	max. 3 ppm
12. Lead	max. 1 ppm max. 0.3 ppm if added to foods for infants and young children	max. 1 ppm	max. 2 ppm 0.5 ppm if added to dried infant formulae	max. 5 ppm	max. 5 ppm
13. Cadmium	max. 0.5 ppm max. 0.1 ppm if added to foods for infants and young children	max. 0.5 ppm	–		

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14. Mercury	max. 0.1 ppm	max. 0.1 ppm	–	–	–
15. Aluminium	max. 200 ppm max. 120 ppm if added to foods for infants and young children	max. 200 ppm	–	–	–
16. Microbiological Criteria					
16.1. Total aerobic microbial count	–	–	–	–	max. 1000 CFU/g
16.2. Yeasts and Molds	–	–	–	–	max. 100 CFU/g
16.3. <i>Enterobacteriaceae</i>	absent in 10 g (only if added to dried infant formulae, dried foods for special medical purposes intended for infants below 6 months of age and dried follow-on formulae)		–	–	–
16.4. <i>Escherichia coli</i>	absent in 10 g		–	–	–
16.5. <i>Salmonella</i> spp.	absent in 25 g (only if added to dried infant formulae, dried foods for special medical purposes intended for infants below 6 months of age and dried follow-on formulae)		–	–	–
16.6. <i>Cronobacter</i> spp. (<i>Enterobacter sakazakii</i>)	absent in 10 g (only if added to dried infant formulae and dried foods for special medical purposes intended for infants below 6 months of age)		–	–	–
17. Pesticides	according to general food regulations				

– = no specifications

EU = European Union

FAO/WHO = Food & Agriculture Organization/World Health Org.

JECFA = Joint Expert Committee on Food Additives

USP = United States Pharmacopeia

FDA = Food and Drug Administration

FCC = Food Chemicals Codex