



Certificate of Analysis

1.00662.0000 Sorbic acid EMPROVE® ESSENTIAL Ph Eur,BP,ChP,NF,FCC,E 200
Batch K56301362

	Spec. Values		Batch Values	
Assay (acidimetric, calc. on anhydrous substance)	99.0 - 101.0	%	99.8	%
Assay (HPLC, calc. on anhydrous substance)	98.0 - 102.0	%	98.8	%
Identity (IR)	passes test		passes test	
Identity (wet chemistry)	passes test		passes test	
Identity (Melting point)	passes test		passes test	
Identity (Melting range)	passes test		passes test	
Identity (UV/VIS-Spectroscopy)	passes test		passes test	
Identity (UV/VIS-Spectroscopy) (ChP)	passes test		passes test	
Appearance of solution (5 %; ethanol 96 %)	passes test		passes test	
Clarity and color of solution (ChP)	passes test		passes test	
Melting point	132 - 136	°C	135	°C
Melting range (lower value)	≥ 133	°C	> 134	°C
Melting range (upper value)	≤ 135	°C	< 135	°C
Heavy metals (as Pb)	≤ 0.001	%	≤ 0.001	%
As (Arsenic)	≤ 0.0003	%	≤ 0.0003	%
Cd (Cadmium)	≤ 0.001	%	≤ 0.001	%
Cu (Copper)	≤ 0.001	%	≤ 0.001	%
Hg (Mercury)	≤ 0.0001	%	≤ 0.0001	%
Pb (Lead)	≤ 0.0002	%	≤ 0.0002	%
Zn (Zinc)	≤ 0.001	%	≤ 0.001	%
Aldehydes (as Acetaldehyd)	≤ 0.15	%	≤ 0.15	%
Acetone	≤ 5000	ppm	≤ 5000	ppm
Other residual solvents (ICH Q3C)	excluded by the manufacturing process		excluded by the manufacturing process	
Thermal stability (105 °C)	No coloration		No coloration	
Water	≤ 0.5	%	0.1	%
Sulfated ash	≤ 0.1	%	< 0.1	%

Elemental impurity specifications have been set considering ICH Q3D (Guideline for Elemental Impurities). Class 1-3 elements are not likely to be present above the ICH Q3D option 1 limit, unless specified and indicated (*).

Conforms to the purity criteria on food additives according to the current European Commission Regulation.

Corresponds to Ph Eur, BP, ChP, NF, FCC, E 200

Date of manufacture (DD.MM.YYYY) 13.01.2024

Date of examination (DD.MM.YYYY) 18.11.2024

Minimum shelf life (DD.MM.YYYY) 31.01.2027

Julian Hofmann

Responsible laboratory manager quality control

This document has been produced electronically and is valid without a signature.