

Certificate of Analysis

Shin-Etsu Chemical Co., Ltd.
Naoetsu Plant Quality Assurance Department
28-1, Nishifukushima, Kubiki-ku,
Joetsu-shi, Niigata, Japan

Product Name L-HPC
(Low-Substituted Hydroxypropyl Cellulose, NF)
Grade LH-11
Lot Number 3103259
Quantity 850kg
Manufacture Date 2023/10/23
Recommended Re-Evaluation Date * 2026/10/22
Analysis Date 2023/10/25
Issue No. D5120231204910002-1-01
Remark

This product complies with the specifications described in the current NF, EP and JP.

This product is manufactured in accordance with GMP.

* Shin-Etsu Chemical recommends that the customer's quality control unit may re-evaluate the quality of this material on its own responsibility prior to use after the Recommended Re-Evaluation date.

Storage Conditions: Store containers sealed and in a dry place. Keep away from heat or sunlight.

Test Item	Unit	Test Result	Specification	Method
Description		Conforms	Conforms	JP/NF
Characters		Conforms	Conforms	EP
Identification (1)/B		Conforms	Conforms	JP/NF/EP
Identification (2)/C		Conforms	Conforms	JP/NF/EP
Identification (3)/A		Conforms	Conforms	JP/NF/EP
pH		6.5	5.0 - 7.5	JP/NF/EP
Chloride	%	Not more than 0.36	Not more than 0.36	NF
Loss on drying	%	1.2	Not more than 5.0	JP/NF/EP
Residue on ignition	%	0.13	Not more than 0.8	JP/NF/EP
Hydroxypropoxy content	%	11.2	10.0 - 12.9	JP/NF/EP
Particle size: Average (D50)	μm	57.9	45 - 65	Shin-Etsu
Particle size: 90% cumulation (D90)	μm	187.0	150 - 200	Shin-Etsu

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Sakae Obara
General Manager, Q. A. Dept.

Shin-Etsu No. : 73122894-01-01

Issue:
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Judgment:
Shin-Etsu Chemical Co., Ltd.
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