



# DALIAN HANDOM CHEMICALS CO.,LTD.

Add.: RM702, Unit 1, Building 21, Liuhe Road, Ganjingzi Dist, Dalian, Liaoning, China  
E-mail: info@handomchemicals.com Web.: www.handomchemicals.com

## Certificate of Analysis

**Product Name:** Soya Lecithin(Injection Grade)

**Batch No.:** HDC20231212

**Manufacturing Date:** Dec 12<sup>th</sup>, 2023

**Retest Date:** Dec 11<sup>th</sup>, 2024

**Quantity:** 50.00kg

**Packing:** 1kg/Aluminum Foil Bag

**Test based on:** "Soybean Lecithin Quality Standard" HDC-STP-QA-ZL-23-06

Test Items		Specifications	Test Results
Appearance		This product is yellow to brown semi-solid, blocky	Yellow block
Solubility		This product is easily soluble in ether and ethanol, but insoluble in acetone.	Conforms
Acid Value		Not more than 30 mgKOH/g	0.15 mgKOH/g
Iodine Value		Not less than 75 gI/100g	101 gI/100g
POV		Not more than 3.0	0.40
Identification Test		(1) White precipitate should be produced	Consistent with standard requirements
		(2) Brick red precipitate should be produced	Consistent with standard requirements
		(3) In the chromatograms recorded by phosphatidylcholine and phosphatidylethanolamine under the content determination item, the retention time of the main peak of the test solution should be consistent with that of the main peak of the control solution.	Conforms
Colour of solution		The absorbance at 350nm wavelength should not exceed 0.8	0.1
Substances insoluble in acetone		Not less than 90.0%	97.8%
Substances insoluble in hexane		Not more than 0.3%	0.06%
Moisture		Not more than 1.5%	0.71%
Protein Content		No protein should be detected in this product (the solution should not be blue-purple or red-purple)	Conforms
Heavy Metals		Not more than 0.0005%	<0.0005%
Arsenic salts		Not more than 0.0002%	<0.0002%
Lead (Pb)		Not more than 0.0002%	<0.0002%
	Ethanol	Not more than 0.2%	0.08%
	Acetone	Not more than 0.2%	0.0007%
	Diethyl Ether	Not more than 0.2%	Not detected



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Residual Solvents	Petroleum Ether	Not more than 0.05%	Not detected
	n-Hexane	Not more than 0.02%	Not detected
	Dichloromethane (In-house)	Not more than 0.06%	Not detected
Total Residual Solvents		Not more than 0.5%	0.08%
Related Substances	The content of lysophosphatidylethanol amine (LPE)	Should not exceed 1%	Not detected
	The content of lysophosphatidylcholine (LPC)	Should not exceed 3.5%	1.9%
	The total content of lysophosphatidylethanol amine (LPE) and lysophosphatidylcholine (LPC)	Should not exceed 4.0%	1.9%
	Phosphatidylinositol (PI)	Should not exceed 5.0%	Not detected
Total Related Substances		Not more than 8.0%	1.9%
Microbial Limits	The total number of aerobic bacteria detected per 1g shall not exceed 100 CFU		< 10 CFU/g
	The total number of mold and yeasts detected per 1g shall not exceed 100 CFU		< 10 CFU/g
	No Escherichia coli should be detected per 1g		Not detected
	No Salmonella shall be detected per 10g		Not detected
Bacterial endotoxin		The amount of endotoxin in each 1g of soybean lecithin should be less than 2.0EU	Conforms
Content Determination (On the anhydrous basis)	Phosphorus (P) content should not be less than 2.7%		3.6%
	The nitrogen (N) content of this product should be between 1.5% and 2.0%		1.7%
	The content of phosphatidylcholine (PC) should not be less than 45.0%		98.3%
	The content of phosphatidylethanolamine (PE) should not exceed 30.0%		Not detected
	The total amount of phosphatidylcholine (PC) and phosphatidylethanolamine (PE) should not be less than 70.0%		98.3%



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**Conclusion:** The testing results of this batch are complied with the Standard of "Soybean Lecithin Quality Standard" HDC-STP-QA-ZL-23-06.

**Storage Conditions:** Preserved in unopened original containers in a cool dry place before using; kept away from direct sunlight, heat and moisture.

**Analyst:** QIAN WANG

**QC Supervisor:** LIPING ZHANG

**QA Director:** ZIFENG LIN

