



大连汉德姆精细化学品有限公司

DALIAN HANDOM CHEMICALS CO.,LTD.

Certificate of Analysis

Product Name: Vitamin B₂-5-Phosphate (Riboflavin 5'-Phosphate Sodium)

CAS No.: 130-40-5

Molecular Formula: C₁₇H₂₀N₄NaO₉P

Batch Number: HDC20230524

Manufacturing Date: May 24th, 2023

Report Date: May 25th, 2023

EINECS No.: 204-988-6

Molecular Weight: 478.33

Batch Quantity: 500kg

Retest Date: May 23rd, 2025

Packing Size: 25kg/Drum

Test Items		Specifications	Test Results
Appearance		Yellow or orange yellow crystalline powder	Conforms
Identification	A: Fluorescence test	The solution is pale greenish yellow by transmitted light, and it exhibits an intense yellowish green fluorescence by reflected light under long-wavelength UV light that disappears upon the addition of mineral acids or alkalies	Conforms
	B: Reactions of Sodium Salt & Phosphates	The filtrate gives reaction of sodium and reaction of phosphate	Conforms
Related Substances	Free Riboflavin	Not more than 6.0%	4.3%
	Riboflavin DiPhosphate	Not more than 6.0%	3.1%
Inorganic Phosphate		Not more than 1%	1%
Specific Optical Rotation		+37.0° ~ +42.0°	+40.4°
pH of 1.0% Solution		5.0 ~ 6.5	5.8
Lumiflavin		Absorbance: Not more than 0.025	0.002
Sulphated Ash		Not more than 25.0%	21.2%
Loss on Drying		Not more than 7.5%	5.0%
Heavy Metals		Not more than 10 ppm	<10 ppm
Cadmium (Cd)		Not more than 1 ppm	0.175 ppm
Arsenic (As)		Not more than 1 ppm	<0.01 ppm
Lead (Pb)		Not more than 2 ppm	0.383 ppm
Mercury (Hg)		Not more than 0.1 ppm	<0.005 ppm
Assay of Riboflavin (on dried basis)		73.0% ~ 79.0%	73.2%
Residual Solvents	Methanol	Not more than 3000 ppm	89 ppm
	Acetonitrile	Not more than 410 ppm	Not detected



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	Pyridine	Not more than 200 ppm	46 ppm
Microbial Test	Total Aerobic Microbial Count	Not more than 1000 CFU/g	<10 CFU/g
	Yeasts & Moulds	Not more than 100 CFU/g	<10 CFU/g
	Escherichia coli	Negative/g	Not detected
	Salmonella	Negative/g	Not detected
	Staphylococcus aureus	Negative/g	Not detected

Conclusion: The testing results of this batch are complied with the Standard of USP43.

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