



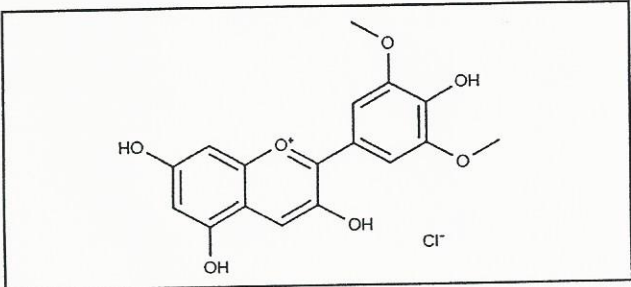
INDOFINE Chemical Company, Inc.

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Certificate Of Analysis

020913S MALVIDIN CHLORIDE Lot No.: 16012630

CASRN	643-84-5
MOL FORMULA	C ₁₇ H ₁₅ O ₇ Cl
MOL WEIGHT	366,75



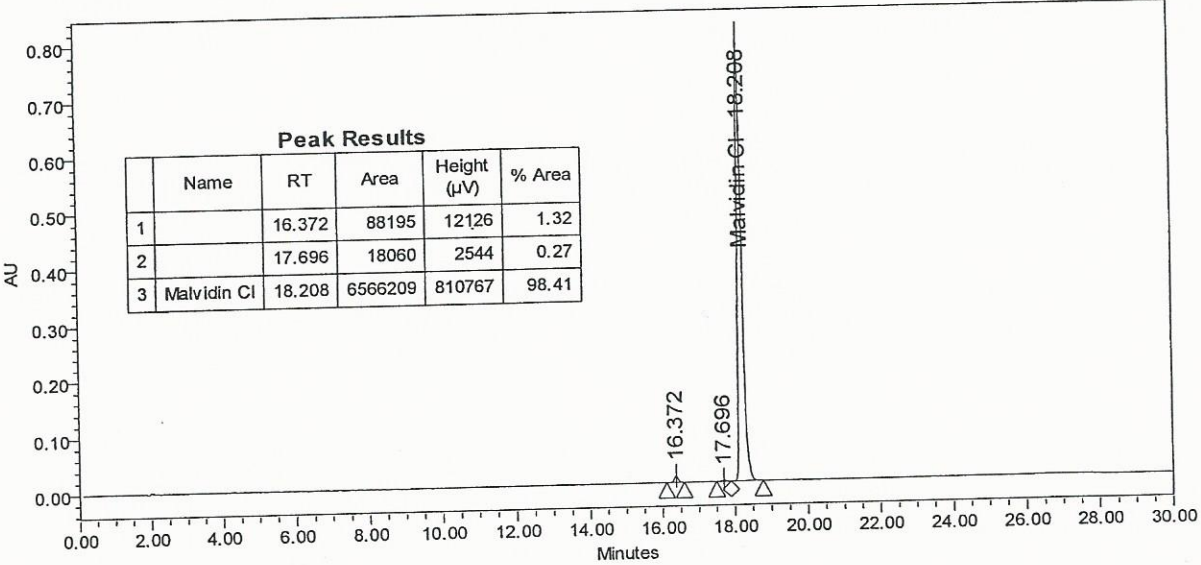
TEST	METHOD	UNIT	SPECIFICATION	RESULT
Appearance	Visual		Dark powder	Conform
Potency	UV		ϵ (546 nm, MeOH+0,1% HCl) = 38 750 +/- 1500	37 880
Water content	KF	%w/w		10,5
Residual solvents	GC-MS	%w/w		<0,1
Inorganics	ICP-MS	%w/w		0,1
Purity	HPLC	%area	$\geq 97,0$	98,4
Assay	Calculated (*)	%w/w		88,0

(*) Assay = Purity by HPLC x (100 - %water - %solvents - %inorganics)

CHROMATOGRAPHIC PURITY / HPLC

Column : Atlantis dC18 - 4,6x150 mm - 3 μ m
 Mobile phase : Gradient: B from 5% to 60% in 20 min then 60% to 100% in 5 min then 5 min isocratic 100%
 A = Water + 10% HCOOH / B = MeOH
 Detection : UV 540 nm

Temperature : 30°C
 Flow rate : 1 ml/min
 Injection volume : 5 μ l
 Injection solvent : MeOH + 0,1% HCl



LONG TERM STORAGE: Below -15°C in a dry and dark place