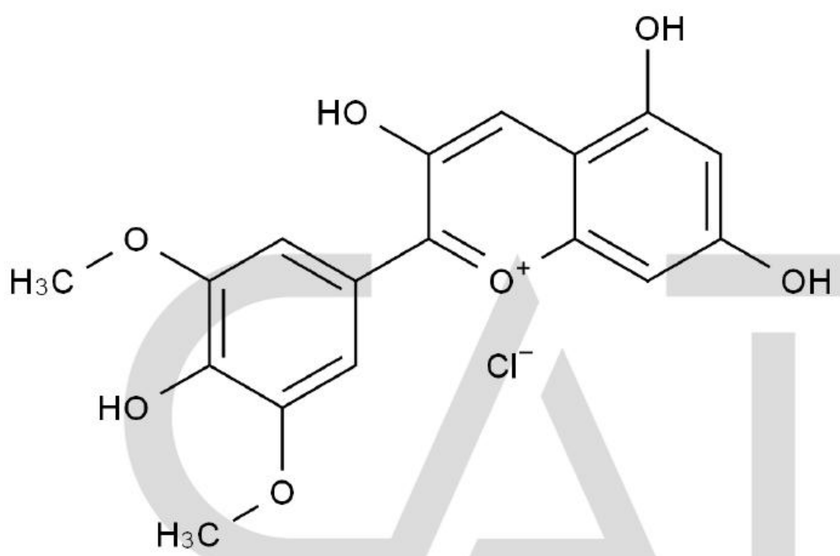
Certificate of Analysis

Reference Material & Standard

Product Name:	Malvidin Chloride	**Catalogue Number:**	CCPE901358
Synonyms:	N/A	**Lot Number:**	0819-RH-0087
CAS Number:	643-84-5	**Expiry Date:**	Apr 13, 2030
Molecular Formula:	$C_{17}H_{15}O_7Cl$	**Storage:**	-20°C±5°C Protected from light and Sealed
Molecular Weight:	331.30 35.45	**Shipping Condition:**	Shipping with Ice Packs

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Dark Purple Solid
Identification	HRMS&CNMR&HNMR	Confirmed
Purity	HPLC	99.9%
Uncertainty		±0.1%

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Comment:

The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

Prepared by: Date: Aug 24, 2026

Reviewed by: Date: Aug 24, 2026

Approved by General Manager: Date: Aug 24, 2026

CATO Research Chemicals Inc.