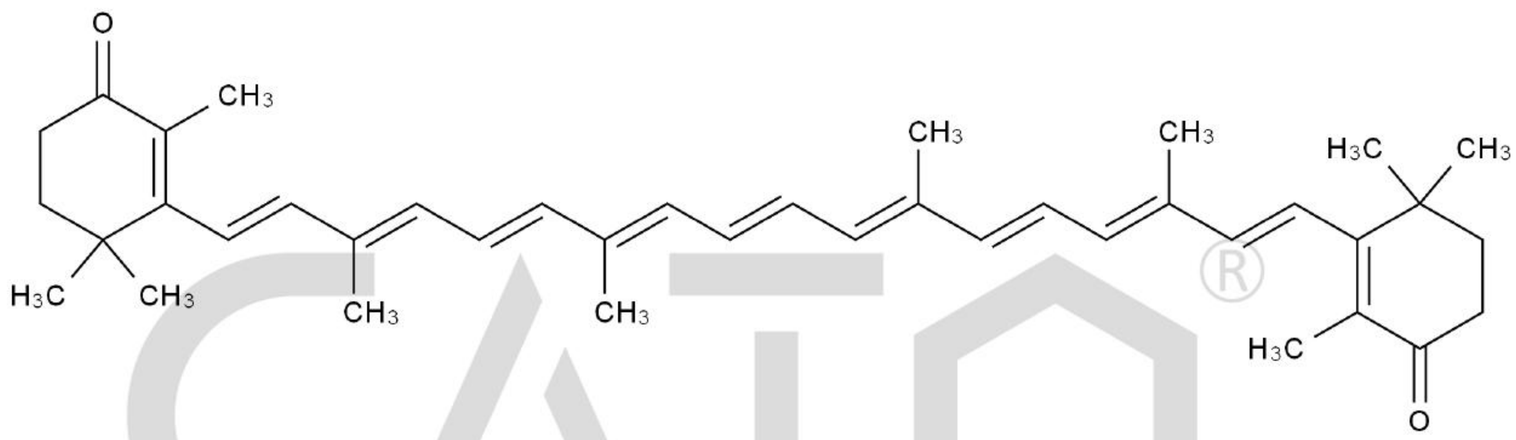
Certificate of Analysis

Reference Material & Standard

Product Name:	Canthaxanthine	**Catalogue Number:**	CWLT600135
Synonyms:	N/A	**Lot Number:**	0827-RH-0068
CAS Number:	514-78-3	**Expiry Date:**	Oct 18, 2027
Molecular Formula:	$C_{40}H_{52}O_2$	**Storage:**	-20°C±5°C Protected from light and Sealed
Molecular Weight:	564.84	**Shipping Condition:**	Shipping with Ice Packs

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Red-Brown Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	98.248%
Loss on Drying	TGA	1.4342%
Assay	Mass Balance	96.8%
Uncertainty		±0.4%

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Comment:

1. The calculation of the mass balance method follows the formula (calculated on the non-dried basis):
*Assay (%) = (100%-Loss on Drying) * Purity HPLC (%) /100%*
Loss on Drying is considered as absolute effect, HPLC purity is considered as relative effect.
2. 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: Koj Date: Oct 19, 2026

Reviewed by: Lisa Date: Oct 19, 2026

Approved by General Manager: David Date: Oct 19, 2026

CATO Research Chemicals Inc.