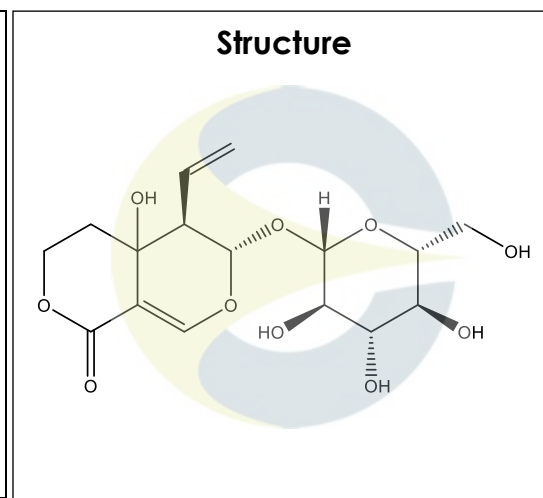


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<b>PRODUCT NAME</b>	Swertiamarin
<b>PART NUMBER</b>	00019440
<b>STANDARD TYPE</b>	Primary (P)
<b>LOT NUMBER</b>	00019440-4970
<b>REPORT NUMBER</b>	CDXA-RSS-5152-02
<b>SAMPLE NUMBER</b>	CDXA-12-4970
<b>DATE OF SAMPLE</b>	08/01/2012
<b>DATE OF RE-EVALUATION</b>	08/24/2016 (1 <sup>st</sup> ); 09/21/2020 (2 <sup>nd</sup> )
<b>DATE OF REPORT</b>	10/13/2020



<b>CHEMICAL NAMES</b>	(4aR,5R,6S)-5-ethenyl-6-(β-D-glucopyranosyloxy)-4,4a,5,6-tetrahydro-4a-hydroxy-1H,3H-pyrano[3,4-c]pyran-1-one; Swertiamaroside
<b>CHEMICAL FORMULA</b>	C <sub>16</sub> H <sub>22</sub> O <sub>10</sub>
<b>MOLECULAR WEIGHT (MW)</b>	374.34
<b>CHEMICAL FAMILY</b>	Iridoids
<b>CAS NUMBER</b>	[17388-39-5]
<b>EC#(EINECS)</b>	NA
<b>RTECS</b>	UQ1366700

**ANALYTICAL RESULTS**

TEST	METHOD	SPECIFICATION	RESULT
Adjusted Purity	NA	≥ 85%	87.7%
HPLC	0.700.10.2.METH22	≥ 90%	98.8%
NMR	99.1-CD-1.0-000122	Conforms to structure	Conforms to structure
Mass Spectrum	Direct Infusion, ESI (+)	Conforms	Conforms
Residual Solvent	99.1-CD-6.0-0000115	NA	ND
Water	0.700.12.37	NA	11.2%
Appearance	NA	NA	White powder

ADJUSTED PURITY: 87.7% IS BASED ON (100 - 0.0 SOLVENTS - 11.2 WATER) X 98.8% HPLC

**STORAGE CONDITIONS**

<b>STORAGE</b>	+4 °C in a dry place.
<b>EXPIRATION DATE</b>	09/2025 under the above conditions.

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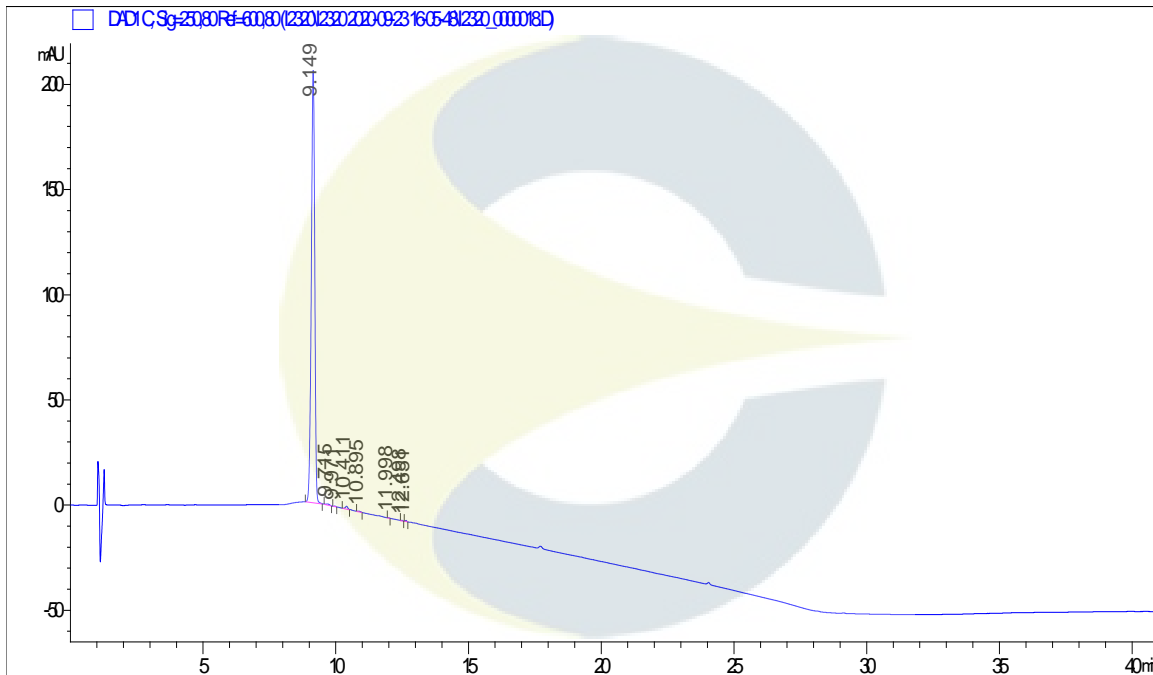
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## ANALYTICAL CONDITIONS

<b>INSTRUMENT</b>	AGILENT 1260 HPLC UV-VIS (DAD); AGILENT 6510 QTOF
<b>COLUMN</b>	Phenomenex Luna C18(2) 150 x 2.00 mm, 5 µm particle size
<b>MOBILE PHASE</b>	A - 0.1% Trifluoroacetic acid in Ultrapure water, B - Acetonitrile; Isocratic 5% B for 5 minutes, then increasing to 95% B over 20 minutes. Hold at 95% B for 15 minutes.
<b>COLUMN TEMP.</b>	60 °C
<b>FLOW RATE</b>	0.4 mL/minute
<b>INJECTION VOL.</b>	1.0 µL
<b>INJECTION CONC.</b>	1.1 mg/mL in Methanol
<b>DETECTION</b>	250 ± 40 nm

## HPLC CHROMATOGRAM OF SWERTIAMARIN (CDXA-12-4970)

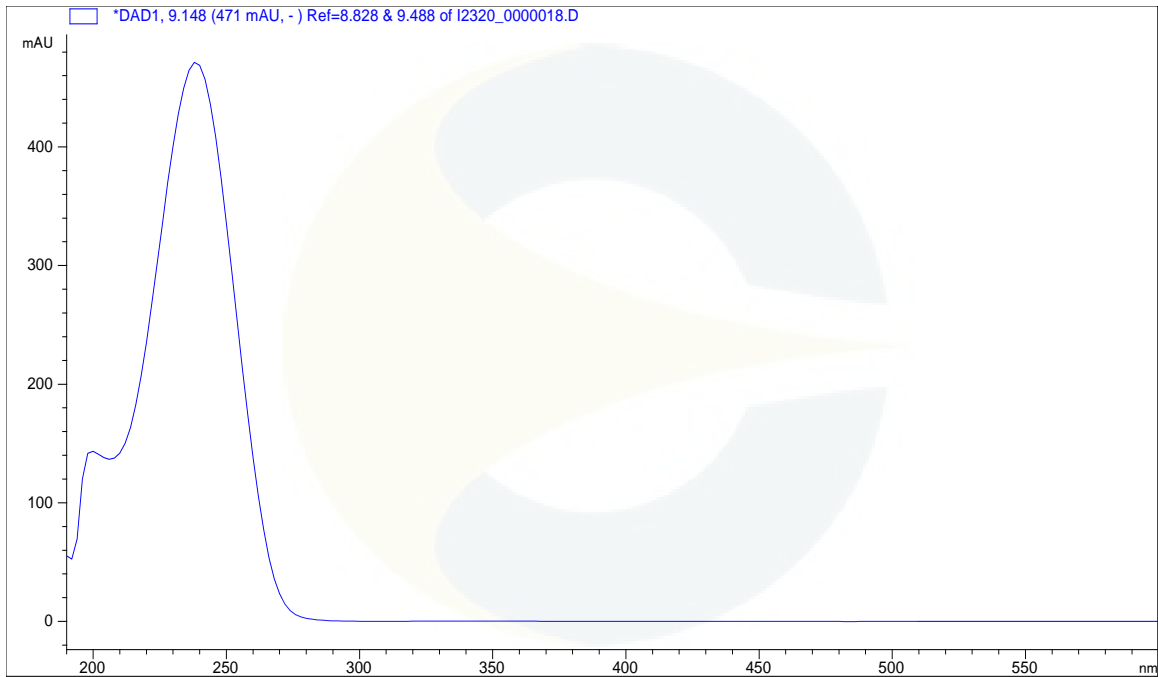


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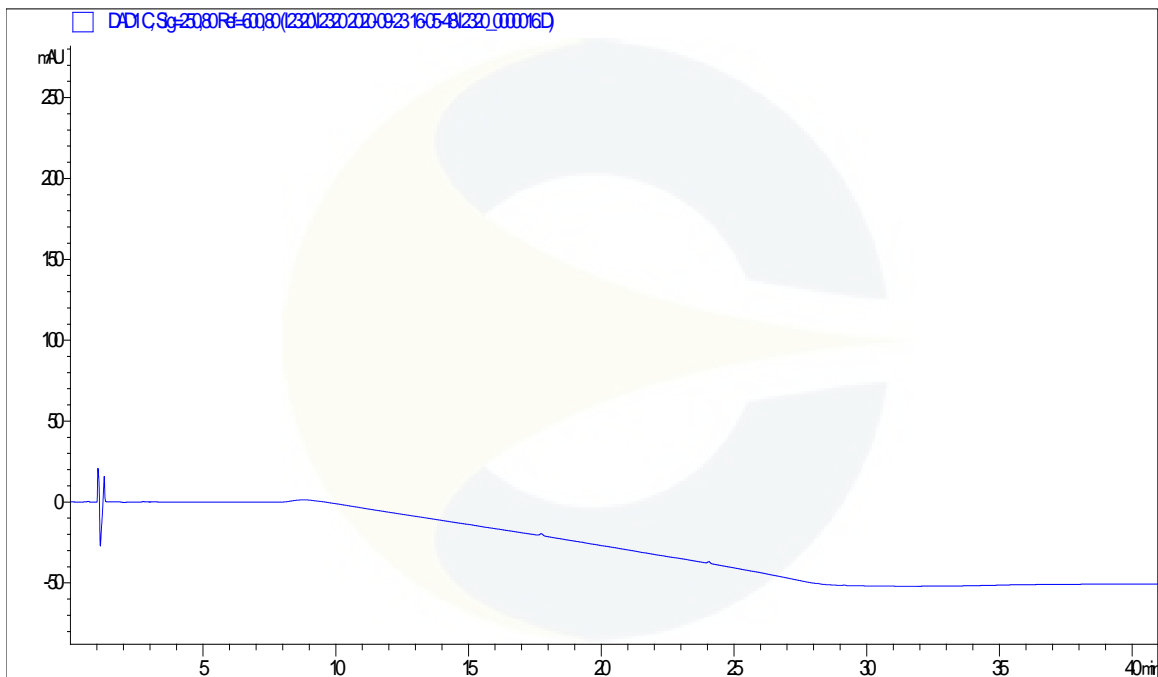
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**UV SPECTRUM AT 9.1 MINUTES**



**HPLC CHROMATOGRAM OF DILUENT BLANK**

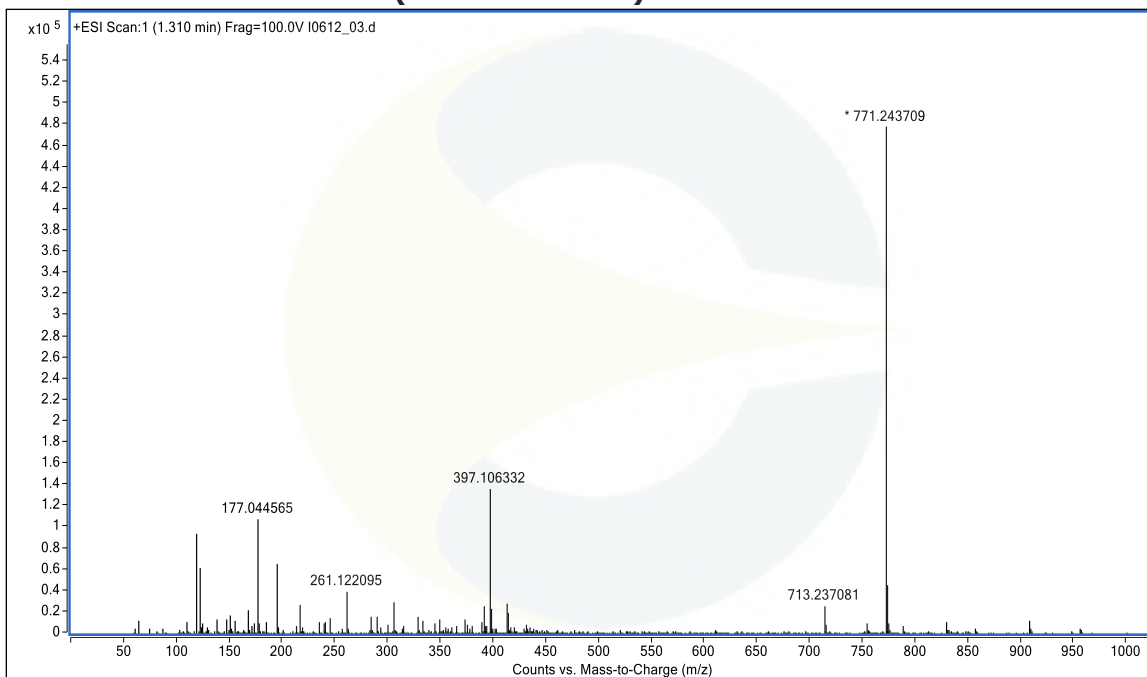


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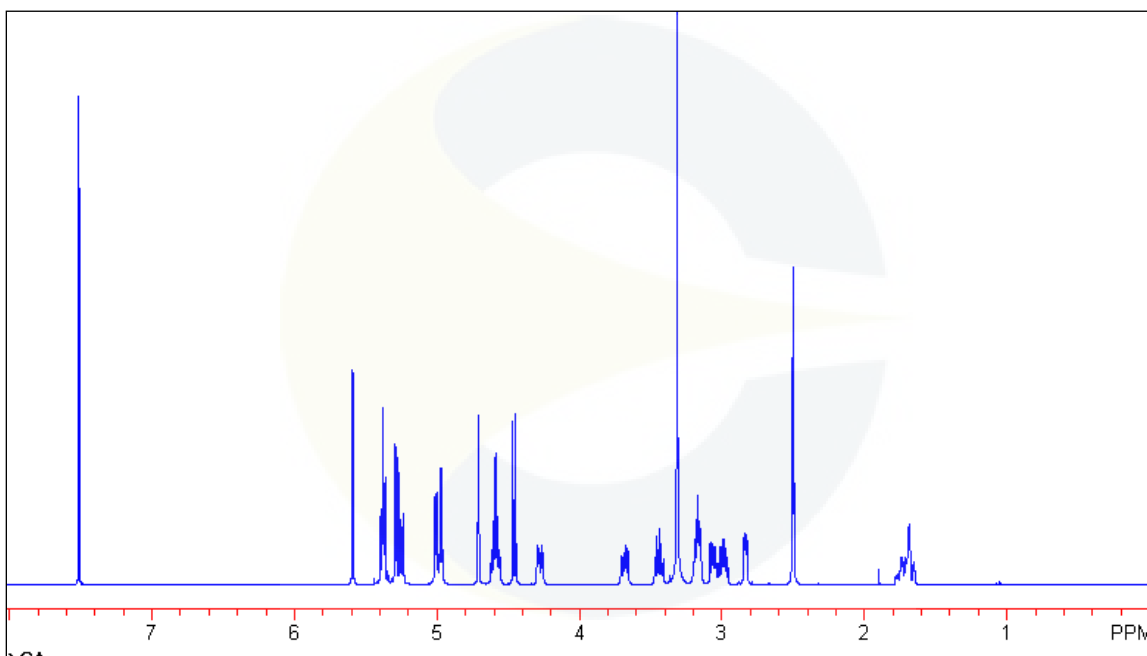
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**MASS SPECTRUM OF SWERTIAMARIN (CDXA-12-4970)**



**<sup>1</sup>H-NMR SPECTRUM OF SWERTIAMARIN (CDXA-12-4970) IN DMSO-d<sub>6</sub>**

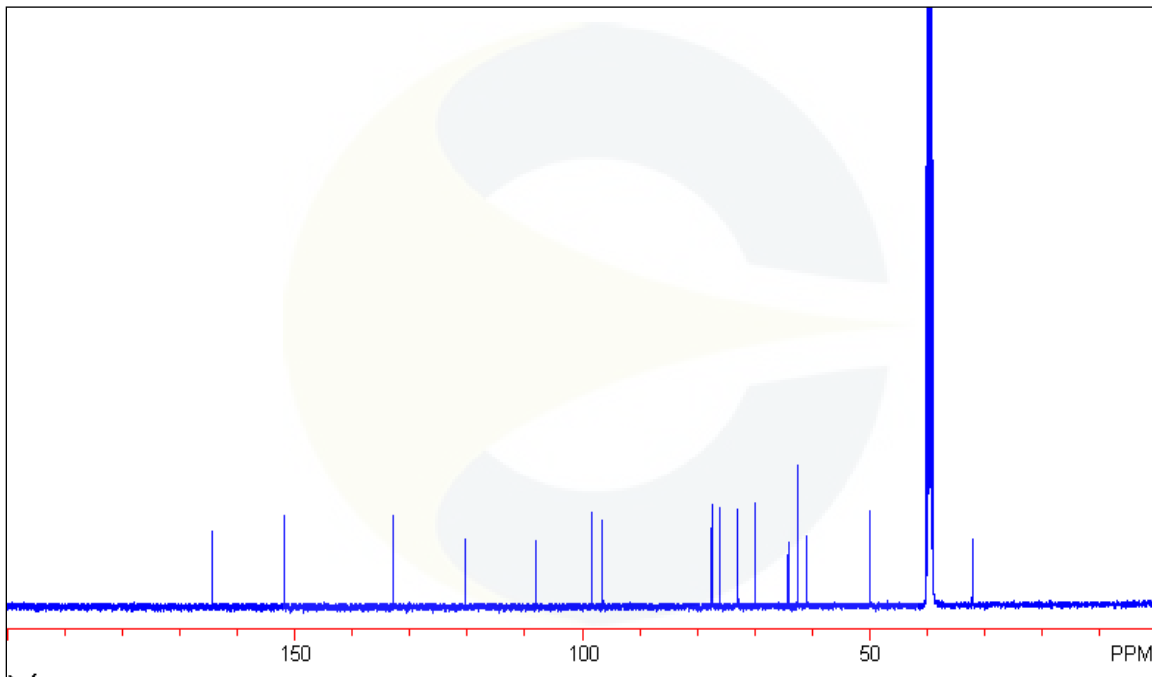


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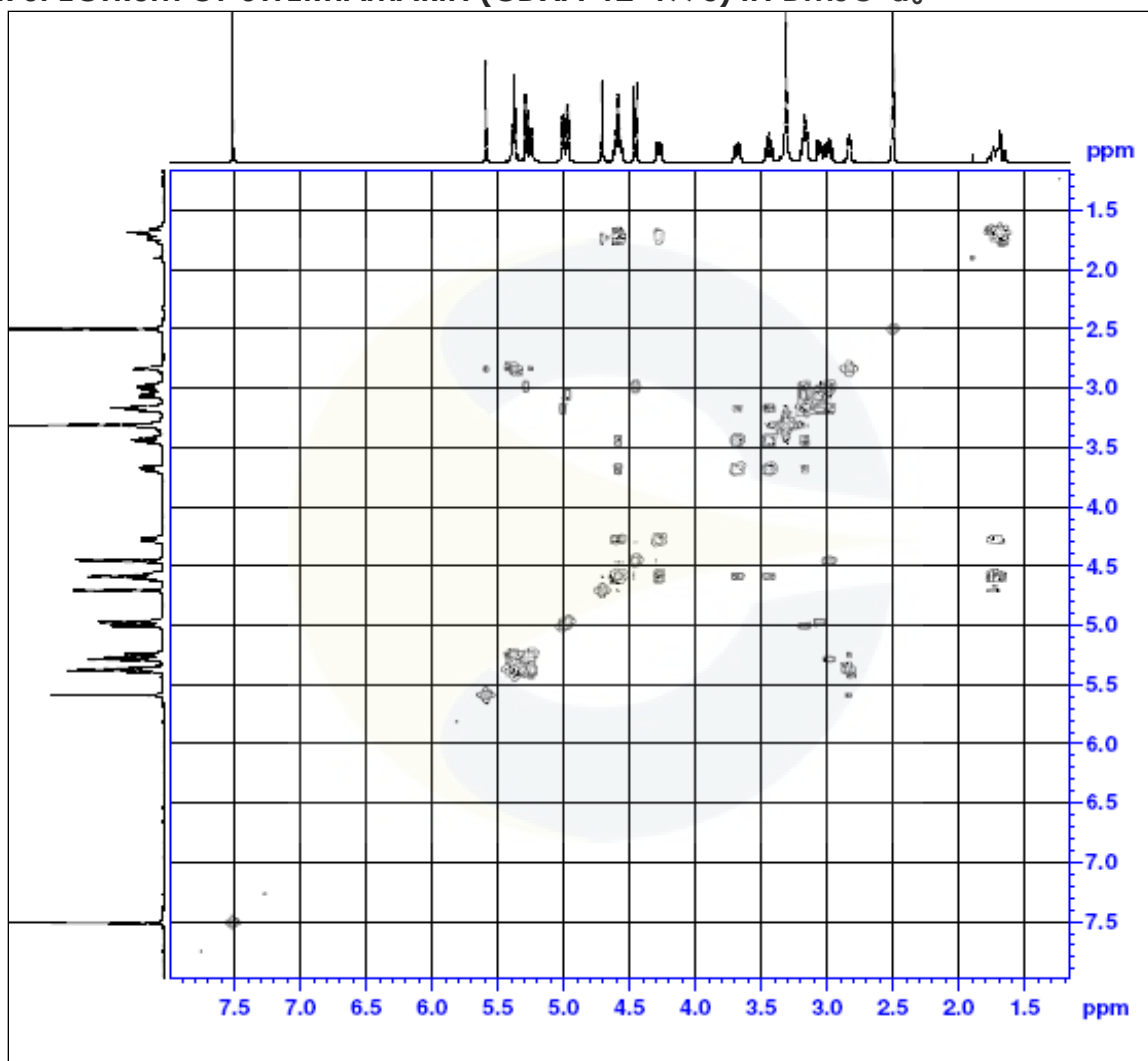
**<sup>13</sup>C-NMR SPECTRUM OF SWERTIAMARIN (CDXA-12-4970) IN DMSO-d<sub>6</sub>**



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**COSY-NMR SPECTRUM OF SWERTIAMARIN (CDXA-12-4970) IN DMSO-*d*<sub>6</sub>**

**REVISION HISTORY**

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	09/11/2012	New report
01	09/12/2016	Passed re-evaluation by HPLC, KF. Updated expiration date, chemical structure, RTECS number and melting point.
02	10/13/2020	Passed second re-evaluation by HPLC, KF. Updated expiration date, analytical conditions, chromatograms, and results. Removed melting point.

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