

Analysis report – SFE extracts

Description of sample(s)

Sample name: Oleoresin capsicum (10 types of **hot and sweet** peppers)

Sample type: Supercritical CO₂ extract

Scientific name: *Capsicum annum*, *C. chinense*, *C. frutescens*, *C. pubescens*

Manufacturing date: 06.11.2024

Shelf life: -

Volume/mass of sample(s): A total of 10 samples were taken for analysis (70–100 mg)

Customer: -

Applied methods of sample preparation and analysis

Analysis date: 05.11.2024

Analyst: Dr. Deniz Can Köseoğlu

Sample preparation:

The official **ASTA 20.1** method was used (Determination of Extractable Colour in Capsicums and Their Oleoresins)

Analyses:

Determination of extractable color in oleoresins by spectrophotometric measurement of the absorbance of an acetone solution (0.07–0.10 mg/ml) at 460 nm. Formulas:

$$ASTA = \frac{\text{absorbance at 460 nm} \times 164}{\text{sample mass (g)}}$$

$$\text{International Colour Units (ICU)} = ASTA \times 40$$

Data processing services:

-

Checked and approved by:

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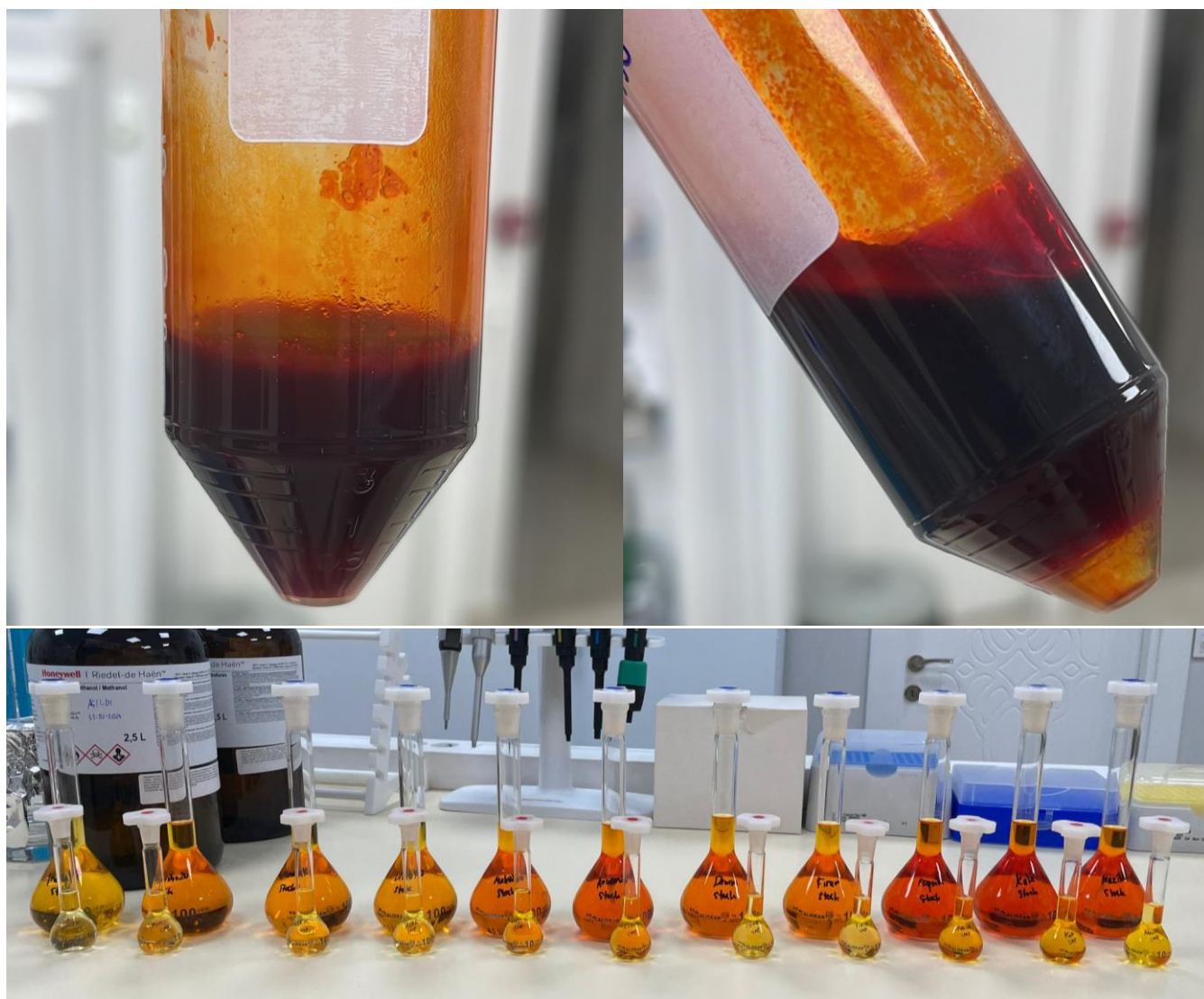
Oleoresin, hot and sweet peppers (*Capsicum annum*, *C. chinense*, *C. frutescens*, *C. pubescens*), supercritical CO₂ extract
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Results – Extractable colour measurements

Pepper name	Pepper type	Absorbance at 460 nm	ASTA colour	ICU value*
Makedon	Hot	0.499	521	20850
Arnavut	Hot	0.420	798	31926
Firer	Hot	0.455	481	19232
Urfa	Hot	0.429	264	10540
Demre	Hot	0.324	730	29196
Maraş	Hot	0.492	318	12702
Psychopath	Hot	0.428	231	9230
Nazilli	Hot	0.455	902	36092
Kale	Hot	0.724	1511	60425
Paprika (sweet)	Sweet	0.620	1163	46535

*International Colour Units

Results – Photographs of oleoresin and samples



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