AROMATICS DATA

GC-MS BATCH SUMMARY

Batch TUM-111

November 20, 2026

Turmeric Essential Oil

Curcuma longa

Essential Oil

DISTILLATION DATE	EXTRACTION	CULTIVATION	COUNTRY OF ORIGIN
March 15, 2026	Steam Distilled	Organically Grown	India

TOP 5 COMPONENTS

of 70 measured

ar-turmerone	Ketone	26.62%
turmerone	Ketone	9.38%
α-turmerone	Ketone	8.78%
ar-curcumene	Sesquiterpene	7.77%
α-zingiberene	Sesquiterpene	5.44%

Batch TUM-111 was steam distilled in March 2026 from the rhizomes of organically grown turmeric (*Curcuma longa*) in India. The rhizome is the thick underground stem of the plant, the same part that is dried and ground for the kitchen spice.

The oil is a clear yellow to orange liquid with a warm, earthy, spicy aroma and a soft woody note. Its color is rich enough to mark light fabrics, so protect your clothing when you blend with it.

An independent laboratory tested this batch by GC/MS. The full report and the certificate of analysis are available to download on this page, and the Chemistry Highlights describe what the report shows. This batch has a shelf life of five years, to March 2031, when it is stored cool, dark and tightly closed.

CHEMISTRY HIGHLIGHTS

Turmeric oil is known for its turmerones, a group of sesquiterpene ketones, and they lead this batch. ar-Turmerone is the largest at 26.62%, with α-turmerone at 8.78%, β-turmerone at 4.25% and a further turmerone isomer at 9.38%. Together they make up about 49% of the oil, and ketones as a family total 52.47%.

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Compared with our four most recent earlier batches (TUM-107 to TUM-110), this one holds a little less of the turmerones and a little more of the sesquiterpenes. In those batches ar-turmerone measured 29.46% to 34.02% and α-turmerone 11.96% to 21.89%. ar-Curcumene is higher here at 7.77% (earlier batches 4.17% to 6.15%), and α-zingiberene is 5.44%. Sesquiterpenes total 25.77%.

ar-Curcumene, α-zingiberene, β-sesquiphellandrene (2.83%) and β-bisabolene (1.86%) are close relatives of the turmerones. They share the same carbon frame, called the bisabolane skeleton. Monoterpenes are a small part of this oil at 1.45%, including 1,8-cineole at 0.39%, so the aroma stays deep and warm.

In a blend, a profile like this may feel warming and comforting, and many people choose turmeric oil for muscles and joints after effort. Use a low dilution on the skin.

The laboratory named 67 components and recorded three small unidentified peaks, 2.03% together.

Full composition · 70 components across 8 families

Ketone	**52.47%**
ar-turmerone	26.62%
turmerone	9.38%
α-turmerone	8.78%
β-turmerone	4.25%
(E)-α-atlantone	1.41%
(Z)-γ-atlantone	0.74%
(Z)-α-atlantone	0.43%
dihydro-ar-turmerone	0.30%
vestitenone	0.18%
p-methylacetophenone	0.14%
carvotanacetone	0.12%
limona ketone	0.10%
mesityl oxide	0.01%
piperitone	0.01%
Sesquiterpene	**25.77%**
ar-curcumene	7.77%

α-zingiberene	5.44%
γ-curcumene	3.01%
β-sesquiphellandrene	2.83%
β-bisabolene	1.86%
β-caryophyllene	1.19%
amorpha-4,11-diene	0.92%
β-curcumene	0.53%
(E)-γ-bisabolene	0.47%
α-caryophyllene	0.43%
α-santalene	0.28%
β-acoradiene	0.23%
δ-cadinene	0.19%
(E)-α-bergamotene	0.18%
β-vetivenene	0.17%
β-cadinene	0.14%
(E)-α-bisabolene	0.06%
α-alaskene	0.05%
α-cedrene	0.02%
Other	**7.38%**
Benzene, 1-(1,5-dimethylhexyl)-4-methyl-	3.24%
4-Methyl-4-phenylpentan-2-one	2.76%
(6r,7r)-bisabolone	0.52%
dictamnol · 8-epi-dictamnol	0.48%
acora-3,7(14)-diene	0.08%
dictamnol	0.08%
turmerol	0.08%
4-vinylguaiacol	0.07%
Dill ether	0.03%
3-Hexanone	0.02%
4-Ethylguaiacol	0.01%

Every batch is GC-MS tested by an independent lab. This report is provided for full transparency by Aromatics International.
Verify this batch: data.aromatics.com/products/turmeric-essential-oil#batch=TUM-111
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2,3-butanediol	0.01%
Monoterpene	**1.45%**
terpinolene	0.58%
p-cymene	0.33%
α-phellandrene	0.29%
limonene (d)	0.07%
β-phellandrene	0.06%
α-terpinene	0.04%
α-pinene	0.02%
γ-terpinene	0.02%
camphene	0.01%
β-myrcene	0.01%
δ-3-carene	0.01%
2-methyl-2-heptene	0.01%
Oxide	**0.39%**
1,8-cineole	0.39%
Sesquiterpenol	**0.30%**
α-bisabolol	0.16%
hinesol	0.14%
Monoterpenol	**0.21%**
myrtenol	0.08%
α-terpineol	0.08%
terpinen-4-ol	0.04%
δ-terpineol	0.01%
Phenol	**0.14%**
carvacrol	0.09%
phenol	0.03%
eugenol	0.02%



Unidentified peaks	**2.03%**
3 peaks the lab could not identify	2.03%

UK BP: 69 · RT 30.87 min 0.79% · UK BP: 105 · RT 37.12 min 0.71% · UK BP: 69 · RT 40.50 min 0.53%

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