



TECHNICAL DATA SHEET

TETRAHYDROLINALOOL

Synthetic saturated terpene alcohol with a stable fresh-floral character

1. RAW MATERIAL IDENTIFICATION

Product name	Tetrahydrolinalool
Chemical name	3,7-Dimethyloctan-3-ol
INCI name	TETRAHYDROLINALOOL
CAS number	78-69-3
EC / EINECS number	201-133-9
Molecular formula	C ₁₀ H ₂₂ O
Molecular weight	158.28 g/mol
Chemical group	Saturated terpene alcohol
Raw material type	Synthetic aroma chemical
Origin	Synthetic
Geographical origin	China
Raw material category	Synthetic aroma chemical
ISO 16128	0% natural origin

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2. OLFACTORY CLASSIFICATION AND ODOUR PROFILE

Olfactory family: Floral / Woody / Citrus-aromatic.

Position in perfume: Middle note.

Odour profile: Clean, fresh and gently sweet floral profile, with lavender nuances, a subtle lily-of-the-valley character, mild citrus freshness and a stable woody-terpenic background.

Olfactory character: Clean, soft and persistent floral character with lavender, subtly citrus and mild woody-terpenic nuances.

3. DESCRIPTION AND FUNCTION IN FRAGRANCE COMPOSITIONS

Tetrahydrolinalool is a synthetic aroma chemical from the terpene alcohol group, with a clean, fresh and subtly woody floral character. Structurally, it is a hydrogenated derivative of linalool, retaining part of its characteristic floral-lavender freshness while exhibiting greater chemical stability and a softer terpenic character.

Its odour profile combines sweet lavender, subtle lily-of-the-valley nuances and mild citrus brightness with a stable woody-terpenic background. Compared with linalool, it is less sharp and less turpentine-like, with a rounder and more persistent floral effect.

In fragrance compositions it functions primarily as a middle note. It is particularly useful in fougère and lavender compositions, where it supports a clean aromatic structure and connects fresher top notes with the floral and woody heart of the fragrance.

Functional role in perfumery: A stable fresh-floral modifier, lavender and fougère building material, and linking component between citrus, aromatic, floral and woody notes.

4. APPLICATION AND OLFACTORY COMPATIBILITY

Recommended for the creation and modification of:

- fougère and lavender compositions;
- fresh floral and lily-of-the-valley accords;
- citrus-aromatic and universal fresh fragrances;
- clean musk and light woody structures;
- functional fragrances for detergents and cleaning products;
- fragrances for perfumes, cosmetics and flavour applications.

It combines well with lavender, linalool, linalyl acetate, bergamot, lily-of-the-valley and other light floral materials, as well as clean musks and mild woody notes. In fougère structures it promotes a smooth transition between aromatic and woody components.

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5. RECOMMENDED USE

Use in perfumery	Fougère, lavender, floral and fresh citrus-aromatic compositions; functional perfumery requiring increased chemical stability
Typical concentration	No specific recommended dosage range is stated in the supplied TDS
Dosage guidance	Determine according to the desired intensity of the floral-lavender effect and the overall structure of the fragrance concentrate
IFRA note	No specific IFRA status is stated in the supplied TDS; check the current IFRA certificate for the relevant finished-product category

The dosage guidance is a formulation recommendation and does not represent a regulatory maximum. Suitability must be confirmed in the intended finished formulation.

6. PHYSICOCHEMICAL AND TECHNICAL DATA

Appearance	Liquid
Colour	Clear / colourless
Odour	Floral
Relative density at 25 °C	0.823-0.829
Refractive index at 20 °C	1.431-1.435
Flash point	76 °C, closed cup
Purity	99.0-100.0%
Antioxidants	No added antioxidants
Solubility	Not stated in the supplied TDS

The specification values above are reproduced from the supplied technical information. Batch-specific conformity should be assessed against the applicable certificate of analysis.



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7. STABILITY AND FORMULATION COMPATIBILITY

Tetrahydrolinalool has good chemical stability and is more resistant than linalool in alkaline and oxidative formulation systems. This makes it especially valuable in functional perfumery, including detergents and cleaning products, where it helps preserve floral freshness in demanding formulations.

It combines well with lavender, linalool, linalyl acetate, lily-of-the-valley materials, citrus notes, fougère ingredients, clean musks and light woody components. Stability, colour and odour performance should be confirmed in the intended finished formulation and packaging.

8. REGULATORY DATA AND STATUS

Intended use: Industrial and professional use in perfumes, cosmetics and flavour compositions.

Vegan status: Vegan; no materials of animal origin are used in the manufacturing process.

GMO status: Does not contain GMO and is not derived from GMO raw materials.

ISO 16128 status: 0% natural origin.

Halal / Kosher status: Compliant with Halal and Kosher requirements, according to the supplied information.

BSE/TSE status: Free from BSE/TSE risk. Palm oil: Does not contain palm oil, palm kernel oil or their derivatives.

IFRA status: Not stated in the supplied TDS; verify the current IFRA certificate for the relevant finished-product category.

9. STORAGE AND SHELF LIFE

Store at a maximum temperature of 25 °C in the original, tightly closed container, protected from prolonged exposure to light, heat and air. Close the container immediately after use.

Shelf life: 24 months under the recommended storage conditions.

10. SAFETY INFORMATION

Tetrahydrolinalool is intended for professional use as an ingredient in fragrance, cosmetic and flavour compositions. Avoid direct contact with the undiluted material. Use appropriate personal protective equipment and follow the current Safety Data Sheet supplied for the specific product.

11. DISCLAIMER

The information relates solely to the described raw material and does not replace the manufacturer's specification, certificate of analysis, IFRA documentation or Safety Data Sheet. The user is responsible for verifying identity, origin, purity, suitability, stability, safety and regulatory compliance in the intended application and target market. This document does not constitute regulatory approval or a guarantee of the properties of the finished product.