

TECHNICAL DATA SHEET

MELOLAL / MELONAL

Synthetic aldehydic aroma chemical with a fresh watery-fruity character

1. RAW MATERIAL IDENTIFICATION

Product name	Melolal / Melonal
Synonyms	Melolal; Melonal; Melon Touch
INCI name	DIMETHYL HEPTENAL
IUPAC name	2,6-Dimethylhept-5-enal
CAS number	106-72-9
Molecular formula	$C_9H_{16}O$
Raw material type	Synthetic aldehydic aroma chemical with a fresh watery-fruity character
Geographical origin	India
Raw material origin	Synthetic
Raw material category	Synthetic aroma chemical

2. OLFACTORY CLASSIFICATION AND ODOUR PROFILE

Melolal / Melonal belongs primarily to the Marine - Ozone olfactory family, with additional Fruity - Non Citrus and Green facets. It functions as a top-to-middle note, with its strongest effect in the top part of the composition.

Its odour is intensely fresh, watery and melon-like, with a characteristic cucumber nuance and a discreet green tone. It is particularly suitable for aquatic and ozonic compositions, summer fragrances, melon-cucumber accords, fresh fruity fragrances and floral-aquatic structures.



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3. DESCRIPTION AND FUNCTION IN FRAGRANCE COMPOSITION

Melolal is a synthetic aroma chemical with a characteristic watery-fruity profile dominated by fresh melon and cucumber nuances. Its odour is bright, diffusive and highly refreshing, with a discreet green aspect that contributes a more natural and less sweet character.

It is particularly useful for creating melon-cucumber accords and contemporary watery structures. Melon provides a juicy and slightly sweet fruity component, while cucumber introduces a cooler, greener and distinctly watery freshness. The green tone further emphasises the impression of freshly cut fruit and watery vegetation.

Melolal is especially useful in summer fragrances, aquatic compositions and light fruity-aquatic scents. It provides immediate freshness in the top part of the fragrance structure, while its fruity component enables a transition towards floral or green middle notes.

It combines well with Calone-type watery materials, Floralozone, Helional and other aquatic materials. Cis-3-Hexenol and Cis-3-Hexenyl Acetate strengthen its green dimension, while Hexyl Acetate, Manzanate and other fruity esters support more complex melon, pear and green-fruit accords.

In floral compositions, it performs well with muguet, freesia, jasmine and transparent floral materials, where it adds a watery and airy texture. Citrus notes reinforce freshness, while clean musks soften and extend its character in the dry-down.

Functional role in perfumery: Melolal acts as a powerful watery-fruity modifier and diffusive top-to-middle note. It builds melon and cucumber effects, adds green aquatic freshness and connects fruity top notes with transparent floral, ozonic and musky elements.

4. APPLICATION AND OLFACTORY COMPATIBILITY

Recommended use in fragrances: Melolal is used as a watery-fruity modifier in melon and cucumber compositions, aquatic fragrances, summer scents, floral-aquatic structures and modern fresh compositions.

It is used to create and modify:

- melon and cucumber accords;
- aquatic and ozonic compositions;
- summer and fresh fragrances;
- fruity-aquatic accords;
- floral-aquatic structures;
- green and watery compositions;
- pear and green-fruit accords;
- fragrances for cosmetic products.

It combines well with Calone-type materials, Floralozone, Helional, Cis-3-Hexenol, Cis-3-Hexenyl Acetate, Hexyl Acetate, Manzanate, citrus notes, transparent florals and clean musks.

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5. RECOMMENDED USE

Recommended use in fragrances	Melon-cucumber accords; aquatic, summer, floral-aquatic and modern fresh compositions
Typical concentrations	0.2-2% in the fragrance composition
IFRA status	Verify the current IFRA certificate and apply any restrictions for the relevant finished-product category

Gradual dosing is recommended because of its pronounced diffusion. At higher concentrations, the melon-cucumber character may become dominant. The stated range is a formulating guideline, not a regulatory maximum.

6. PHYSICOCHEMICAL AND TECHNICAL DATA

Appearance	Liquid
Colour	Pale yellow to yellow
Odour	Intense, green and melon-like, with a characteristic cucumber nuance
Olfactory character	Powerful and diffusive watery-fruity profile with melon, cucumber and green freshness
Relative density at 25 °C	0.845-0.852
Relative density at 20/4 °C	0.849-0.856
Refractive index at 25 °C	1.439-1.444
Refractive index at 20 °C	1.441-1.447
Flash point	66 °C, closed cup
Purity	85-100%
Total isomer content by GC	95-100%
Main component	2,6-Dimethylhept-5-enal: minimum 85%
6-Methyl-5-hepten-2-one	9-10%
Antioxidant	0.1% alpha-tocopherol
Solubility	Not stated in the supplied TDS
Shelf life	24 months



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7. STABILITY AND COMPATIBILITY

Protect from air, light and moisture and store under nitrogen at a lower temperature. Melolal combines well with watery and ozonic materials, green notes, fruit accords, citrus materials, transparent floral components and clean musks. Stability, compatibility, colour and odour profile must be confirmed in the finished formulation and intended packaging.

8. REGULATORY DATA AND STATUS

Vegan status: Vegan; contains no ingredients of animal origin.

GMO status: Does not contain and is not derived from genetically modified organisms.

Natural origin index - ISO 16128: 0%.

Nanomaterials: Does not contain nanomaterials according to the supplied TDS.

Palm oil: Contains no palm oil, palm kernel oil or their derivatives.

Halal and Kosher status: Halal and Kosher compatible.

9. STORAGE AND SHELF LIFE

Store under nitrogen in a cool place, at a maximum temperature of 18 °C, in the original, well-filled and hermetically sealed container, protected from prolonged exposure to light, moisture and air. Close immediately after use.

Shelf life: 24 months when stored under the recommended conditions.

10. SAFETY INFORMATION

Melolal is intended for professional use in fragrances, cosmetic fragrance compositions and flavour compositions. Avoid direct contact with the undiluted material.

Use appropriate protective equipment, avoid contact with skin and eyes and ensure adequate ventilation. Keep away from heat, sparks and open flames. Consult the current SDS before use.

The final concentration must comply with the current IFRA certificate, the safety assessment of the finished product and the regulations of the target market.

11. DISCLAIMER

The information applies solely to the described raw material and does not replace the specification, COA, IFRA documentation or SDS issued by the specific manufacturer. The user is responsible for verifying suitability, stability, safety and regulatory compliance in the intended application and target market. This document does not constitute regulatory approval or a guarantee of finished-product properties.