

TECHNICAL DATA SHEET

CIS-3-HEXENYL ACETATE

Synthetic green aroma chemical with a fresh leafy, grassy and mildly fruity character

1. RAW MATERIAL IDENTIFICATION

Product name	Cis-3-Hexenyl Acetate
Synonyms	Beta-Gamma Hexenyl Acetate 50; Leaf Acetate
INCI name	CIS-3-HEXENYL ACETATE
CAS number	3681-71-8
Molecular formula	$C_8H_{14}O_2$
Molecular weight	142.20 g/mol
Raw material type	Synthetic green, leafy and mildly fruity aroma chemical
Raw material origin	Synthetic
Geographical origin	China
Raw material category	Synthetic aroma chemical

2. OLFACTORY CLASSIFICATION AND ODOUR PROFILE

Cis-3-Hexenyl Acetate belongs primarily to the Green olfactory family, with additional Herbal - Agrestic - Mint and Fruity - Non Citrus facets. It functions as a top note and provides immediate leafy freshness and good diffusion.

Its odour is intensely fresh, green and grassy, with characteristic nuances of freshly cut grass and crushed leaves and a subtle fruity undertone. It is particularly suitable for green and leafy accords and for adding natural vegetal freshness to floral, fruity, citrus and aromatic compositions.



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3. DESCRIPTION AND FUNCTION IN FRAGRANCE COMPOSITION

Cis-3-Hexenyl Acetate is a synthetic aroma chemical with a distinctly green and fresh olfactory character. It is an important material for building natural leafy and grassy accords, with an odour that immediately evokes crushed leaves, freshly cut grass and young vegetation.

Its profile is softer and fruitier than that of strongly raw green alcohols. Alongside the dominant green-herbal facet, a subtle fruity nuance adds roundness and facilitates integration into floral and fruity compositions. The character remains fresh, transparent and natural.

In a fragrance composition, it acts primarily as a top note and shows very good diffusion. Its high volatility provides an immediate impression of greenery and freshness and makes it especially useful for realistic freshly cut leaf and grass effects.

In floral compositions, it enhances the natural character of petals and stems, while in fruity accords it creates the effect of freshly picked or slightly unripe fruit. It works especially well in apple, pear, green-fruit and selected tropical-fruit accords.

Functional role in perfumery: Cis-3-Hexenyl Acetate acts as a green top-note modifier and leafy building block. It introduces natural grassy freshness, diffusion and a mildly fruity lift into green, floral, fruity, citrus and aromatic compositions.

4. APPLICATION AND OLFACTORY COMPATIBILITY

Recommended use in fragrances: Cis-3-Hexenyl Acetate is used as a green modifier for fresh-leaf, cut-grass and vegetal notes and to introduce natural green freshness into floral, fruity, citrus and aromatic compositions.

It is used to create and modify:

- green, leafy and grassy accords;
- freshly cut grass and crushed-leaf effects;
- floral compositions with a natural stem character;
- apple, pear and green-fruit accords;
- citrus-green fragrances;
- aromatic and herbal compositions;
- fresh tropical-fruit accords;
- soaps, cosmetics and functional fragrances.

It combines well with cis-3-hexenol and other leafy materials, bergamot, lemon and other citrus notes, lily of the valley, jasmine, rose, fresh floral materials, fruity esters and aromatic ingredients.

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5. RECOMMENDED USE

Recommended use in fragrances	Green modifier for fresh leaves, cut grass and vegetal notes in floral, fruity, citrus and aromatic compositions
Typical concentrations	0.1-2.0% in the fragrance concentrate
IFRA status	Not stated in the supplied TDS; verify the current IFRA certificate for the relevant product category

Precise dosing is recommended because of its good diffusion and high volatility. Higher concentrations can produce a dominant and intensely grassy-leafy character. The stated range is a formulator's guideline, not a regulatory maximum.

6. PHYSICOCHEMICAL AND TECHNICAL DATA

Appearance	Liquid
Colour	Colourless
Odour	Fruity, green
Olfactory character	Intensely green, fresh and herbal, with freshly cut grass and leaf nuances and a mild fruity undertone
Density at 25 °C	0.896-0.901
Refractive index at 20 °C	1.425-1.429
Flash point	57 °C
Purity	98-100%
Solubility	Not stated in the supplied technical data
Shelf life	24 months



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7. STABILITY AND COMPATIBILITY

The material is highly volatile and sensitive to air and light. Store at a lower temperature under nitrogen to preserve quality. It combines well with green and leafy materials, citrus notes, fruity accords, floral components and aromatic raw materials. 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 GMOs.

Halal and Kosher status: Halal and Kosher compatible.

Nanomaterials: Not stated in the supplied TDS.

9. STORAGE AND SHELF LIFE

Store at a maximum temperature of 18 °C under nitrogen, in the original, well-filled and hermetically sealed container, protected from air and light and kept in a well-ventilated area. Reseal the container immediately after use.

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

10. SAFETY INFORMATION

Cis-3-Hexenyl Acetate is intended for professional use in perfumes, 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 during handling. 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.