

TECHNICAL DATA SHEET

C 08 OCTYL ALDEHYDE

Octanal · synthetic citrus-aldehydic aroma chemical

1. PRODUCT IDENTIFICATION

Product name	C 08 Octyl Aldehyde
Synonym	Aldehyde C 8 Octylic
CAS number	124-13-0
INCI / IUPAC name	Octanal
Molecular formula	C ₈ H ₁₆ O
Molecular weight	128.21 g/mol
Raw material type	Synthetic aldehydic aroma chemical
Olfactory family	Aldehydic, citrus
Position in perfume	Top note
Country of origin	United Kingdom

2. OLFATORY CLASSIFICATION AND ODOUR PROFILE

C 08 Octyl Aldehyde is a synthetic aroma chemical from the aldehydic-citrus olfactory family, known for its fresh, bright and clearly defined citrus-aldehydic character. Its profile combines lemon-like freshness with the typical sharpness of an aldehyde and a mild fatty-waxy nuance that adds fullness and distinction.

3. FUNCTION IN A FRAGRANCE COMPOSITION

It acts primarily as a top note, rapidly providing freshness, brightness and characteristic aldehydic projection. It is particularly useful when a citrus impression is required without relying exclusively on natural citrus oils. Its mildly fatty nuance helps bridge sharp citrus tones with the softer heart of the composition.

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4. APPLICATION AND COMPATIBILITY

C 08 Octyl Aldehyde is frequently used in classical aldehydic perfumes, eaux de cologne, citrus accords and white-floral compositions. In floral accords, it can brighten jasmine, lily of the valley, orange blossom, tuberose and other luminous floral notes, while in citrus compositions it enhances the lemon-like character and improves diffusion.

It blends well with bergamot, lemon, orange, petitgrain and neroli, as well as other C-series aldehydes. It is also useful with lavender, jasmine, lily of the valley, white musks and clean woody materials. In these combinations, it contributes a clearer opening and a stronger impression of freshness.

5. RECOMMENDED USE

It is used as a powerful citrus-aldehydic modifier in aldehydic, citrus, cologne and white-floral compositions. The typical concentration in a perfume composition is 0.01-0.1%.

Owing to its high olfactory strength, it should be used in very small quantities. At higher concentrations, the aldehydic and fatty-citrus character may become excessively dominant, whereas low dosages provide a controlled increase in freshness, diffusion and brightness.

6. PHYSICOCHEMICAL DATA

Appearance	Liquid
Colour	Pale yellow
Odour	Aldehydic, citrus
Density at 25 °C	0.816-0.821
Refractive index at 20 °C	1.417-1.420
Purity	99%
Flash point	Not specified in the technical data provided
Solubility	Not specified in the technical data provided

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7. STABILITY

The product requires protection from air and light and should be stored at a temperature not exceeding 20 °C. The stability of the finished formulation should be confirmed in the intended packaging and under the anticipated conditions of use.

8. REGULATORY AND STATUS INFORMATION

IFRA status: Use must comply with the current IFRA guidelines and restrictions applicable to the relevant finished-product category. The current IFRA certificate must be consulted during formulation.

Vegan status: Vegan; does not contain ingredients of animal origin.

GMO status: GMO-free; does not contain genetically modified organisms.

Additional status: Halal and Kosher compatible.

9. STORAGE AND SHELF LIFE

Store protected from air and light, at a temperature not exceeding 20 °C. Shelf life is 12 months under the specified storage conditions. Keep the original container tightly closed and close it immediately after use.

10. SAFETY INFORMATION

The product is a professional raw material intended for the preparation of perfumes, cosmetic fragrance compositions and flavours. Do not use undiluted as a finished product. Refer to the current Safety Data Sheet (SDS) for hazard classification, safe handling, first-aid measures and disposal instructions.

11. DISCLAIMER

The information in this technical data sheet relates to the material described and is based on the technical data provided. The user is responsible for verifying the product's suitability, stability, safety and regulatory compliance in the intended formulation and application. This document does not constitute a guarantee of the properties of the finished product.