

TECHNICAL DATA SHEET

C11 MOA ALDEHYDE

2-Methyldecan-1-al · synthetic green-aldehydic aroma chemical

1. PRODUCT IDENTIFICATION

Product name	C11 MOA Aldehyde
Chemical name	2-Methyldecan-1-al
INCI name	Methyloctyl Acetaldehyde
CAS number	19009-56-4
Molecular formula	C ₁₁ H ₂₂ O
Molecular weight	170.30 g/mol
Raw material type	Synthetic aliphatic aldehyde
Olfactory family	Aldehydic, green, citrus
Position in perfume	Top note
Natural origin (ISO 16128)	0%

2. OLFATORY CLASSIFICATION AND ODOUR PROFILE

C11 MOA Aldehyde is a synthetic aroma chemical from the aliphatic aldehyde family, chemically defined as 2-methyldecan-1-al. It has a pronounced aldehydic odour character in which a clean, intensely fresh aldehydic note is combined with mild floral-green tones and subtle lemon-like and herbal nuances.

3. FUNCTION IN A FRAGRANCE COMPOSITION

It functions primarily as a top note, contributing initial freshness, diffusion and a characteristic aldehydic effect. Its profile can intensify the impression of cleanliness and brightness, while the green and citrus nuances prevent the aldehydic character from appearing completely linear.

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4. APPLICATION AND COMPATIBILITY

C11 MOA Aldehyde is particularly important in classical floral-aldehydic perfumes, where it shapes a recognisable aldehydic opening and connects it with the floral heart. It is also suitable for chypre, green and citrus-floral accords, and for contemporary compositions requiring a more pronounced top note and aldehydic structure.

It blends well with bergamot, lemon and other citrus notes, as well as green accords and aromatic materials. In floral compositions, it combines effectively with jasmine, rose, lily of the valley, neroli and other bright floral notes. It can also be used with other aldehydes to create more complex aldehydic accords.

5. RECOMMENDED USE

It is used primarily as a top-note component in aldehydic, floral-aldehydic, green, citrus and chypre compositions, and is suitable for constructing complex aldehydic accords.

Owing to its high olfactory intensity, it is generally used in relatively small quantities and dosed precisely according to the desired aldehydic effect. An exact recommended concentration range was not specified in the technical data provided. Excessive concentration may dominate the opening and disturb the balance of the remaining notes.

6. PHYSICOCHEMICAL DATA

Appearance	Liquid
Colour	Colourless
Odour	Aldehydic
Density at 20/4 °C	0.818-0.832
Refractive index at 20 °C	1.426-1.433
Flash point	81 °C, closed cup
Total isomers by GC	95.0-100.0%
Antioxidant	0.1% α -tocopherol
Solubility	Not specified in the available technical data

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7. STABILITY

Protect the product from prolonged exposure to light and air. As an aldehydic material, it requires a tightly closed container and appropriate storage conditions. Stability in the finished formulation should be confirmed in the intended packaging.

8. REGULATORY AND STATUS INFORMATION

IFRA status: Use in the finished formulation must comply with the current IFRA certificate and any restrictions applicable to the relevant product category.

Vegan status: Vegan; does not contain ingredients of animal origin, and no animal-derived materials are used in the manufacturing process.

GMO status: Not derived from GMOs and does not contain GMOs. Nanomaterials: Does not contain nanomaterials according to the relevant regulatory definitions.

Halal status: Compliant with Halal requirements. Kosher status: Compliant with Kosher requirements.

9. STORAGE AND SHELF LIFE

Store in a tightly closed container, protected from prolonged exposure to light and air, at a temperature not exceeding 20 °C. Shelf life is 8 months under the specified storage conditions.

10. SAFETY INFORMATION

The product is intended for industrial use as a perfume and cosmetic raw material. Avoid direct contact with the undiluted 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 suitability, stability, safety and regulatory compliance in the intended formulation and application. This document does not guarantee the properties of the finished product.