

TECHNICAL DATA SHEET

ETHYL VANILLIN

Synthetic aromatic aldehyde with an intense vanilla character

1. RAW MATERIAL IDENTIFICATION

Product name	Ethyl Vanillin
Chemical name	3-Ethoxy-4-hydroxybenzaldehyde
Synonyms	Bourbonal; Ethavan; Ethyl Protal; Vanirome; Rhodiarome
INCI name	ETHYL VANILLIN
CAS number	121-32-4
EC number	204-464-7
REACH number	01-2119958961-24-XXXX
FEMA number	2464
JECFA number	893
FLAVIS number	05.019
Molecular formula	C ₉ H ₁₀ O ₃
Molecular weight	166.18 g/mol
Chemical group	Aromatic aldehyde
Raw material origin	Synthetic
Geographical origin	USA
Raw material category	Aroma chemical

2. OLFACTORY CLASSIFICATION AND ODOUR PROFILE

Ethyl Vanillin belongs to the balsamic olfactory family and functions primarily as a base note in fragrance compositions.

Its odour is intense, warm and creamy-vanilla, with caramel, balsamic and slightly powdery nuances.



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3. DESCRIPTION AND FUNCTION IN FRAGRANCE COMPOSITIONS

Ethyl Vanillin is a synthetic aroma chemical with a pronounced vanilla odour, approximately three to four times stronger than vanillin. It has a rich, creamy and sweet profile with nuances of vanilla cream, caramel, tonka and balsamic materials.

It provides intensity, warmth, sweetness and longevity. Because of its high olfactory strength, precise dosing is required, as excessive concentrations may suppress more delicate notes and make the composition overly sweet.

It blends well with vanillin, ethyl maltol, coumarin, heliotropin, benzyl salicylate, tonka materials, labdanum, benzoin, Peru balsam, musk aroma chemicals, sandalwood, patchouli, cocoa, coffee and lactonic materials.

Functional role in perfumery: A powerful vanilla base note, sweetener and fixative. It reinforces gourmand, balsamic and amber accords, adds fullness to the base and extends fragrance longevity.

4. APPLICATION AND OLFACTORY COMPATIBILITY

Recommended use in perfumery: For building intense vanilla, gourmand, caramel and balsamic base notes and for increasing the sweetness, fullness and longevity of fragrance compositions.

It is used to create and modify:

- vanilla and creamy accords;
- gourmand and dessert compositions;
- caramel, chocolate, coffee and cocoa accords;
- tonka, praline and crème brûlée fragrances;
- amber and oriental compositions;
- powdery and balsamic bases;
- milky and lactonic accords;
- floral compositions requiring a warmer and sweeter base;
- tobacco, leather and spicy fragrances;
- fragrances for soaps, cosmetics and household products.

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5. RECOMMENDED USE

Recommended use level	0.10-2.00% in the fragrance concentrate
Method of addition	Pre-dissolution is recommended before addition to the fragrance concentrate
Laboratory dilution	10% solution in ethanol, DPG, propylene glycol or another compatible perfumery solvent
IFRA status	No specific restriction according to the available certificate for the 51st IFRA Amendment
IFRA categories	Up to 100% according to the available certificate; this value is not a recommended dosage

Gentle warming may facilitate dissolution, while unnecessary prolonged exposure to high temperature should be avoided. Levels below 0.10% may be used for a subtle increase in sweetness and vanilla character. In intense gourmand compositions, the amount may be adjusted to the desired effect. The stated range is a formulation recommendation; the final concentration must be determined according to product use, current IFRA documentation and the safety assessment of the finished formulation.

6. PHYSICOCHEMICAL AND TECHNICAL DATA

Appearance	Fine crystalline powder
Colour	White to off-white
Odour	Intense, warm and creamy vanilla odour, with caramel, balsamic and slightly powdery nuances
Purity	99.9-100.0%
Density at 20 °C	Approximately 1.307
Melting point	Approximately 76-78 °C
Flash point	Approximately 127 °C, closed cup
pH value	Approximately 4.3, according to the manufacturer's specification
Solubility	Slightly soluble in water; soluble in ethanol, propylene glycol, dipropylene glycol and other suitable perfumery solvents



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7. STABILITY AND COMPATIBILITY

Stable under recommended storage conditions. Prolonged exposure to air, light and elevated temperature may cause discolouration. Compatibility, stability, colour and odour profile must be confirmed in the final formulation and intended packaging.

8. REGULATORY DATA AND STATUS

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

GMO status: Not derived from GMO and does not contain GMO.

Nanomaterials: Does not contain nanomaterials according to relevant regulatory definitions.

IFRA status: According to the available manufacturer's certificate for the 51st IFRA Amendment, Ethyl Vanillin has no specific IFRA restriction and is permitted up to 100% in all categories. This value is neither a recommended dosage nor confirmation of safety for undiluted use.

Allergen status: Ethyl Vanillin is not listed as a declarable fragrance allergen under Regulation (EU) 2023/1545. The safety and compliance of the finished product must be confirmed by an appropriate safety assessment.

9. STORAGE AND SHELF LIFE

Store at temperatures up to 20 °C in the original, hermetically sealed container, protected from light, air, moisture and heat sources.

Recommended storage temperature: Maximum 20 °C.

Shelf life: 24 months under the prescribed storage conditions.

10. SAFETY INFORMATION

Ethyl Vanillin is intended for professional use as an ingredient in fragrance, cosmetic and flavour compositions. It must not be applied directly to the skin in concentrated form.

According to the safety data sheet: H319 - Causes serious eye irritation.

Avoid generating and inhaling dust. Wear suitable protective gloves and eye protection. In case of contact with the eyes, rinse cautiously with water for several minutes.

11. DISCLAIMER

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