



TECHNICAL DATA SHEET

ISOBUTAVAN

Synthetic gourmand-balsamic vanillin derivative

1. RAW MATERIAL IDENTIFICATION

Product name	Isobutavan
Chemical name	4-Formyl-2-methoxyphenyl 2-methylpropanoate
INCI name	4-FORMYL-2-METHOXYPHENYL ISOBUTYRATE
Synonym	Vanillin Isobutyrate
CAS number	20665-85-4
Molecular formula	C ₁₂ H ₁₄ O ₄
Molecular weight	222.24 g/mol
Raw material type	Synthetic aroma chemical - vanillin derivative
Origin	Synthetic
Country of origin	Japan
Raw material category	Synthetic aroma chemical
ISO 16128	0% natural origin

2. OLFACTORY CLASSIFICATION AND ODOUR PROFILE

Isobutavan belongs to the Gourmand / Vanilla / Balsamic olfactory family and functions primarily as a middle-to-base note. It gives fragrance compositions a sweet, creamy and warm vanilla effect with good roundness and persistence.

Its profile combines vanilla with white-chocolate and cream-soda nuances, mild balsamic tones, a powdery foundation and a discreet apricot-like fruity facet.



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3. DESCRIPTION AND FUNCTION IN FRAGRANCE COMPOSITION

Isobutavan is a synthetic aroma chemical derived from the vanillin structure, with a pronounced sweet, creamy and warm vanilla character. Compared with pure vanillin, its profile is softer, rounder and less directly vanilla-like, with a more developed creamy dimension.

In fragrance compositions it acts primarily as a middle-to-base note, contributing fullness, roundness and persistence. Its structure helps connect sweet middle notes with deeper balsamic, amber and woody components of the base.

It is particularly suitable for gourmand and vanilla compositions, where it supports white-chocolate, cream, sweet-milky and warm dessert effects. In amber and floral fragrances it softens resinous and spicy materials and creates a warmer, more rounded profile.

It combines well with vanillin, ethyl vanillin, coumarin, tonka, benzoin and other balsamic materials. It also blends successfully with sandalwood, musks, amber notes and sweet woody materials. In fruity-gourmand compositions, its discreet apricot nuance can support peach, apricot and similar soft-fruit accords.

Because of its pronounced sweet and creamy character, careful dosage is required. At higher levels it can significantly alter the balance of a composition and dominate finer floral, fruity or woody elements.

Functional role in perfumery: Creamy vanilla middle-to-base note, gourmand modifier and linking material between sweet, balsamic, amber and woody elements. It contributes softness, volume and persistence.

4. APPLICATION AND OLFACTORY COMPATIBILITY

Recommended use in fragrances: As a middle- and base-note component in gourmand, vanilla, amber, balsamic and floral compositions, especially for creamy, sweet and powdery accords.

It is suitable for:

- vanilla and creamy accords;
- white-chocolate and cream-soda effects;
- gourmand and dessert compositions;
- milky and confectionery accords;
- amber and balsamic fragrances;
- floral compositions;
- soft fruity-gourmand accords;
- cosmetic and functional fragrance compositions.

It combines particularly well with vanillin, ethyl vanillin, coumarin, tonka, benzoin, balsamic materials, sandalwood, musks, amber notes and sweet woody materials.

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5. RECOMMENDED USE

Recommended use in fragrances	Gourmand, vanilla, amber, balsamic and floriantal compositions; creamy, sweet and powdery accords
Typical concentrations	A specific recommended dosage range is not stated in the supplied TDS; use gradually and determine the level according to the intended effect
IFRA status	Verify the current IFRA certificate and any category-specific restrictions before use in a finished product

Dosage should be increased gradually because the sweet, creamy character can become dominant at higher levels. Preliminary testing of compatibility, stability, colour and odour profile in the finished formulation is recommended.

6. PHYSICOCHEMICAL AND TECHNICAL DATA

Appearance	Liquid; may solidify at lower temperatures
Colour	Pale yellow to yellow
Odour	Sweet, creamy and vanilla-like
Olfactory character	Warm, soft and rounded, with vanilla, white-chocolate and cream-soda nuances, a powdery background and a mild apricot-like fruity note
Density at 20 °C	1.133-1.139
Refractive index at 20 °C	1.521-1.527
Flash point	174 °C
Boiling point	135 °C at 2 mmHg (3 hPa)
Purity	98-100%
Vanillin	0-2%
Residual solvent	Toluene
Antioxidants	Contains no added antioxidants
Solubility	Not stated in the supplied TDS



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7. STABILITY AND COMPATIBILITY

Stable when correctly stored in the original, tightly closed container, protected from light, heat and air. The material may solidify at lower temperatures; this is a physical change of state and does not necessarily indicate loss of quality. Before use, allow the closed container to return gradually to an appropriate temperature and homogenise the contents. Compatibility, stability, colour and odour profile must be confirmed in the intended formulation and packaging.

8. REGULATORY DATA AND STATUS

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

GMO status: Contains no GMOs and is not derived from GMO raw materials.

ISO 16128 status: 0% natural origin.

IFRA status: Verify the current IFRA certificate for the relevant finished-product category.

Halal status: Halal compliant. Kosher status: Meets Kosher requirements.

Animal testing: The product has not been tested on animals.

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

9. STORAGE AND SHELF LIFE

Store in the original, tightly closed container, protected from prolonged exposure to light, heat and air. Close the container immediately after use.

Recommended storage temperature: Maximum 25 °C.

Shelf life: 24 months under the prescribed storage conditions.

Physical-state note: The product may solidify at lower temperatures.

10. SAFETY INFORMATION

Isobutavan is intended for industrial and professional use in fragrances, cosmetics and flavours. Avoid direct contact with the undiluted material.

Use appropriate protective equipment, avoid contact with skin and eyes and ensure adequate ventilation. Consult the current SDS before use and follow all applicable handling and exposure-control measures.

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.