

TECHNICAL DATA SHEET

FRUCTONE

Synthetic fruity aroma chemical with a fresh apple-pineapple character

1. RAW MATERIAL IDENTIFICATION

Product name	Fructose
INCI name	ETHYL ACETOACETATE ETHYLENE GLYCOL KETAL
IUPAC name	Ethyl 2-methyl-1,3-dioxolane-2-acetate
CAS number	6413-10-1
Molecular formula	$C_8H_{14}O_4$
Raw material type	Synthetic fruity aroma chemical
Raw material origin	Synthetic
Raw material category	Synthetic aroma chemical

2. OLFACTORY CLASSIFICATION AND ODOUR PROFILE

Fructose belongs primarily to the Fruity - Non Citrus olfactory family, with an additional Fresh - Clean character. It functions as a top-to-middle note, providing a fresh, transparent and rounded fruity effect. Its odour combines characteristic apple and pineapple nuances with mild sweetness and a clean, airy texture. It is particularly suitable for fruity-floral, aquatic, citrus and fresh compositions, summer fragrances and modern light fragrance structures.



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3. DESCRIPTION AND FUNCTION IN FRAGRANCE COMPOSITION

Fructone is a synthetic aroma chemical with a characteristic modern fruity profile. Its odour combines fresh apple and pineapple nuances with mild sweetness and a clean, transparent fruity texture. Unlike heavier or distinctly syrupy fruity materials, it creates a lighter and airier effect suitable for contemporary compositions.

In a fragrance structure, it contributes an immediate impression of juicy, fresh fruit. The apple nuance adds a crisp and bright character, while the pineapple tone introduces a more exotic, mildly sweet facet. The overall profile remains rounded and clean, allowing easy integration into different fragrance types.

Fructone is especially suitable for fruity-floral fragrances, aquatic compositions and light summer scents. In floral structures, it refreshes and modernises the floral accord; in aquatic compositions, it adds fruity volume without reducing transparency. It is also useful in apple, pineapple and mixed tropical-fruit accords.

Its good stability and versatility support use in a broad range of contemporary fragrance formulations whenever a clean, recognisable fruity character without excessive weight is required.

Functional role in perfumery: Fructone acts as a fresh fruity building block and modifier. It adds juiciness, brightness and transparent volume and helps connect fruity notes with citrus, floral, aquatic and clean musky elements.

4. APPLICATION AND OLFACTORY COMPATIBILITY

Recommended use in fragrances: Fructone is used to create and enhance modern fruity accords, especially apple and pineapple notes, and in fruity-floral, aquatic, citrus and fresh compositions.

It is used to create and modify:

- apple and pineapple accords;
- mixed and tropical-fruit accords;
- fruity-floral compositions;
- aquatic and ozonic fragrances;
- citrus-fruity compositions;
- light summer fragrances;
- fresh and transparent unisex scents;
- modern clean fragrance structures.

It combines well with bergamot, lemon, mandarin and other citrus materials, fruity esters, green materials, floral accords, aquatic and ozonic materials and clean musks.

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5. RECOMMENDED USE

Recommended use in fragrances	Modern fruity accords, especially apple and pineapple; fruity-floral, aquatic, citrus and fresh compositions
Typical concentrations	Not stated in the supplied TDS
IFRA status	Not stated in the supplied TDS; verify the current IFRA certificate for the relevant product category

The concentration depends on the desired olfactory effect, product type and finished-product safety assessment. Gradual dosing and evaluation in the intended formulation are recommended.

6. PHYSICOCHEMICAL AND TECHNICAL DATA

Appearance	Liquid
Colour	Colourless
Odour	Characteristic, fruity
Olfactory character	Fresh, fruity and transparent, with apple and pineapple nuances and mild sweet roundness
Density at 20 °C	1.084-1.090
Density at 20/4 °C	1.082-1.088
Relative density at 25 °C	1.081-1.087
Refractive index at 20 °C	1.430-1.434
Flash point	94 °C, closed cup
Purity	98.0-100.0%
Solubility	Not stated in the supplied TDS
Shelf life	24 months



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7. STABILITY AND COMPATIBILITY

Stable under the specified storage conditions; prolonged exposure to light, heat and air should be avoided. It combines well with citrus materials, fresh fruity notes, floral accords, aquatic materials and clean musks. Stability, compatibility, colour and odour profile must be confirmed in the finished formulation and intended packaging.

8. REGULATORY DATA AND STATUS

Vegan status: Vegan; no raw materials of animal origin are used in the manufacturing process.

GMO status: Does not contain and is not derived from GMOs.

Halal and Kosher status: Halal and Kosher compatible.

Natural origin index - ISO 16128: 0%.

Nanomaterials: Not stated in the supplied TDS.

9. STORAGE AND SHELF LIFE

Store at a maximum temperature of 25 °C in the original, well-filled and hermetically sealed container, protected from prolonged exposure to light, heat and air. Reseal the container immediately after use.

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

10. SAFETY INFORMATION

Fructose is intended for professional use in perfumes and cosmetic fragrance 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.