



TECHNICAL DATA SHEET

IRONE ALPHA

Synthetic irone material with an elegant orris, violet and powdery character

1. RAW MATERIAL IDENTIFICATION

Product name	Irone Alpha
Chemical name	4-(2,5,6,6-Tetramethyl-2-cyclohexen-1-yl)-3-buten-2-one
INCI name	5-METHYL-ALPHA-IONONE
Synonyms	Alpha-Irone; α -Irone; 6-Methyl-Alpha-Ionone; 6-Methylionone
CAS number	79-69-6
EC / EINECS number	201-219-6
Molecular formula	C ₁₄ H ₂₂ O
Molecular weight	206.33 g/mol
Chemical group	Ionone / irone derivative
Raw material type	Synthetic aroma chemical
Origin	Synthetic
Geographical origin	Switzerland
Raw material category	Synthetic aroma chemical
ISO 16128	0% natural origin



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2. OLFATORY CLASSIFICATION AND ODOUR PROFILE

Olfactory family: Floral-orris / Powdery / Woody.

Position in perfume: Middle and base note.

Odour profile: Elegant, floral and powdery, with pronounced orris and violet notes, a mild woody character and a very fine, soft warmth.

Olfactory character: A sophisticated orris-violet profile with a soft powdery texture, discreet woody depth and pronounced elegance.

3. DESCRIPTION AND FUNCTION IN FRAGRANCE COMPOSITIONS

Irone Alpha is a prestigious synthetic aroma chemical developed to reproduce the characteristic olfactory signature of natural irones found in orris root. Its profile is distinctly orris-like, floral, powdery and mildly woody, with a recognisable violet nuance and very fine, elegant diffusion.

Compared with the stronger and more direct violet note of certain ionones, Irone Alpha provides a subtler, softer and more sophisticated effect that is closer to natural orris. It is therefore used in fine-fragrance compositions when a sense of luxury, elegance and naturalness is required without the use of exceptionally expensive natural orris butter.

In a fragrance structure, it functions mainly as a middle and base note, with very good persistence and the ability to link the floral heart with a woody, powdery or musky base. At low levels it produces a discreet orris veil, while at somewhat higher levels it becomes a clearly defined structural component.

Functional role in perfumery: An elegant orris-violet middle-to-base note, powdery floral modifier and linking component for woody, musky, vanilla and amber bases.

4. APPLICATION AND OLFATORY COMPATIBILITY

Recommended for the creation and modification of:

- orris and iris accords;
- violet accords and powdery florals;
- fine floral bases;
- floral-woody compositions;
- sophisticated musky bases;
- modern amber fragrances;
- luxury feminine and unisex fragrances;
- cosmetic fragrance compositions.

It combines especially well with Beta Ionone, methyl ionone materials, heliotropin, violet and powdery accords, sandalwood, cedarwood, musks, vanilla materials and amber components.

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5. RECOMMENDED USE

Use in perfumery	Orris and iris accords, violet, powdery compositions, floral-woody bases, musky and amber fragrances
Typical concentration	0.01-0.5% for a subtle and refined orris effect, according to the supplied product description
Dosage guidance	Small quantities are often sufficient because of the material's good diffusion and persistence; increase progressively according to the desired orris intensity
IFRA note	The maximum permitted concentration depends on the finished-product category and must be verified against the current IFRA certificate

The stated concentration range is a formulation recommendation and does not represent a regulatory maximum. Suitability must be confirmed in the intended finished formulation.

6. PHYSICOCHEMICAL AND TECHNICAL DATA

Appearance	Liquid
Colour	Pale yellow to pale amber
Odour	Floral, woody, powdery and light
Density at 20 °C	0.933-0.939
Density at 20/4 °C	0.931-0.937
Relative density at 25 °C	0.930-0.936
Refractive index at 20 °C	1.499-1.503
Refractive index at 25 °C	1.497-1.501
Flash point	127 °C, closed cup
Total isomer content by GC	97%
GC peaks	#1: 45.0-60.0%; #2: 38.0-48.0%; #3: 0.0-7.0%; #4: 0.0-3.0%
Antioxidants	Not directly added
Solubility	Not stated in the supplied TDS

The specification values above are reproduced from the supplied technical information. Batch-specific conformity should be assessed against the applicable certificate of analysis.

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7. STABILITY AND FORMULATION COMPATIBILITY

Irone Alpha is stable under the prescribed storage conditions when protected from light, heat and air.

It shows excellent compatibility with Beta Ionone, methyl ionone materials, heliotropin, violet and powdery accords, sandalwood, cedarwood, musks, vanilla materials and amber components. Stability, colour, odour and compatibility should be confirmed in the intended finished formulation and packaging.

8. REGULATORY DATA AND STATUS

Intended use: Industrial use in perfumes and cosmetics.

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

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

Halal / Kosher status: Compliant with Halal and Kosher requirements, according to the supplied information.

BSE/TSE status: Free from BSE/TSE risk; no materials of animal origin are used in production.

Palm oil: Does not contain palm oil, palm kernel oil or their derivatives.

Ionisation: The product has not undergone ionisation.

IFRA status: Verify the current IFRA certificate and the maximum permitted concentration for the relevant finished-product category.

9. STORAGE AND SHELF LIFE

Store at a maximum temperature of 25 °C in the original, fully closed container, protected from light, heat and air.

Shelf life: 24 months under the recommended storage conditions.

10. SAFETY INFORMATION

For professional use only. Avoid direct contact with the undiluted material and use appropriate personal protective equipment. Follow the current Safety Data Sheet supplied for the specific product and all applicable handling, ventilation and disposal requirements.

11. DISCLAIMER

The information relates solely to the described raw material and does not replace the manufacturer's specification, certificate of analysis, IFRA documentation or Safety Data Sheet. The user is responsible for verifying identity, origin, purity, suitability, stability, safety and regulatory compliance in the intended application and target market. This document does not constitute regulatory approval or a guarantee of the properties of the finished product.