

TECHNICAL DATA SHEET

HELIOTROPIN 50% DPG

50% solution of heliotropin in dipropylene glycol

1. RAW MATERIAL IDENTIFICATION

Product name	Heliotropin 50% DPG
Product type	50% solution of heliotropin in dipropylene glycol
Active fragrance component	Piperonal
Chemical name of active component	1,3-Benzodioxole-5-carbaldehyde
Synonyms	Heliotropin; Piperonal
INCI name	PIPERONAL, DIPROPYLENE GLYCOL
Product CAS number	Not assigned because the product is a mixture
Heliotropin CAS number	120-57-0
Heliotropin EC number	204-409-7
Heliotropin REACH number	01-2119983608-21-XXXX
Dipropylene glycol CAS number	25265-71-8
Heliotropin molecular formula	C ₈ H ₆ O ₃
Heliotropin molecular weight	150.13 g/mol
Composition	Approximately 50% heliotropin and 50% dipropylene glycol
Raw material origin	Synthetic

2. OLFACTORY CLASSIFICATION AND ODOUR PROFILE

Heliotropin 50% DPG belongs to the Powdery olfactory family and functions as a middle-to-base note in fragrance compositions.

Its odour is sweet, powdery and vanilla-like, with almond, heliotrope and violet nuances. It gives compositions softness, fullness and an elegant powdery character.



TECHNICAL DATA SHEET

3. DESCRIPTION AND FUNCTION IN FRAGRANCE COMPOSITION

Heliotropin 50% DPG is a standardised mixture of heliotropin and dipropylene glycol, prepared to facilitate the weighing and incorporation of this crystalline aroma chemical into fragrance compositions.

The odour profile is sweet, powdery and mildly floral, with recognisable vanilla, almond, heliotrope and violet nuances. It is particularly valuable in floral-powdery, gourmand, vanilla and amber compositions.

As a middle-to-base note, it softens intense floral, amber and woody structures, links sweet and powdery elements and contributes to the roundness and substantivity of the composition.

It combines well with vanillin, ethyl vanillin, ethyl maltol, coumarin, benzaldehyde, ionones, methyl ionones, iris materials, aniseed notes, benzyl salicylate, sandalwood, benzoin, tonka and powdery musk aroma chemicals.

Functional role in perfumery: A powdery and sweet modifier, building material for heliotrope accords and enhancer of vanilla, almond and floral-gourmand notes. It contributes warmth, fullness and substantivity to fragrance compositions.

4. APPLICATION AND OLFACTORY COMPATIBILITY

Recommended use in fragrances: For building powdery, vanilla, almond and floral-gourmand middle and base notes.

It is used to create and modify:

- heliotrope and violet accords;
- powdery and floral-powdery compositions;
- vanilla, almond and marzipan accords;
- gourmand and confectionery fragrances;
- iris and mimosa accords;
- floral compositions with rose, jasmine and ylang-ylang;
- amber and soft balsamic fragrances;
- creamy, milky and lactonic compositions;
- musk and powdery-woody bases;
- fragrances for soaps, cosmetic products and household-care products.

TECHNICAL DATA SHEET

5. RECOMMENDED USE

Recommended use level	0.20-6.00% of the product in the fragrance concentrate
Active-component content	1% of the product corresponds to approximately 0.50% pure heliotropin
Equivalent heliotropin range	Approximately 0.10-3.00% active fragrance component
Method of addition	May be added directly to the fragrance concentrate after homogenisation
Laboratory dilution	If required, prepare an additional 10% solution of the product in DPG or ethanol
IFRA status	No specific restriction is stated in the documentation for the 51st IFRA Amendment; verify the current certificate

If crystallisation has occurred, homogenise the product before weighing by gentle warming in a water bath. Direct heating and exposure to an open flame are not recommended. The stated range is formulation guidance and not a regulatory maximum concentration.

6. PHYSICOCHEMICAL AND TECHNICAL DATA

Appearance	Crystalline mass; separation of a liquid solvent layer may occur
Colour	Colourless, with possible gradual development of a yellowish shade
Odour	Sweet, powdery and vanilla-like, with almond, heliotrope and violet nuances
Relative density at 20 °C	1.122-1.162
Refractive index at 20 °C	1.503-1.513
Flash point	Above 100 °C, closed-cup method
Solubility	Soluble in ethanol, DPG and common perfumery solvents; not intended for direct dissolution in water
Stability	Stable under correct handling and storage conditions



TECHNICAL DATA SHEET

7. STABILITY AND COMPATIBILITY

Stable under correct handling and storage conditions. Avoid contact with strong oxidising agents, strong acids and bases. Crystallisation or separation of a small liquid DPG layer is a physical characteristic of the product and does not necessarily indicate loss of quality. Before use, gently warm the container in a water bath and homogenise the contents.

8. REGULATORY DATA AND STATUS

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

GMO status: Not derived from GMOs and contains no GMOs.

Nanomaterials: Contains no nanomaterials according to relevant regulatory definitions.

IFRA status: According to the supplier's documentation for the 51st IFRA Amendment, no specific IFRA restriction is stated. Confirm the final concentration against the current IFRA certificate, safety assessment and intended use of the finished product.

Allergen status: According to the supplier's cosmetic declaration, the product contains no declarable fragrance allergens covered by Regulation (EU) 2023/1545. Piperonal is classified as a skin sensitizer and this must be considered in the safety assessment.

9. STORAGE AND SHELF LIFE

Store at temperatures up to 25 °C in the original, well-filled and hermetically sealed container, protected from air, light and sources of heat.

Recommended storage temperature: Maximum 25 °C.

Shelf life: 24 months under the prescribed storage conditions.

10. SAFETY INFORMATION

Heliotropin 50% DPG is intended for professional use as an ingredient in fragrance and cosmetic compositions. It must not be applied directly to the skin in concentrated form.

According to the supplier's Safety Data Sheet: H317 - May cause an allergic skin reaction; H361 - Suspected of damaging fertility or the unborn child. The additional statement EUH208 indicates that the product contains piperonal and may produce an allergic reaction.

Wear suitable protective gloves, protective clothing and eye protection. Avoid inhalation of dust, vapour or aerosol and direct contact with skin and eyes. If exposed or concerned, seek medical advice.

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.