



A R O M O L O G Y

IFRA COMPLIANCE STATEMENT

IFRA Standards – 51st Amendment

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Levulinate Ethyl

Product Identification

Item	Details
Product Name	Ethyl Levulinate
Manufacturer	Synarome
Chemical Name	Ethyl 4-oxopentanoate
Alternative Name	Ethyl 4-ketovalerate
CAS Number	539-88-8
EC Number	208-728-2
FEMA Number	2442
Molecular Formula	C ₇ H ₁₂ O ₃
Molecular Weight	144.17 g/mol
Chemical Family	Keto Ester
Product Type	Synthetic Aroma Chemical
Physical Form	Liquid
Odour Family	Fruity
Odour Profile	Fruity, sweet, berry, grape, apple, green

IFRA 51 Regulatory Status

Based on the IFRA Standards applicable under the 51st Amendment, no dedicated ingredient-specific IFRA Restriction, Prohibition or Specification Standard has been identified for:

Ethyl Levulinate

CAS 539-88-8

Accordingly, the material is regarded as:

NOT RESTRICTED BY AN INGREDIENT-SPECIFIC IFRA STANDARD



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No category-specific numerical restriction is assigned to Ethyl Levulinate itself under IFRA 51.

IFRA 51 Category Assessment

IFRA Category	Maximum Level / Status
Category 1	Not Restricted / 100%*
Category 2	Not Restricted / 100%*
Category 3	Not Restricted / 100%*
Category 4	Not Restricted / 100%*
Category 5A	Not Restricted / 100%*
Category 5B	Not Restricted / 100%*
Category 5C	Not Restricted / 100%*
Category 5D	Not Restricted / 100%*
Category 6	Not Restricted / 100%*
Category 7A	Not Restricted / 100%*
Category 7B	Not Restricted / 100%*
Category 8	Not Restricted / 100%*
Category 9	Not Restricted / 100%*
Category 10A	Not Restricted / 100%*
Category 10B	Not Restricted / 100%*
Category 11A	Not Restricted / 100%*
Category 11B	Not Restricted / 100%*
Category 12	Not Restricted / 100%*

*Important Regulatory Interpretation

“100%” means that no lower maximum concentration is imposed by an ingredient-specific IFRA Standard for Ethyl Levulinate.

It does **not** mean:

- 100% dermal application is recommended;
- the neat material has been approved as a finished cosmetic;
- toxicological assessment is unnecessary; or
- a complete fragrance containing Ethyl Levulinate is automatically IFRA compliant.

IFRA Compliance Statement

Ethyl Levulinate may therefore be used according to:

- Good Manufacturing Practice
- Appropriate fragrance formulation practice
- Finished-product safety assessment
- Applicable cosmetic legislation



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- Intended consumer exposure

No specific IFRA 51 concentration restriction has been identified for the raw material itself.

Contributions from Other Sources

Ethyl Levulinate is a discrete synthetic aroma chemical rather than a natural complex substance.

No IFRA-restricted constituent contribution has been identified solely from its chemical identity.

However, a commercial material should still be evaluated for:

- Manufacturing impurities
- Added stabilisers
- Solvents or carriers
- Other intentionally added substances

where applicable.

Finished Fragrance Compliance

The finished fragrance manufacturer must still evaluate:

1. All other IFRA-restricted aroma chemicals.
2. Restricted constituents from essential oils and absolutes.
3. Phototoxic constituents.
4. Skin sensitising substances.
5. Fragrance dosage in the finished product.
6. Correct IFRA finished-product category.
7. Applicable regional cosmetic legislation.
8. Complete toxicological safety of the formulation.

Declaration

Based on the available IFRA 51 regulatory information:

- Product: Ethyl Levulinate
- Manufacturer: Synarome
- CAS Number: 539-88-8
- EC Number: 208-728-2
- FEMA Number: 2442
- No ingredient-specific IFRA restriction has been identified under the IFRA 51st Amendment.
- The material is therefore regarded as Not Restricted / 100% from an ingredient-specific IFRA perspective.
- This does not constitute a recommendation for neat consumer application.
- Good Manufacturing Practice must be followed.
- Final IFRA compliance must be assessed from the complete fragrance formulation and intended application.



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This is a representative supplier regulatory declaration and does not replace a current original Synarome IFRA certificate.

Authorised by:

Fozia Khot

Director