



CERTIFICATE OF ANALYSIS (COA)

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Natural Pyrazines 10

Product Identification

Parameter	Details
Product Name	Natural Pyrazines 1
Chemical Name	2-Ethyl-3,6-dimethylpyrazine
Alternative Name	3,6-Cocoa Pyrazine; 2,5-Dimethyl-3-ethylpyrazine
CAS Number	13360-65-1
EC Number	236-417-1
Molecular Formula	C ₈ H ₁₂ N ₂
Molecular Weight	136.20 g/mol
Product Form	Approximately 10% preparation in a perfumery carrier
Product Type	Natural or naturally derived aroma ingredient preparation
Grade	Professional perfumery grade

Composition

Component	CAS No.	Specification	Representative Result
2-Ethyl-3,6-dimethylpyrazine	13360-65-1	9.0–11.0%	10.0%
Perfumery Carrier	To be confirmed	Balance	90.0%

Possible carriers include dipropylene glycol, triethyl citrate, ethanol or another suitable perfumery solvent.

Analytical Specifications

Test	Specification	Representative Result	Method
Appearance	Clear homogeneous liquid	Complies	Visual



Colour	Colourless to pale yellow or amber	Pale yellow	Visual
Odour	Powerful roasted cocoa, coffee, nutty and toasted	Complies	Organoleptic
Active Pyrazine Content	9.0–11.0%	10.0%	GC-FID
Relative Density at 20°C	Carrier-dependent	0.990	Density meter
Refractive Index at 20°C	Carrier-dependent	1.4460	Refractometer
Water Content	Maximum 1.0%	0.22%	Karl Fischer
Acid Value	Maximum 3.0 mg KOH/g	0.4 mg KOH/g	Titration
Peroxide Value	Maximum 10.0 meq O ₂ /kg	1.8 meq O ₂ /kg	Titration
Flash Point	Carrier-dependent	Above 75°C	Closed cup
Solubility in Alcohol	Soluble or dispersible	Pass	Visual
Solubility in Water	Slightly soluble to insoluble	Complies	Visual
Foreign Matter	Absent	Pass	Visual
GC Profile	Conforms to approved reference	Pass	GC-FID/GC-MS

Organoleptic Profile

Attribute	Description
Primary Note	Roasted cocoa
Secondary Notes	Dark chocolate, coffee and toasted nut
Background	Dry woody, tobacco-like and burnt sugar
Odour Strength	Extremely powerful
Diffusion	High
Tenacity	High
Recommended Evaluation	Diluted before smelling

Purity and Quality Declaration

Parameter	Status
Professional Perfumery Grade	Yes
Natural-Origin Claim	Subject to supplier certification
Added Colour	Not intentionally added
Preservatives	Not intentionally added unless declared
Animal-Derived Ingredients	Not intentionally added
Phthalates	Not intentionally added unless declared
GMO Material	Not expected
Irradiation	Not irradiated
Direct Skin Application	Not recommended



Residual Solvents

Test	Specification	Representative Result
Residual Processing Solvents	Within applicable limits	Pass
Undeclared Volatile Solvents	Not detected above specification	Pass

The carrier solvent is an intentional formulation component and is not treated as a residual solvent.

Storage

Store:

- At approximately **15–25°C**
- In the original tightly closed container
- Away from direct sunlight
- Away from heat, sparks and ignition sources
- Away from strong oxidising agents
- With minimal exposure to air and moisture
- Out of reach of children

Shelf Life

24 months from the manufacturing date when stored unopened under recommended conditions.

Authorised by

Fozia Khot
Director
Aromology Trading LLC