



Product Data Sheet Rhovani<sup>®</sup> MB- APF PDS RVFG – July 2024

## Vanillin for Food & Flavors - Mass Balance (MB)

RHOVANIL<sup>®</sup> MB is a white to slightly off-white crystalline powder, with a typical vanilla flavor note. The product complies with the mass balance accounting requirements of the International Sustainability and Carbon Certification (ISCC) PLUS system which confirms the controlled use and traceability of renewable feedstocks in the product. Rhovani<sup>®</sup> MB assists consumers and brand owners in meeting demands for more sustainable and circular ingredients that offer reduced fossil based raw materials consumption and lower carbon footprint\*.



### Food safety and hygiene certification:

Rhovani<sup>®</sup> MB is produced from on-site upstream integrated process guaranteed with low environmental impact.

The Quality and Food Safety management systems in place in our manufacturing facilities are **certified according to FSSC 22000 (Food Safety System Certification)**.

This ensures that manufacturing is performed in respect with best practices in terms of food safety and hygiene (efficient HACCP method in place, as defined in EU Regulation 852/2004 and Codex Alimentarius). Our production sites are also ISO 9001 certified.

Rhovani<sup>®</sup> MB is certified Kosher and Halal. Certificates are available upon request.

### Identification:

N° CAS: 121-33-5

SYNONYM: Vanillin; 4-Hydroxy-3- Methoxybenzaldehyde

EMPIRICAL FORMULA:

C<sub>8</sub>H<sub>8</sub>O<sub>3</sub>

MOLECULAR WEIGHT:

MW = 152.15 g/mol

### Specifications:

CHARACTERISTICS	LIMITS	METHODS
Appearance and color of solid	White to off-white crystalline powder	Visual
Identity	Conforms to standard	Guaranteed Conformity
Odor / Flavor	Typical vanilla note	Compared to reference
Assay (on dried basis)	99.95 % min	HPLC
Color (solution in ethanol)	35 Hazen max	Colorimetry
Melting point	81.0 – 83.0°C	Capillary
Sulfated ashes	0.05 % max	Calcination / Mineralisation
Loss on drying (moisture)	0.06 % max	Gravimetry
Heavy metals (as lead)	10 ppm max	Limit Test or ICP
Arsenic (as As)	0.3 ppm max	AAS / ICP
Benzene	Proven absence	-
	Proven absence	-



## Applications:

Rhovani<sup>®</sup> MB can be used in flavor formulations, but also in:

- **Chocolate:** plain (dark) & milk chocolate, chocolate bars, chips, coatings, powders, spreads
- **Confectionery:** soft center sweets, candies, caramels, nougat, chewing gums, all other sweets
- **Baking:** cakes, cookies, pastries, waffles, muffins, breakfast cereals, baking mixes, vanillin flavored sugars
- **Beverages:** soft drinks, sodas, syrups, instant beverages, chocolate flavored drinks, drinking yoghurts
- **Dairy:** fresh products flavored and condensed milks, desserts, puddings, flans, yoghurts, sorbets, ice-cream.

The product is not intended for direct consumption, in accordance with the definition of Flavouring substance, as defined in the European Regulation EC 1334/2008.

Rhovani<sup>®</sup> MB can also be used in Fragrance applications.

## Physico-chemical properties:

Bulk density .....	Around 0,35 (indicative value)
Specific weight (20°C) .....	1056 kg/m <sup>3</sup>
Boiling point (13,3 hPa or 10 mmHg) .....	154°C
Boiling point (at 760 mmHg) .....	284-285°C
Flash Point (closed cup at 1022 hPa) .....	160°C

### Solubility

In ethanol (90% at 20°C) .....	Easily soluble: 620 g/l
In ethanol (70% at 20°C) .....	Easily soluble: 430 g/l
In ethanol (95% at 25°C) .....	Soluble (1 g in 2 ml)
In ethanol (70% at 25°C) .....	Soluble (1 g in 3 ml)

## Regulatory compliance, labeling:

**Labeling EU:** "Vanilla flavour" or "flavour". **Labeling US:** "Artificial vanilla flavor". **Labeling China:** "Food Additive". **Labeling Philippines:** "Nature-Identical flavor". Rhovani<sup>®</sup> MB complies with nature-identical definition of flavoring substance where still applicable.

Rhovani<sup>®</sup> MB complies with the Food safety and Hygiene standards of the European Regulations n° 178/2002 and n° 852/2004 and with the European Flavour Regulation EC n° 1334/2008 as modified,

Rhovani<sup>®</sup> MB is defined as a "flavouring substance" in Europe. It also complies with the EU Directive EC 2009/32 & its subsequent amendments relating to extraction solvents used in the manufacture of foodstuffs. We ensure no use of toluene and benzene at any stage of the process. Only solvent in Annex I part 1 is used: extraction solvent to be used in compliance with GMP for all uses, without any restricted limit.

Rhovani<sup>®</sup> MB complies with FDA 21 CFR 117, 21 - Part 182.60: GRAS FEMA n° 3107

Rhovani<sup>®</sup> MB meets the requirements of Food Chemicals Codex if tested, complies with Vanillin quality Standard GB 1886.16-2015 and with Standards for use of Food Additives GB 2760 in China.

Rhovani<sup>®</sup> MB meets the requirements of nature-identical definition of flavoring substance according to Administrative Order N°2014-0030 of the Republic of the Philippines.

**Regulatory inventories:** Vanillin is registered in the following chemical inventories: TSCA (USA); AIIIC (Australia); DSL (Canada); IECSC (China); EINECS (EU); KECI (Korea); ENCS (JAPAN), NZIoC (New Zealand); PICCS (Philippines); INSQ (Mexico); TCSI (Taiwan); TECI (Thailand).

Vanillin has been REACH EU and KKDIK registered. The registration numbers are: 01-2119516040-60-0000(REACH EU) and 01-0000476284-08-0000 (KKDIK). Please contact your usual commercial contact for additional REACH EU and KKDIK compliance information and in case of purchase from a legal entity outside the European Economic Area and/or Turkey.

## Transport:

Not regulated. For more details please consult our Safety Data Sheet.

## Shelf Life:

Rhovani<sup>®</sup> MB is guaranteed **5 years** from its manufacturing date, according to the following conditions:

- Containers should be tightly closed, kept in the packaging of origin, away from light, heat and humidity in premises suitable for food products.
- avoid contamination by any aromatic product as well as usage of containers made of iron, steel or aluminum (and its alloys).

The product may have a tendency to form aggregates (due to combination of temperature and humidity) which are easy to break when utilizing the product. This does not induce any Food Safety risk. Moreover due to possible temperature variations during transport, minor condensation of water droplets could be observed on the inner liner, which is an intrinsic property of the product and does not induce any Food Safety risk.

We guarantee minimum of 80% of remaining shelf life upon delivery at the customer premises.

## Packaging:

- 25 kg box with 1 polyethylene liner bag on a 600 kg pallet (4 levels, 6 boxes / level): Saint-Fons, France
- 25 kg box with 1 polyethylene liner bag on a 300 kg pallet (2 levels, 6 boxes / level): Baton Rouge, USA

