PARA-METHOXYBENZALDEHYDE

MODULE 1

SUBSTANCE INFORMATION SHEET

PARA-METHOXYBENZALDEHYDE

CAS number	123-11-5
Natural Origin	Occurs in coffee, tea, tomatoes.
Chemical Formula	C8H8O2
Synonymes	Para-anisaldehyde, anisic aldehyde, Aubepine, 4-methoxybenzaldehyde.
E number	N/A
FEMA GRAS number	2670

General Information

Council of Europe (CoE)

Number	Comment
103	N/A.

US Food & Drug Administration (FDA)

Number	Comment
21 CFR 172.515	Approved by U.S. FDA as Direct Food Additive.

Joint FAO/WHO Expert Committee on Food Additives (JECFA)

Number	ADI	Comment
878	ACCEPTABLE	No safety concern at current levels of intake when used as a flavouring agent

European Food Safety Authority (EFSA)

Number	Comment
05.015	Benzyl alcohols/aldehydes/acids/esters/acetals. Benzyl and benzoate esters included. May also contain aliphatic acyclic or alicyclic ester or acetal component.

Flavors & Extracts Manufacturers Association (FEMA)

Number	Comment
2670	Generally Recognized as Safe as a flavor ingredient - GRAS 3

Uses and Exposure

Para-benzaldehyde is used in the food industry as a flavor ingredient. In the cosmetic industry, it is mainly used in perfumery and in lesser amounts in other cosmetic products.

Estimated Intake from Food and Drink

Daily Intake
The daily intake for para-methoxybenzaldehyde was estimated at 0.44 mg/day in Europe and 0.58 mg/day in the USA[1].

Summary of the Toxicological Investigations on the Use of the Substance in Tobacco Products

Smoke Chemistry

Internal Studies	Level Tested ppm	Comment
Carmines for Philip Morris	<1 up to 84	The effect of the addition of para-methoxybenzaldehyde as mix at concentrations up to 84 ppm on the composition of the cigarette smoke was investigated.
Philipp Morris	100, 1,000 and 10,000	The effect of the addition of para-methoxybenzaldehyde at concentrations up to 10,000 ppm on the composition of the cigarette smoke was investigated.

Neutral Red Uptake Assay (NRU)

Internal Studies	Level Tested ppm	Comment
Carmines for Philip Morris	<1 up to 84	The effect of the addition of para-methoxybenzaldehyde as mix at concentrations up to 84 ppm on the cytotoxicity, as measured by the Neutral Red Uptake assay, was investigated.
Philipp Morris	100, 1,000 and 10,000	The effect of the addition of para-methoxybenzaldehyde at concentrations up to 10,000 ppm on the cytotoxicity, as measured by the Neutral Red Uptake assay, was investigated.

AMES Assay

Internal Studies	Level Tested ppm	Comment
Carmines for Philip Morris	<1 up to 84	The effect of the addition of para-methoxybenzaldehyde as mix at concentrations up to 84 ppm on the mutagenic response, as measured by the Salmonella reverse mutation assay, was

		investigated.
Philipp Morris	100, 1,000 and 10,000	The effect of the addition of para-methoxybenzaldehyde at concentrations up to 10,000 ppm on the mutagenic response, as measured by the Salmonella reverse mutation assay, was investigated.

Mouse Lymphoma Assay (MLA)

Internal Studies	Level Tested ppm	Comment
Philipp Morris	100, 1,000 and 10,000	The effect of the addition of para-methoxybenzaldehyde at concentrations up to 10,000 ppm on the mutagenic response, as measured by the Mouse Lymphoma Assay, was investigated.

In vivo Micronucleus

Internal Studies	Level Tested ppm	Comment
Philipp Morris	100, 1,000 and 10,000	The effect of the addition of para-methoxybenzaldehyde at concentrations up to 10,000 ppm on the clastogenic/aneugenic response was investigated using the in vivo Micronucleus Asssay.

Inhalation studies

Internal Studies	Level Tested ppm	Comment
Carmines for Philip Morris	<1 up to 84	The effect of the addition of para-methoxybenzaldehyde as mix at concentrations up to 84 ppm on the toxicity of cigarette smoke, as suggested in a 90-day inhalation study, was investigated.

References

1. Safety evaluation of certain food additives and contaminants. WHO Food Additives Series, No. 48, 2001.