

Hexenyl acetate (2-)

Botanical Source

Synonyms HEXEN-1-YL ACETATE (2-),HEX-2-ENYL ACETATE,HEXENYL ETHANOATE (2-)

IUPAC Name

CAS Reference 2497-18-9

E Number

Food Legislation

Council of Europe (CoE)

Number	Comment
643	Listed by the Council of Europe as acceptable for use in food at up to 0.5 ppm.

US Food and Drug Administration

Number	Comment
172.515	Approved by the US FDA. FDA 21 CFR 172.515

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

Number	ADI	Comment
1355	No Safety concern @ intake	No safety concern at current levels of intake when used as a flavouring agent

FEMA

FEMA No.	Comment
2564	

Natural Occurrence and Use in Food

Used in baked goods, candy , pudding, beverages.

Estimated Intake From Food and Drink

Daily Intake mg/kg/day	FEMA Possible Average Daily Intake mg
0.5	1.483

Tobacco Legislation

Tobacco Ingredients

Country	Cigarettes	RYO	Cigars	Pipe
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Hexenyl acetate (2-)

Afghanistan

Algeria

Argentina

Australia

Brazil

Burundi

Canada

Comoros

Djibouti

EEC

Egypt

Eritrea

EU TPD2

Fiji

France	Y	Y	Y	Y
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GCC (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE)

Germany	Y	Y	Y	Y
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Hong Kong

Hungary	Y	Y	Y	Y
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Iceland

Iran

Iraq

Jordan

Kazakhstan

Lebanon

Libya

Macedonia

Madagascar

Malaysia

Maldives

Mexico

Moldova

Montenegro

New Zealand

Hexenyl acetate (2-)

Nigeria

Norway

Pakistan

Palestine

Papua New Guinea

Rwanda

Samoa

Serbia

Solomon Island

Somalia

Somaliland

South Sudan

Sri Lanka

Sweden

Switzerland	Y	Y	Y	Y
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Syria

Tunisia

Turkey

UK	0.15	0.15	0.15	0.5
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United Arab Emirates

Vietnam

Y=Permitted for use in tobacco products. If use is limited, the maximum permitted level is given.

Tobacco Product related Chemical and Biological Studies

Smoke Chemistry

Published Source	Level Tested %	Comment
BAT	0.00100	At maximum application level this ingredient is not associated with significant increases in levels of Hoffmann analytes in smoke.

Ames Activity

Published Source	Level Tested %	Comment
BAT	0.00100	Within the sensitivity and specificity of the system the Ames activity of the cigarette smoke condensate was not increased by the addition of the ingredient.

Micronucleus

Hexenyl acetate (2-)

Published Source	Level Tested %	Comment
BAT	0.00100	Within the sensitivity of the in vitro micronucleus assay the activity of the cigarette smoke condensate was not increased by the addition of the ingredient.

Neutral red

Published Source	Level Tested %	Comment
BAT	0.00100	Within the sensitivity of the test system the in vitro cytotoxicity of the cigarette smoke condensate was not increased by the addition of the ingredient.

Inhalation

Published Source	Level Tested %	Comment
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Mouse Skin Painting

Published Source	Level Tested %	Comment
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Toxicological Data on the Unburnt Ingredient

[+ve positive; -ve, negative; ? equivocal

With, with metabolic activation; without, without metabolic activation]

In vivo Studies

Species	Test Conditions	End Point	Results	Reference
Rabbit	2-Hexenyl acetate was applied to intact or abraded skin under an occluded patch for 24 hours. Neat.	Skin irritation	Moderate irritation	Opdyke, 1979; RTECS, 1997
Rat	Oral - Not specified	Mortality	LD ₅₀ >5000 mg/kg bw.	Opdyke, 1979; RTECS, 1997
Rabbit	Dermal - Not specified	Mortality	LD ₅₀ >5000 mg/kg bw.	Opdyke, 1979; RTECS, 1997

References

Opdyke, D.L.J., 1979

Monographs on Fragrance Raw Materials: 2-Hexenyl acetate. *Food and Cosmetics Toxicology*, 17, 793.

RTECS, 1997

Registry of Toxic Effects of Chemical Substances. Record for 2-hexen-1-ol, acetate, (E)- (CAS RN 2497-18-9). Last updated January 1997.