

Damascone (beta-)

Botanical Source

Synonyms DAMASIONE;
TRIMETHYL-1-CYCLOHEXEN-1-YL)-2-BUTEN-1-ONE (1-(2,6,6-);
ROSE DIHYDROKETONE;
TRIMETHYL-1-CYCLOHEXEN-1-YL)-2-BUTEN-1-ONE ((E)-1-(2,6,6-);
DIHYDROFLORIFFONE B;
TRIMETHYL-1-CYCLOHEXEN-1-YL)-2-BUTEN-1-ONE ((Z)-1-(2,6,6-);
4-(2,6,6-TRIMETHYLCYCLOHEX-1-ENYL)BUT-2-EN-4-ONE

IUPAC Name

CAS Reference 35044-68-9;
23726-92-3;
23726-91-2;

E Number

Food Legislation

Council of Europe (CoE)	
Number	Comment
2340	Listed by the Council of Europe as acceptable for use in food at up to 1 ppm.

US Food and Drug Administration	
Number	Comment
-	-

Joint FAO/WHO Expert Committee on Food Additives (JECFA)		
Number	ADI	Comment
384	ADI ACCEPTABLE	No safety concern at current levels of intake when used as a flavouring agent; secondary components do not raise a safety concern.

FEMA	
FEMA No.	Comment
3243	Generally recognised as safe as a flavour ingredient:GRAS List Number 3

Natural Occurrence and Use in Food	
Found in rose, rum, brandy, tea: used in baked goods, candy, chewing gum.	

Estimated Intake from Food and Drink	
Daily Intake mg/kg/day	FEMA Possible Average Daily Intake mg
-	-

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Tobacco Product Related Chemical and Biological Studies for Ingredients Added in a Mixture

Smoke Chemistry		
Published Source	Level Tested %	Comment
BAT	0.00180	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	0.00180	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		
Published Source	Level Tested %	Comment
BAT	0.00180	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	0.00180	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
Lorillard	0.04040	The results indicate that the addition of the ingredient had no discernible effect on the inhalation toxicity of mainstream smoke.
BAT	0.00180	The results indicate that the addition of the ingredient had no discernible effect on the inhalation toxicity of mainstream smoke.

Mouse Skin Painting		
Research Org	Level Tested %	Comment
Lorillard	0.04040	None of the changes appeared to be substantial enough to conclude that the tumour promotion capacity of the condensate was discernibly different between condensate produced from cigarettes with the ingredient in comparison with condensate from cigarettes without the ingredient.

References
Baker RR, Pereira da Silva JR, Smith G. The effect of tobacco ingredients on smoke chemistry. Part I: Flavourings and additives. Food Chem Toxicol. 2004; 42 Suppl:S3-37.
Baker RR, Pereira da Silva JR, Smith G. The effect of tobacco ingredients on smoke chemistry. Part II: casing ingredients. Food Chem Toxicol. 2004; 42 Suppl:S39-52.
Baker RR, Massey ED, Smith G. An overview of the effects of tobacco ingredients on smoke chemistry and toxicity. Food Chem Toxicol. 2004; 42 Suppl:S53-83.
Carmines EL. Evaluation of the potential effects of ingredients added to cigarettes. Part 1: cigarette design, testing approach, and review of results. Food Chem Toxicol. 2002; 40(1): 77-91.
Rustemeier K, Stabbert R, Haussmann HJ, Roemer E, Carmines EL. Evaluation of the potential effects of ingredients added to cigarettes. Part 2: chemical composition of mainstream smoke. Food Chem Toxicol. 2002; 40(1): 93-104.
Roemer E, Tewes FJ, Meisgen TJ, Veltel DJ, Carmines EL. Evaluation of the potential effects of ingredients added to cigarettes. Part 3: in vitro genotoxicity and cytotoxicity. Food Chem Toxicol. 2002; 40(1): 105-111.
Vanscheeuwijck PM, Teredesai A, Terpstra PM, Verbeeck J, Kuhl P, Gerstenberg B, Gebel S, Carmines EL. Evaluation of the potential effects of ingredients added to cigarettes. Part 4: subchronic inhalation toxicity. Food Chem Toxicol. 2002; 40(1): 113-131.
Gaworski CL, Dozier MM, Heck JD, Gerhart JM, Rajendran N, David RM. Brennecke LH, Morrissey R. Toxicologic evaluation of flavor ingredients added to cigarette tobacco: 13 week inhalation exposures in rats. Inhal. Toxicol. 1998; 10:357-381
Gaworski CL, Heck JD, Bennett MB, Wenk ML. Toxicologic evaluation of flavor ingredients added to cigarette tobacco: skin painting bioassay of cigarette smoke condensate in SENCAR mice. Toxicology. 1999; 139(1-2):1-17.

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Tobacco Product Related Chemical and Biological Studies for Ingredients Tested Singly

References
Baker RR, Bishop LJ. The pyrolysis of tobacco ingredients. J. Anal. Appl. Pyrolysis 2004, 71, 223-311.

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Toxicological Data on the Unburnt Ingredient

Rat oral LD₅₀ 2920 mg/kg. Food and Cosmetics Toxicology (1975), **13**, 487.

Ethyl-2-methyl butyrate

BAT

test level 0.0012%
smoke chem
Ames
NR
micronucleus
inhalation

PM

test level 0.0009%
smoke chem
Ames
NR
inhalation

However, have not checked for other refs at this time

Pyrolysis tobacco ingredient ref

NO TOX DATA IDENTIFIED