

“White listed” additives proposed or regulated for permissive use in e-cigarette liquids.

- Canada (CA):¹ 83 ingredients (CA(M) are additives that would be allowed in menthol-mint flavours);
- Netherlands (NL):² 16 ingredients
- China (CN):³ 101 flavouring ingredients

COUNTRY		CHEMICAL PERMITTED	CAS
NL	CA(M)	(-)CARYOPHYLLENE OXIDE	1139-30-6
NL		(3AR)-(+)-SCLAREOLIDE	564-20-5
NL		(E)-BETA-DAMASCENONE	23726-93-4
NL		(E)-BETA-DAMASCONE	23726-91-2
	CA	CN 2,3,5-TRIMETHYLPYRAZINE/TRIMETHYLPYRAZINE/	14667-55-1
	CA(M)	CN 2,3-DIMETHYL PYRAZINE	5910-89-4
	CA	2,4-XYLENOL	105-67-9
	CA	2,5-DIETHYLTETRAHYDROFURAN	41239-48-9
		CN 2,5-DIMETHYL PYRAZINE	123-32-0
		CN 2,5-DIMETHYL-4-HYDROXY-3(2H)-FURANONE	3658-77-3
NL	CA	CN 2,6,6-TRIMETHYLCYCLOHEX-2-ENE-1,4-DIONE/KETOISOPHORONE	1125-21-9
NL		2,6-DIMETHOXYPHENOL	1991-10-01
	CA	CN 2-ACETYLFURAN	1192-62-7
	CA	CN 2-ACETYLPYRAZINE	22047-25-2
	CA	CN 2-ACETYLPYRIDINE	1122-62-9
		CN 2-ACETYLPYRROLE	1072-83-9
		CN 2-ACETYLTHIAZOLE	24295-03-2
	CA	2-ETHYLFURAN	3208-16-0
NL	CA	2-HYDROXYISOPHORONE	4883-60-7
	CA(M)	2-METHYL FURAN	534-22-5
		CN 2-METHYLBUTYRIC ACID	116-53-0
	CA	3,5-DIMETHOXY-4-HYDROXYTOLUENE	76638-05-07
	CA	3,5-XYLENOL	108-68-9
NL		3-ACETYLPYRIDINE	350-03-8
NL		3-ETHYLPYRIDINE	536-78-7
	CA	3-METHYL-2-CYCLOPENTENONE	2758-18-1
	CA(M)	3-METHYLCYCLOHEXANONE	591-24-2
	CA(M)	3-OCTANOL	589-98-0
		CN 4-(4-HYDROXYPHENYL)-2-BUTANONE(RASPBERRY KETONE)	5471-51-2
		CN 4,5-DIMETHYL-3-HYDROXY-2,5-DIHYDROFURAN-2-ONE	28664-35-9
	CA	4-ETHYLANISOLE	1515-95-3
		CN 4-METHOXYBENZALDEHYDE	123-11-5

COUNTRY		CHEMICAL PERMITTED	CAS
	CA	4-METHYLENEISOPHORONE	20548-00-9
		CN 4-OXOPENTANOIC ACID	123-76-2
NL		5-(HYDROXYMETHYL)-2-FURFURAL	67-47-0
	CA	5-METHYLFURFURAL	620-02-0
		CN ACETIC ACID	64-19-7
		CN ALLYLHEXANOATE	123-68-2
NL		ALPHA-ANGELICA LACTONE	591-12-8
	CA(M)	ALPHA-HUMULENE	6753-98-6
	CA(M)	ALPHA-PINENE	80-56-8
	CA(M)	ALPHA-TERPINENE	99-86-5
	CA	AMBROXAN	6790-58-5, 100679-85-4, 3738-00-9
NL		AMBROXIDE	3738-00-9
	CA	ANETHOLE	104-46-1, 4180-23-8
		CN ANISE STAR OIL(<i>ILLICIAM VERUM</i> HOOK, F.)	8007-70-3
		CN ANISYL ACETATE	104-21-2
		CN BALSAM PERU OIL(<i>MYROXYLON PEREIRAE</i> KLOTZSCH)	8007-00-9
		CN BENZOIC ACID	65-85-0
		CN BENZYL ACETATE	140-11-4
		CN BENZYL ALCOHOL	100-51-6
	CA(M)	BETA-BOURBONENE	5208-59-3
	CA(M)	BETA-CARYOPHYLLENE	87-44-5
NL	CA	BETA-DAMASCONE	35044-68-9 (**)
	CA(M)	BETA-PINENE	127-91-3
		CN BUTYL ACETATE	123-86-4
		CN BUTYL BUTYRATE	109-21-7
	CA	BUTYRIC ACID	107-92-6
		CN CALCIUM CARBONATE	471-34-1
	CA(M)	CARVEOL	99-48-9
	CA(M)	CARVONE	6485-40-1, 99-49-0
	CA(M)	CARVYL ACETATE	97-42-7
	CA	CEDROL	77-53-2
		CN CELLULOSE	65996-61-4
		CN CIS-3-HEXEN-1-OL	928-96-1
		CN CIS-3-HEXEN-1-YL ACETATE	3681-71-8
	CA(M)	CIS-CARVONE OXIDE	18383-49-8
		CN CITRAL	5392-40-5
		CN CITRIC ACID	77-92-9
		CN CITRONELLA OIL(<i>CYMBOPOGON NARDUS</i> RENDLE)	8000-29-1
		CN CLOVE BUD OIL(<i>EUGENIA</i> SPP.)	84961-50-2
		CN CLOVE LEAF OIL(<i>EUGENIA</i> SPP)	8015-97-2
		CN COCOA EXTRACT(<i>THEOBROMACACA</i> LINN.)	84649-99-0
		CN COFFEE EXTRACT(<i>COFFEE</i> SPP.)	93348-12-0
		CN CORIANDER SEED OIL(<i>CORIANDRUM SATIVUM</i> L.)	8008-52-4

COUNTRY	CHEMICAL PERMITTED	CAS
	CA CORYLONE	80-71-7
	CA CUMINALDEHYDE	122-03-2
	CN D,L-TARTARIC ACID	133-37-9
NL	CA CN DAMASCENONE/BETA-DAMASCENONE	23696-85-7
	CA(M) DELTA-CADINENE	483-76-1
	CN DIHYDROACTINIDIOLIDE	17092-92-1
	CA(M) DIHYDROCARVEOL	619-01-2
	CA(M) DIHYDROCARVYL ACETATE	20777-49-5, 57287-13-5
	CN D-LIMONENE	5989-27-5
	CA ESTRAGOLE	140-67-0
	CN ETHANOL	64-17-5
	CN ETHYL ACETATE	141-78-6
	CN ETHYL BUTYRATE	105-54-4
	CN ETHYL CINNAMATE	103-36-6
	CA ETHYL CYCLOPENTENOLONE	21835-01-8
	CN ETHYL ISOVALERATE	108-64-5
	CN ETHYL MALTOL	4940-11-08
	CN ETHYL METHYL PHENYLGLYCIDATE	77-83-8
	CN ETHYL NONANOATE	123-29-5
	CN ETHYL PHENYLACETATE	101-97-3
	CN ETHYL PROPIONATE	105-37-3
	CN ETHYL VANILLIN	121-32-4
	CA ETHYL VINYL KETONE	1629-58-9
	CA(M) EUCALYPTOL	470-82-6
	CN EUGENOL	97-53-0
	CN FENUGREEK EXTRACT(<i>TRIGONELLA FOENUM GRAECUM</i> L.)	84625-40-1
	CN FURFURAL	1998-01-01
	CN FURFURYL ACETATE	623-17-6
	CA CN FURFURYL ALCOHOL	98-00-0
	CA(M) GAMMA-TERPINENE	99-85-4
	CA CN GERANIOL	106-24-1
	CN GERANYL ACETATE	105-87-3
	CN GUAR GUM	9000-30-0
	CN HEPTYL ACETATE	112-06-1
	CA(M) ISOAMYL 2-METHYLBUTYRATE	27625-35-0
	CN ISOAMYL ACETATE	123-92-2
	CN ISOAMYL ALCOHOL	123-51-3
	CN ISOAMYL BUTYRATE	106-27-4
	CN ISOAMYL ISOVALERATE	659-70-1
	CA(M) ISOAMYL PHENYLACETATE	102-19-2
	CN ISOBUTYL ACETATE	110-19-0
	CA(M) ISOMENTHONE	1196-31-2, 491-07-6
	CA ISOPHORONE	78-59-1

COUNTRY		CHEMICAL PERMITTED	CAS
NL	CA(M)	ISOPULEGOLE	89-79-2, 50373-36-9
		ISOVALERIC ACID	503-74-2
		CN LACTIC ACID	50-21-5
		CN LEMON OIL(<i>CITRUS LIMON</i> (L.) BURM.F.)	8008-56-8
		CN LINALOOL	78-70-6
		CN MALICACID	6915-15-7
		CN MALTOL	118-71-8
		CA(M) MENTHOFURAN	494-90-6
			1490-04-6, 89-78-1, 15356-70-4, 491-01-0, 2216-51-5, 490-99-3, 149-64-3
	CA(M)	CN MENTHOL / DL MENTHOL	10458-14-7, 89-80-5, 14073-97-3, 3391-87-5
	CA(M)		16409-45-3, 2230-87-7, 89-48-5, 2623-23-6
	CA(M)	CN MENTHYL ACETATE	93-58-3
	CA	CN METHYL BENZOATE	103-26-4
		CN METHYL CINNAMATE	24851-98-7
		CN METHYL DIHYDROJASMONATE	93-60-7
	CA		101-41-7
	CA		119-36-8
	CA(M)		765-70-8
		CN METHYLCYCLOPENTENOLONE	51115-67-4
		CN N,2,3-TRIMETHYL-2-ISOPROPYLBUTAMIDE(WS-23)	21290-09-5, 89-79-2
	CA(M)		165450-17-9
		CN NEOTAME	39711-79-0
	CA(M)	CN N-ETHYL-P-MENTHAN-3-CARBOXAMIDE(WS-3)	124-19-6
	CA(M)		112-05-0
	CA		111-87-5
	CA(M)		99-87-6
	CA(M)		8014-09-03
	CN PATCHOULI OIL(<i>POGOSTEMON CABLIN</i>)	8006-90-4	
	CN PEPPERMINT OIL(<i>MENTHA PIPERITA</i> L.)	536-59-4	
CA(M)		103-45-7	
	CN PHENETHYL ACETATE	1960-12-08	
CA(M)	CN PHENETHYL ALCOHOL	140-26-1	
CA		89-81-6	
CA(M)		21129-27-1	
CA(M)		24634-61-5	
	CN POTASSIUM SORBATE	94-86-0	
CA		1979-09-04	
	CN PROPENYLGUAETHOL	89-82-7, 15932-80-6	
CA(M)		110-86-1	
CA		8000-25-7	
	CN PULEGONE	3387-41-5	
CA(M)			
CA			
	CN PYRIDINE		
	CN ROSEMARY OIL(<i>ROSEMARINUS OFFICINALIS</i> L.)		
CA(M)			
	CN SABINENE		

COUNTRY	CHEMICAL PERMITTED	CAS
CA	SAFRANAL	116-26-7
	CN SODIUM BENZOATE	532-32-1
	CN TEA POLYPHENOL	84650-60-2
CA	TETRAMETHYLPYRAZINE	1124-11-4
CA(M)	THYMOL	89-83-8
CA(M)	TRANS-3-HEXENOL	928-97-2
	CN VANILLA BEAN TINCTURE(VANILLA SPP.)	84650-63-5
	CN VANILLIN	121-33-5
CA	VERATRALDEHYDE	120-14-9
	CN A-ANGELICA LACTONE	591-12-8
	CN A-IONONE	127-41-3
NL	CA CN B-DAMASCONE	23726-92-3 **
	CN B-IONONE	79-77-6
	CN Γ-DODECALACTONE	2305-05-07
	CN Γ-HEPTALACTONE	105-21-5
	CN Γ-HEXALACTONE	695-06-7
	CN Γ-OCTALACTONE	104-50-7
	CA CN Γ-VALEROLACTONE/GAMMA-VALEROLACTONE	108-29-2

**** In Canada Beta Damascone 23726-92-3 and 35044-68-9 are combined as a single ingredient for the whitelist; in the Netherlands, they are separately identified.**

Compiled by Physicians for a Smoke-Free Canada. November 2022

Sources

- 1 Health Canada. Canada Gazette, Part I, Volume 155, Number 25: Order Amending Schedules 2 and 3 to the Tobacco and Vaping Products Act (Flavours). June 19, 2021. <https://gazette.gc.ca/rp-pr/p1/2021/2021-06-19/html/reg2-eng.html>
- 2 Eu. Notification. Amendment of the Tobacco and Smoking Products Order for regulation of e-cigarette flavours. July 2022. <https://ec.europa.eu/growth/tools-databases/tris/en/search/?trisaction=search.detail&year=2022&num=508>
See also: RIVM. Smaakbepalende additieven in vloeistoffen voor e-sigaretten: een voorstel voor een limitatieve lijst
October 2021. <https://www.rivm.nl/publicaties/smaakbepalende-additieven-in-vloeistoffen-voor-e-sigaretten-voorstel-voor-limitatieve>
- 3 State Administration for Market Regulation. GB 41700-2022. Electronic Cigarettes(not yet published). Available in Draft form at: <https://www.samr.gov.cn/bzjss/zqyj/202203/P020220311547163224057.pdf>