

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

CA = Canada; CA(M) = Canada’s ingredients for menthol<sup>1</sup> / CN = China<sup>2</sup> / NL = Netherlands<sup>3</sup>

Country	CHEMICAL	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
	2,3,5-	
NL CA CN	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
	2,6,6-TRIMETHYLCYCLOHEX-2-ENE-1,4-	
NL CA CN	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
NL	2-ETHYL-3-METHYLPYRAZINE	15707-23-0
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
	4-(4-HYDROXYPHENYL)-2-BUTANONE(RASPBERRY	
CN	KETONE)	5471-51-2
	4,5-DIMETHYL-3-HYDROXY-2,5-DIHYDROFURAN-	
CN	2-ONE	28664-35-9
CA	4-ETHYLANISOLE	1515-95-3
CN	4-METHOXYBENZALDEHYDE	123-11-5
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

Country	CHEMICAL	CAS
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
NL CA(M)	BETA-CARYOPHYLLENE	87-44-5
NL CA(M)	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 CN	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
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

Country	CHEMICAL	CAS
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
NL CA	ISOPHORONE	78-59-1
CA(M)	ISOPULEGOLE	89-79-2, 50373-36-9
NL	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
CA(M) CN	MENTHOL	1490-04-6, 89-78-1, 15356-70-4, 491-01-0, 2216-51-5, 490-99-3, 149-64-3
CA(M)	MENTHONE	10458-14-7, 89-80-5, 14073-97-3, 3391-87-5
CA(M) CN	MENTHYL ACETATE	16409-45-3, 2230-87-7, 89-48-5, 2623-23-6
CA CN	METHYL BENZOATE	93-58-3
CN	METHYL CINNAMATE	103-26-4
CN	METHYL DIHYDROJASMONATE	24851-98-7
CA	METHYL NICOTINATE	93-60-7
CA	METHYL PHENYLACETATE	101-41-7
CA(M)	METHYL SALICYLATE OR WINTERGREEN OIL	119-36-8
CN	METHYLCYCLOPENTENOLONE	765-70-8
CN	N,2,3-TRIMETHYL-2-ISOPROPYLBUTAMIDE(WS-23)	51115-67-4
CA(M)	NEOISOPULEGOL	21290-09-5, 89-79-2
CN	NEOTAME	165450-17-9
CA(M) CN	N-ETHYL-P-MENTHAN-3-CARBOXAMIDE(WS-3)	39711-79-0
CA(M)	NONANAL	124-19-6
CA	NONANOIC ACID	112-05-0
CA(M)	OCTANOL	111-87-5
CA(M)	PARA-CYMENE	99-87-6
CN	PATCHOULI OIL( <i>POGOSTEMON CABLIN</i> )	8014-09-03
NL	P-CRESOL	106-44-5
CN	PEPPERMINT OIL( <i>MENTHA PIPERITA</i> L.)	8006-90-4
CA(M)	PERILLA ALCOHOL	536-59-4
CN	PHENETHYL ACETATE	103-45-7
CA(M) CN	PHENETHYL ALCOHOL	1960-12-08
CA	PHENETHYL ISOVALERATE	140-26-1
CA(M)	PIPERITONE	89-81-6

Country	CHEMICAL	CAS
CA(M)	P-MENTHAN-1-OL	21129-27-1
CN	POTASSIUM SORBATE	24634-61-5
CA	PROPENYLGLUAETHOL	94-86-0
CN	PROPIONIC ACID	1979-09-04
CA(M)	PULEGONE	89-82-7, 15932-80-6
NL	PYRIDINE	110-86-1
CA	PYRIDINE	110-86-1
CN	ROSEMARY OIL(ROSEMARINUS OFFICINALIS L.)	8000-25-7
CA(M)	SABINENE	3387-41-5
CA	SAFRANAL	116-26-7
CN	SODIUM BENZOATE	532-32-1
NL	TABANONE	13215-88-8
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	$\alpha$ E-ANGELICA LACTONE	591-12-8
CN	$\alpha$ -IONONE	127-41-3
NL CA CN	$\beta$ -DAMASCONE	23726-92-3 (also 35044-68-9)
CN	$\beta$ -IONONE	79-77-6
CN	$\gamma$ -DODECALACTONE	2305-05-07
CN	$\gamma$ -HEPTALACTONE	105-21-5
CN	$\gamma$ -HEXALACTONE	695-06-7
CN	$\gamma$ -OCTALACTONE	104-50-7
CA CN	$\gamma$ -VALEROLACTONE/GAMMA-VALEROLACTONE	108-29-2

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#### 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 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>
- 3 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>