

Appendix II. R22 Inventory

I. List with 40 predefined chemicals included in the definition of the question R22:

“Is the substance a *common component of food (C)* or *structurally closely related (K)* to a *common component of food (C)*?”

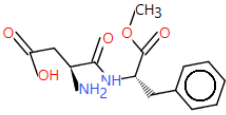
Definitions for use with the decision tree:

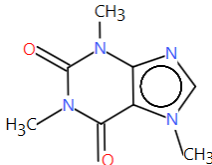
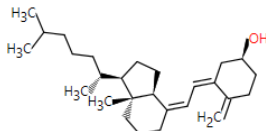
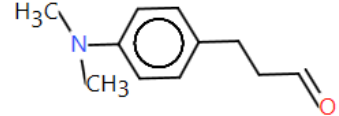
(C) Common component of food means: In something as diverse, changing and occasionally uncertain as natural occurrence, it is only possible to define a guideline, not a firm rule. For this decision tree, the term common component of food denotes a substance that has been reported in the recognized literature as occurring in significant quantity (approximately 50 ppm or more) in at least one major food, or in trace quantities at the ppm level or less in several foods, including minor or less frequently consumed foods. The latter include spices, herbs and ethnic specialties. This definition excludes natural or man-made contaminants, and hormones.

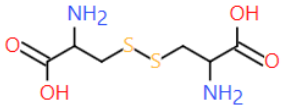
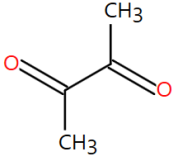
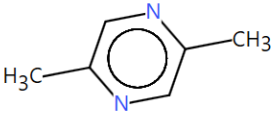
(K) Structurally closely related means:

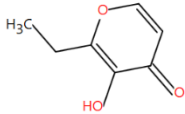
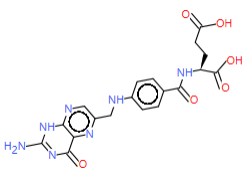
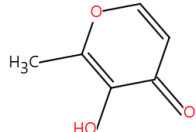
- a member, not more than two carbon atoms removed, in a homologous series, except ethoxy and higher homologous of methoxy compound;
- a primary alcohol and its aldehyde, or either of these and the corresponding carboxylic acid;
- a secondary alcohol and the corresponding ketone;
- structural isomers unlikely to involve steric hindrance of a functional group.
- compounds with the same functional groups, the remainder of the compound being known to be easily and harmlessly metabolized;
- non-sterically hindered esters, thioesters, acetals, ketals and their components.

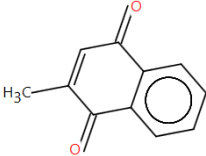
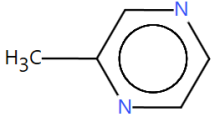
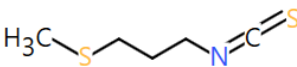
Table 1. Borrowed from Toxtree 40 Common food components (C) that are accepted by EFSA

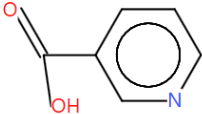
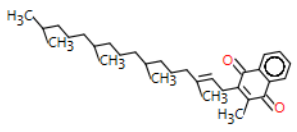
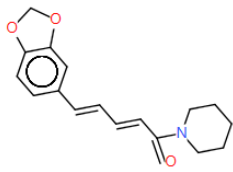
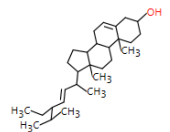
#	CAS #	EC #	Identification Numbers for Flavorings and Food Additives	Chemical name	SMILES	Structure	Reference source
1	22839-47-0	2452613	FEMA number: FEMA GRAS number:	Aspartame	<chem>COC(=O)C(Cc1ccccc1)NC(=O)C(N)CC(O)=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ASPARTAME

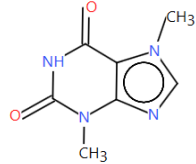
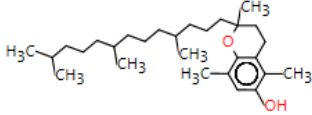
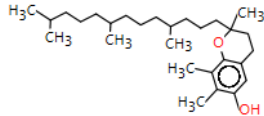
			JECFA number: FL No: CoE No:				
2	58-08-2	200362 1	FEMA number: 2224 FEMA GRAS number: 3 JECFA number: FL No: 16.016 CoE No: 11741	Caffeine	<chem>CN1C(=O)N(C)c2ncn(C)c2C1=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=CAFFEINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB002100 [2,137]
3	1406-16-2	215797 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Vitamin D	<chem>CC(C)CCCC(C)C1CCC2C(/CCCC12C)=C/C=C1/CC(O)CCC1=C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=VITAMIND3 https://foodb.ca/compounds/FDB021586 [3,152]
4	377084-04-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-[4-(Dimethylamino)phenyl]propanal	<chem>CN(C)c1ccc(CCC=O)cc1</chem>		UNDER DEVELOPMENT

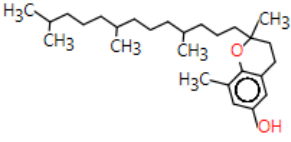
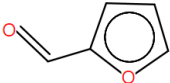
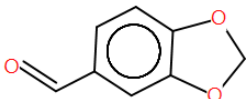
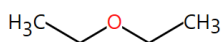
5	923-32-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cystine; DL-Cystine	<chem>NC(CSSCC(N)C(O)=O)C(O)=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=CYSTINEDL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [4]
6	431-03-8	207069 8	FEMA number: 2370 FEMA GRAS number: 3 JECFA number: 408 FL No: 07.052 CoE No: 752	2,3- Butanedion; Diacyl	<chem>CC(=O)C(C)=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIACETYL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [5,138]
7	123-32-0	204618 3	FEMA number: 3272 FEMA GRAS number: 5 JECFA number: 766 FL No: 14.020 CoE No: 2210	2,5- Dimethyl- pyrazine	<chem>Cc1cnc(C)cn1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLPYRAZINE25 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/DB013954 [6,139]

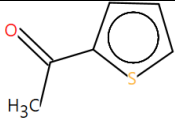
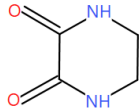
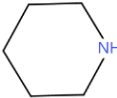
8	4940-11-8	2255825	FEMA number: 3487 FEMA GRAS number: 10 JECFA number: 1481 FL No: 07.047 CoE No: 692	2-Ethyl-3-hydroxy-4-pyrone	CCC1OC=CC(=O)C=1O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLMALTOL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [7,140]
9	59-30-3	2004190	FEMA number: 2004190 FEMA GRAS number: 3 JECFA number: 1480 FL No: 07.014 CoE No: 148	(2S)-2-[[4-[(2-Amino-4-oxo-1,4-dihydropteridin-6-yl)methyl]amino}phenyl]formamido]pentanedioic acid Folic acid	NC1Nc2ncc(CNc3ccc(cc3)C(=O)NC(CCC(O)=O)C(O)=O)nc2C(=O)N=1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FOLICACID https://foodb.ca/compounds/FDB014504 [8,141]
10	118-71-8	2042718	FEMA number: 2656 FEMA GRAS number: 3 JECFA number: 1480 FL No: 07.014 CoE No: 148	2-Ethyl-3-hydroxy-4-pyrone; Maltol	CC1OC=CC(=O)C=1O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=MALTOL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB002712 [9,142]

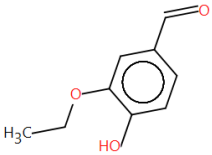
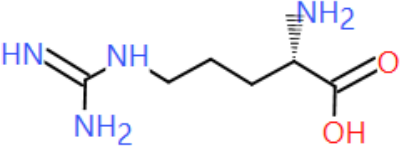
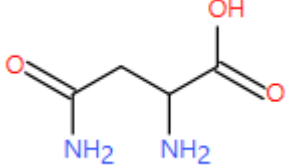
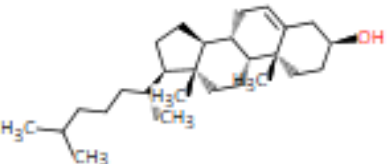
11	58-27-5	200372 6	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-1,4- naphthalenedi one; Menadione	<chem>CC1=CC(=O)c2ccccc2C1=O</chem>		https://foodb.ca/compounds/FDB000953 [10,143]
12	109-08-0	203645 8	FEMA number: 3309 FEMA GRAS number: 5, 25 JECFA number: 761 FL No: 14.027 CoE No: 2270	2-Methyl- pyrazine	<chem>Cc1cncn1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB011112 [11,144]
13	505-79-3	208020 3	FEMA number: 3312 FEMA GRAS number: 5, 25 JECFA number: 1564 FL No: 12.030 CoE No: 2326	1- Isothiocyanat o-3- (methylsulfan yl)propane	<chem>CSCCCN=C=S</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIOPROPYLISOTHIOCYANATE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB012744 [12,145]

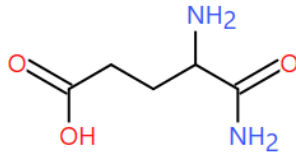
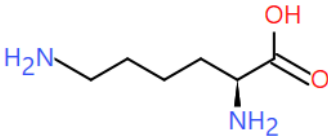
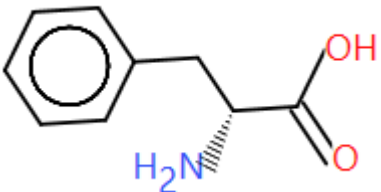
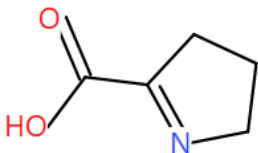
14	59-67-6	2004410	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Carboxylpyridine; Nicotinic acid; Niacin;	<chem>OC(=O)c1cccn1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=NIACIN [13,146]
15	81818-54-4	2798339	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-3-(3,7,11,15-tetramethylhexadec-2-en-1-yl)naphthalene-1,4-dione	<chem>CC(C)CCCC(C)CCCC(C)CCCC(C)=CCC1=C(C)C(=O)c2ccccc2C1=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=VITAMINK https://foodb.ca/compounds/FDB012357 [14]
16	94-62-2	2023480	FEMA number: 2909 FEMA GRAS number: 3 JECFA number: 1600 FL No: 14.003 CoE No: 492	Piperine; Bioperine; 1-Piperoylpiperidine	<chem>O=C(C=CC=Cc1ccc2OC(=O)c2c1)N1CCCCC1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PIPERINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB000449 [15,147, 234]
17	83-48-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3beta-Stigmasta-5,22-dien-3-ol	<chem>CCC(C=CC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C3CCC12C)C(C)C</chem>		https://foodb.ca/compounds/FDB001936 [16,148]

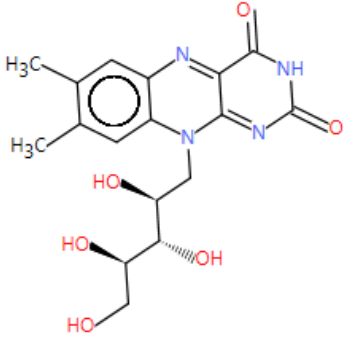
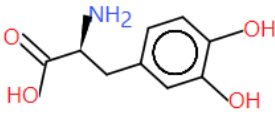
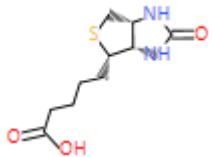
18	83-67-0	201494 2	FEMA number: 3591 FEMA GRAS number: 11 JECFA number: FL No: 16.032 CoE No:	Theobromine ; 1H-Purine- 2,6- dione,_3,7- dihydro-3,7- dimethyl-;	<chem>CN1C(=O)NC(=O)c2c1n cn2C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?et=FoodSubstances&id=THEOBROMINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB000455 [17,149]
19	1406-66- 2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	dl- Tocopherol mixture; dl- Tocopherol mixture, natural (alpha, beta, gamma and delta) mixed tocopherols Tocopherols	<chem>CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2c(C)c(O)cc(C)c2O1</chem>		https://foodb.ca/compounds/FDB002431 [18,150]
20	7616-22- 0	231523 4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	γ- Tocopherol; 2,7,8- Trimethyl-2- (4,8,12- trimethyltridecyl)-3,4- dihydro-2H- chromen-6- ol;	<chem>CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2cc(O)c(C)c(C)c2O1</chem>		https://foodb.ca/compounds/FDB002431 [19]

21	119-13-1	204299 0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	d-Tocopherol; 2,8-Dimethyl-2-(4,8,12-trimethyltridecyl)-3,4-dihydro-2H-chromen-6-ol;	<chem>CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2cc(O)cc(C)c2O1</chem>		[20,151]
22	98-01-1	202627 7	FEMA number: 2489 FEMA GRAS number: 3 JECFA number: 450 FL No: 13.018 CoE No: 2014	Furfural	<chem>O=Cc1ccco1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURFURAL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB004219 [21,153]
23	120-57-0	204409 7	FEMA number: 2911 FEMA GRAS number: 3, 25 JECFA number: 896 FL No: 05.016 CoE No: 104	Piperonal	<chem>O=Cc1ccc2OCOc2c1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PIPERONAL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB010553 [22, 68, 90, 153]
24	60-29-7	200467 2	FEMA number: FEMA GRAS number:	Diethylether	<chem>CCOCC</chem>		https://foodb.ca/compounds/FDB004482 [23]

			JECFA number: FL No: CoE No:				
25	88-15-3	201804 6	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.040 CoE No: 11728	2-Acetyl thiophene	CC(=O)c1cccs1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB011134 [24,25]
26	13092-86-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Diketopiperazine	O=C1NCCNC1=O		[25]
27	110-89-4	203813 0	FEMA number: 2908 FEMA GRAS number: 3 JECFA number: 1607 FL No: 14.010 CoE No: 675	Piperidine	C1CCNCC1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PIPERIDINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB012644 [26,153]

28	121-32-4	204464 7	FEMA number: 2464 FEMA GRAS number: 3 JECFA number: 893 FL No: 05.019 CoE No: 108	Ethylvanillin	CCOc1cc(C=O)ccc1O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLVANILLIN https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [27]
29	157-06-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>D</i> -Arginine; (<i>R</i>)-2-Amino-5-guanidinopen-tanoic acid	NC(CCCNC(N)=N)C(O)=O		https://foodb.ca/compounds/FDB023167 [166]
30	70-47-3	200735 9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>L</i> -Asparagine; Aspartamic acid; (2 <i>S</i>)-2,4-Diamino-4-oxobutanoic acid	NC(CC(N)=O)C(O)=O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ASPARAGINE [156]
31	57-88-5	200353 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cholesterol; Cholest-5-en-3β-ol	CC(C)CCCC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C3CCC12C		[319]

32	328-48-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Isoglutamine; 4,5-Diamino-5-oxopentanoic acid; <i>DL</i> -Isoglutamine	<chem>C(CC(=O)O)C(C(=O)N)N</chem>		UNDER DEVELOPMENT
33	923-27-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>D</i> -Lysine; (2 <i>R</i>)-2,6-Diaminohexanoic acid	<chem>NCCCCC(N)C(O)=O</chem>		https://foodb.ca/compounds/FDB023163 [191]
34	150-30-1		FEMA number: 3726 FEMA GRAS number: 13 JECFA number: 1432 FL No: 17.017 CoE No: 10488	<i>DL</i> -Phenylalanine; 2-Amino-3-phenylpropanoic acid	<chem>NC(Cc1ccccc1)C(O)=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PHENYLALANINEDL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [194]
35	2139-03-9		FEMA number: FEMA GRAS number: JECFA number:	3,4-Dihydro-2 <i>H</i> -pyrrole-5-carboxylic acid; 1-Pyrroline-2-carboxylic acid;	<chem>C1CC(=NC1)C(=O)O</chem>		https://foodb.ca/compounds/FDB024129 [222]

			FL No: CoE No:	Pyrroline-5-carboxylate; 1-Pyrroline-2-carboxylate			
36	83-88-5	201507 1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Riboflavine; Vitamin B2	<chem>Cc1cc2N=C3C(=O)NC(=O)N=C3N(CC(O)C(O)C(O)CO)c2cc1C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=RIBOFLAVIN https://foodb.ca/compounds/FDB012160 [161]
37	59-92-7	200445 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>L</i> -Dopa zwitterion; (2 <i>S</i>)-2-Azaniumyl-3-(3,4-dihydroxyphenyl)-propanoate	<chem>N[C@@H](Cc1ccc(O)c(O)c1)C(O)=O</chem>		[201]
38	58-85-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>d</i> -Biotin; Vitamin H; Vitamin B7;	<chem>OC(=O)CCCC1SCC2NC(=O)NC12</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=BIOTIN [163]

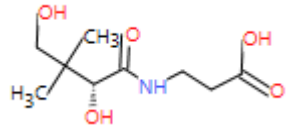
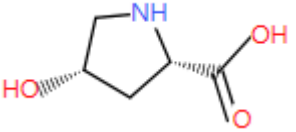
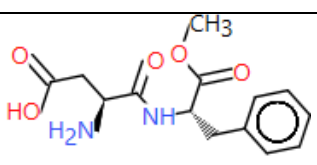
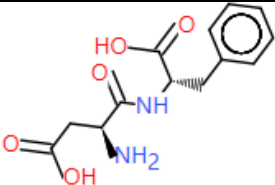
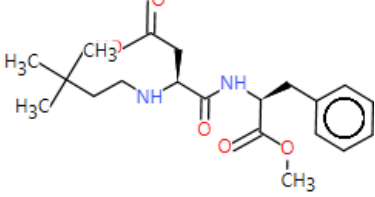
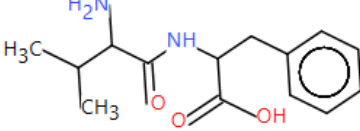
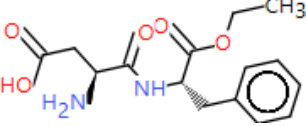
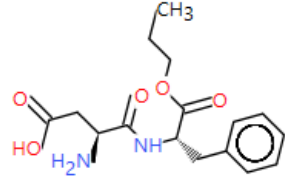
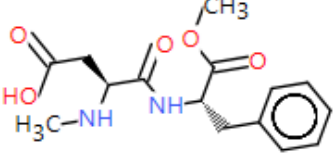
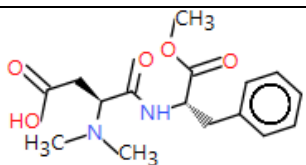
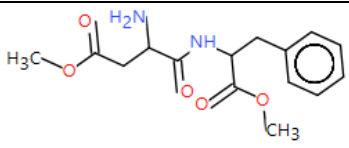
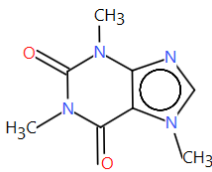
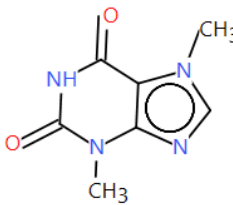
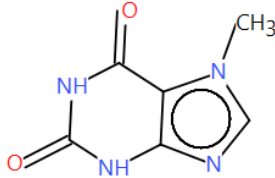
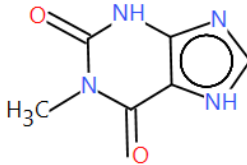
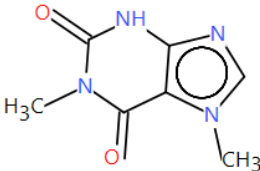
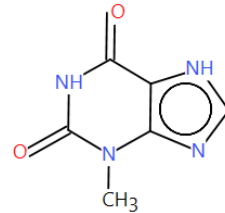
39	79-83-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>D</i> -Pantothenic acid; Vitamin B5;	<chem>CC(C)(CO)C(O)C(=O)NCCC(O)=O</chem>		https://foodb.ca/compounds/FDB030151 [164]
40	51-35-4	2000919	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>L</i> -Hydroxyproline; (2 <i>S</i> ,4 <i>R</i>)-4-hydroxypyrrolidine-2-carboxylic acid	<chem>OC1CNC(C1)C(O)=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HYDROXYPROLINE [165]

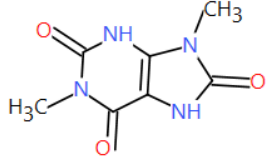
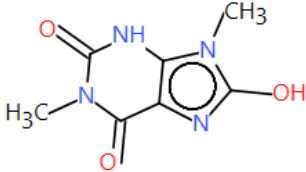
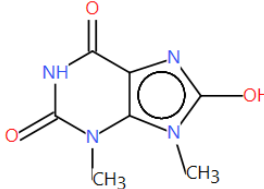
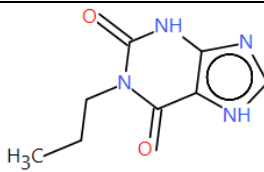
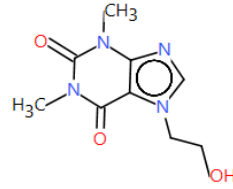
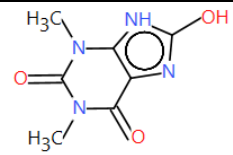
Table 2. Found analogues (K) closely structurally similar to each of the 40 Common food components (C) accepted by EFSA

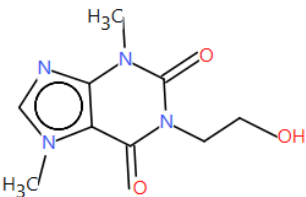
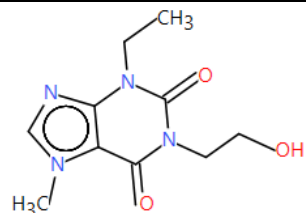
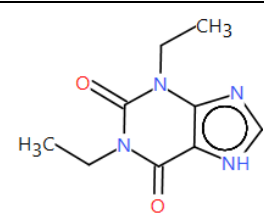
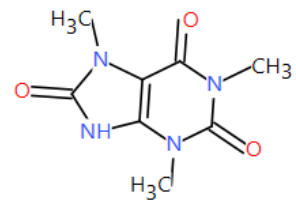
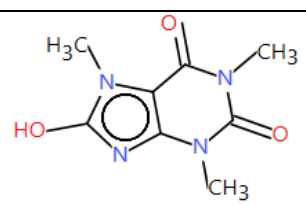
#	CAS #	EC #	Identification Numbers for Flavorings and Food Additives	Chemical name	SMILES	Structure	Reference source
1	22839-47-0	2452613	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Aspartame	<chem>COC(=O)C(Cc1ccccc1)NC(=O)C(N)CC(O)=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ASPARTAME

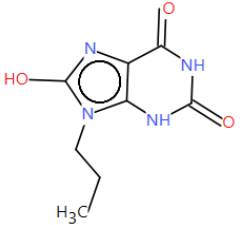
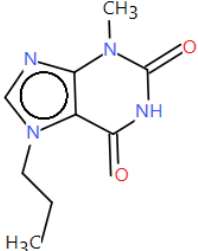
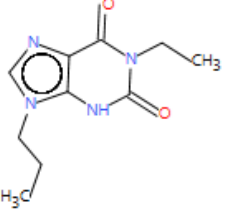
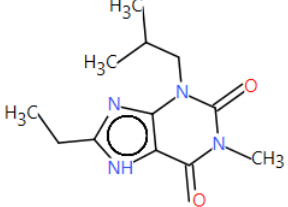
1.1	13433-09-5	2365573	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Aspartyl-phenylalanine (Aspartame metabolite)	<chem>NC(CC(O)=O)C(=O)NC(Cc1ccccc1)C(O)=O</chem>		[241]
1.2	165450-17-9	6054088	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Neotame	<chem>COC(=O)C(Cc1ccccc1)NC(=O)C(CC(O)=O)NCCC(C)(C)C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=NEOTAME [28,242]
1.3	3918-92-1	3918-92-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	L-Valyl-L-phenylalanine	<chem>CC(C)C(N)C(=O)NC(Cc1ccccc1)C(O)=O</chem>		https://foodb.ca/compounds/FDB112136 [29]
1.4	22839-83-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ethyl aspartylphenylalaninate	<chem>CCOC(=O)C(Cc1ccccc1)NC(=O)C(N)CC(O)=O</chem>		UNDER DEVELOPMENT
1.5			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(3S)-3-Amino-4-oxo-4-[[[(2S)-1-oxo-3-phenyl-1-propoxypropan-2-yl]amino]butanoic acid	<chem>CCCOC(=O)C(Cc1ccccc1)NC(=O)C(N)CC(O)=O</chem>		UNDER DEVELOPMENT
1.6	261943-16-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(2S)-2-[(N-Methyl-L-α-aspartyl)amino]-3-phenylpropionic acid 1-methyl ester	<chem>CNC(CC(O)=O)C(=O)NC(Cc1ccccc1)C(=O)OC</chem>		UNDER DEVELOPMENT

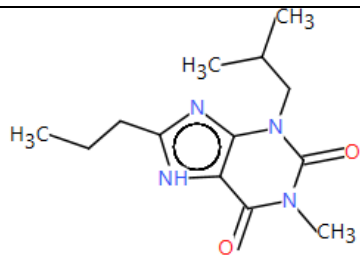
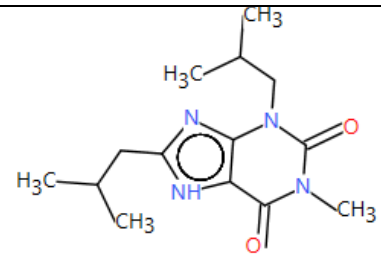
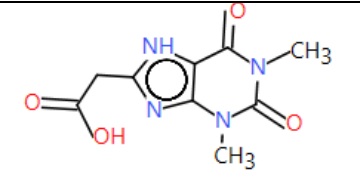
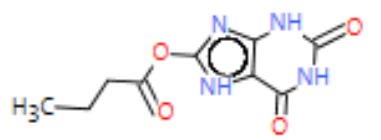
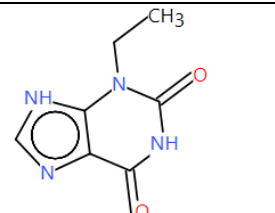
1.7			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(3 <i>S</i>)-3-(Dimethylamino)-4-[[<i>(2S)</i> -1-methoxy-1-oxo-3-phenylpropan-2-yl]amino]-4-oxobutanoic acid	<chem>COC(=O)C(Cc1ccccc1)NC(=O)C(CC(O)=O)N(C)C</chem>		UNDER DEVELOPMENT
1.8			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Methyl 3-amino-4-[[<i>(1-methoxy-1-oxo-3-phenyl-2-propanyl)</i> amino]-4-oxobutanoate	<chem>COC(=O)CC(C(=O)NC(Cc1ccccc1)C(=O)OC)N</chem>		UNDER DEVELOPMENT
2	58-08-2	200362 1	FEMA number: 2224 FEMA GRAS number: 3 JECFA number: FL No: 16.016 CoE No: 11741	Caffeine	<chem>CN1C(=O)N(C)c2ncn(C)c2C1=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=CAFFEINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB002100 [2,137]
2.1	83-67-0	201494 2	FEMA number: 3591 FEMA GRAS number: 11 JECFA number: FL No: 16.032 CoE No:	Theobromine	<chem>CN1C(=O)NC(=O)c2c1ncn2C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=THEOBROMINE https://eur-lex.europa.eu/legal-

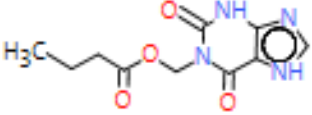
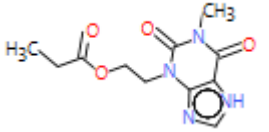
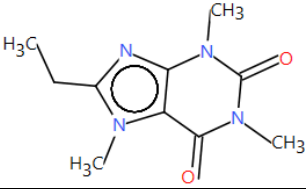
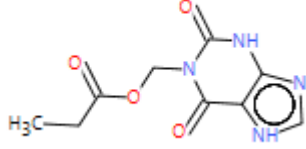
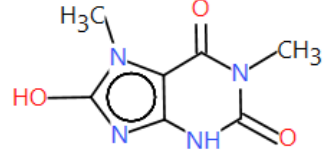
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							[31,149]
2.2	552-62-5	2090190	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Heteroxanthine	<chem>Cn1cnc2NC(=O)NC(=O)c12</chem>		https://foodb.ca/compounds/FDB001978 [32]
2.3	6136-37-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Methylxanthine	<chem>CN1C(=O)Nc2nc[nH]c2C1=O</chem>		https://foodb.ca/compounds/FDB027885 [33]
2.4	611-59-6	2102719	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,7-Dimethylxanthine	<chem>CN1C(=O)Nc2ncn(C)c2C1=O</chem>		https://foodb.ca/compounds/FDB022714 [34]
2.5	1076-22-8	2140581	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Methylxanthine	<chem>CN1C(=O)NC(=O)c2[nH]cnc12</chem>		https://foodb.ca/compounds/FDB022724 [35]

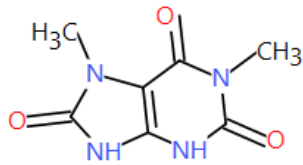
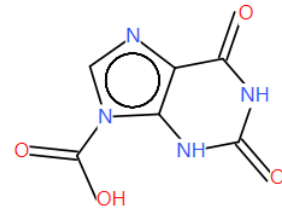
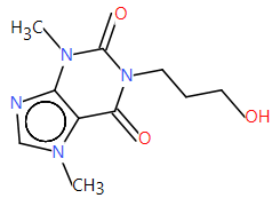
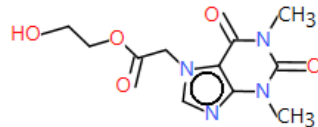
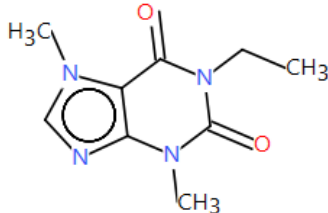
2.6	55441-62-8 Stabil tautomeric form		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,9-Dimethyl- 2,6,8- trihydroxypurine	<chem>CN1C(=O)NC2N(C)C(=O)NC=2C1=O</chem>		https://foodb.ca/compounds/FDB022804 [36]
2.7	55441-62-8	2596390	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,9-Dimethyluric acid	<chem>CN1C(=O)Nc2c(nc(O)n2C)C1=O</chem>		https://foodb.ca/compounds/FDB022804 [37]
2.8	55441-63-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3,9-Dimethyluric acid	<chem>CN1C(=O)NC(=O)c2nc(O)n(C)c12</chem>		UNDER DEVELOPMENT
2.9	104285-82-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Propylxanthine	<chem>CCCN1C(=O)Nc2nc[nH]c2C1=O</chem>		UNDER DEVELOPMENT
2.10	519-37-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Etofylline	<chem>CN1C(=O)N(C)c2ncn(CCOC)c2C1=O</chem>		UNDER DEVELOPMENT
2.11	944-73-0	2134101	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,3-Dimethyluric acid	<chem>CN1C(=O)N(C)c2[nH]c(O)nc2C1=O</chem>		https://foodb.ca/compounds/FDB022712 [38]

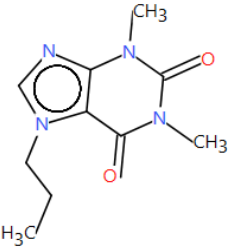
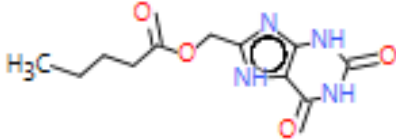
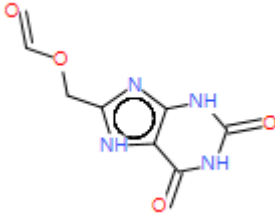
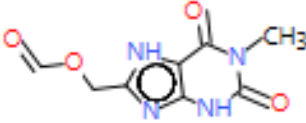
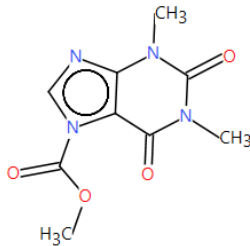
2.12	1507-14-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Oxyethyltheobromine	<chem>CN1C(=O)N(CCO)C(=O)c2c1ncn2C</chem>		UNDER DEVELOPMENT
2.13			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	CCN1C(=O)N(CCO)C(=O)c2c1ncn2C	<chem>Cn1cnc2NC(=O)N(O)C(=O)c12</chem>		UNDER DEVELOPMENT
2.14	5169-95-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,3-Diethylxanthine	<chem>CCN1C(=O)N(CC)c2nc[nH]c2C1=O</chem>		UNDER DEVELOPMENT
2.15	5415-44-1 Stabil tautomeric form of CAS 7464-93-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,3,7-Trimethyluric acid	<chem>CN1C2=C(NC1=O)N(C(=O)N(C2=O)C)C</chem>		https://foodb.ca/compounds/FDB030187 [39]
2.16	7464-93-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,3,7-Trimethyl-7,9-dihydro-1H-purine-2,6,8(3H)-trione	<chem>CN1C(=O)N(C)c2nc(O)n(C)c2C1=O</chem>		https://foodb.ca/compounds/FDB030187 UNDER DEVELOPMENT

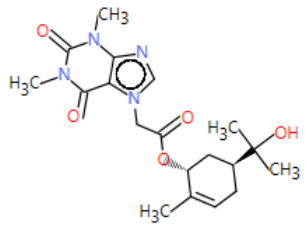
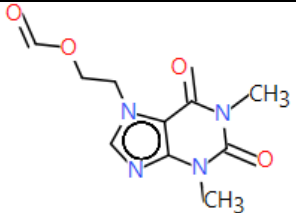
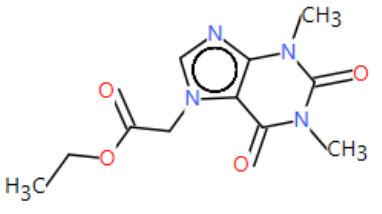
2.17			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>CCCn1c(O)nc2C(=O)NC(=O)Nc12</chem>		UNDER DEVELOPMENT
2.18	55242-64-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Methyl-7-propylxanthine	<chem>CCCn1cnc2N(C)C(=O)NC(=O)c12</chem>		UNDER DEVELOPMENT
2.19			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>CCCn1cnc2C(=O)N(CC)C(=O)Nc12</chem>		UNDER DEVELOPMENT
2.20	132560-07-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Xanthine, 8-ethyl-3-isobutyl-1-methyl-	<chem>CCc1nc2N(CC(C)C)C(=O)N(C)C(=O)c2[nH]1</chem>		UNDER DEVELOPMENT

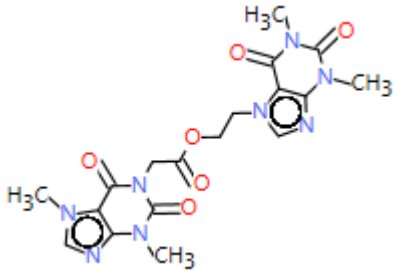
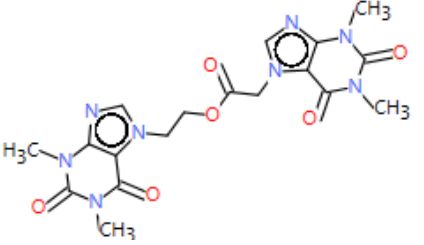
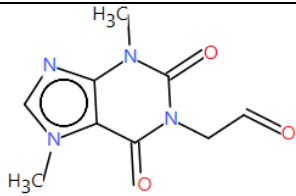
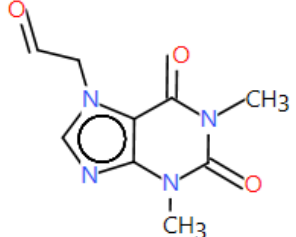
2.21	132560-08-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Xanthine, 3-isobutyl-1-methyl-8-propyl-	<chem>CCCC1nc2N(CC(C)C)C(=O)N(C)C(=O)c2[nH]1</chem>		UNDER DEVELOPMENT
2.22	132560-10-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Xanthine, 3,8-diisobutyl-1-methyl-	<chem>CC(C)CN1C(=O)N(C)C(=O)c2[nH]c(CC(C)C)nc12</chem>		UNDER DEVELOPMENT
2.23	5439-51-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Theophylline-8-acetic acid	<chem>CN1C(=O)N(C)c2nc(CC(=O)O)=O[nH]c2C1=O</chem>		UNDER DEVELOPMENT
2.24		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>CCCC(=O)Oc1nc2NC(=O)NC(=O)c2[nH]1</chem>		UNDER DEVELOPMENT
2.25	41078-01-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Ethylxanthine	<chem>CCN1C(=O)NC(=O)c2nc[nH]c12</chem>		UNDER DEVELOPMENT

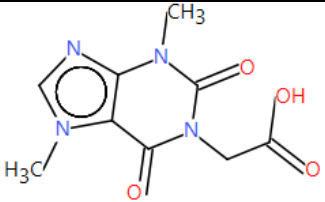
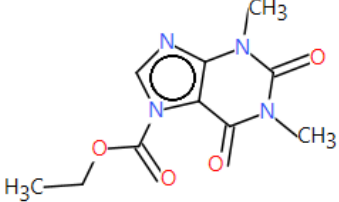
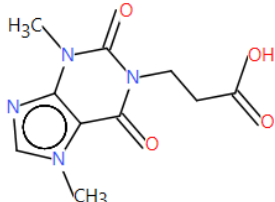
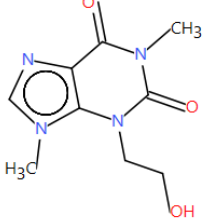
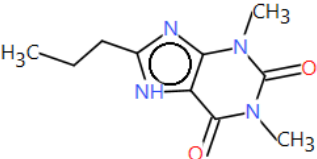
2.26			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>CCCC(=O)OCN1C(=O)Nc2nc[nH]c2C1=O</chem>		UNDER DEVELOPMENT
2.27			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>CCC(=O)OCCN1C(=O)N(C)C(=O)c2[nH]cnc12</chem>		UNDER DEVELOPMENT
2.28	5426-50-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	8-Ethyl-1,3,7-trimethyl-1H-purine-2,6(3H,7H)-dione	<chem>CCc1nc2N(C)C(=O)N(C)C(=O)c2n1C</chem>		UNDER DEVELOPMENT
2.29			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>CCC(=O)OCN1C(=O)NC2N=CNC=2C1=O</chem>		UNDER DEVELOPMENT
2.30	33868-03-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,7-Eimethyl-7,9-dihydro-1H-purine-2,6,8(3H)-trione	<chem>CN1C(=O)Nc2nc(O)n(C)c2C1=O</chem>		https://foodb.ca/compounds/FDB027886 UNDER DEVELOPMENT

2.31	33868-03-0 Stabilizer tautomeric form of 2.32	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,7-Dimethyluric acid	<chem>CN1C(=O)NC2NC(=O)N(C)C=2C1=O</chem>		https://foodb.ca/compounds/FDB027886 [40]
2.32	71965-22-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,2,3,6-Tetrahydro-2,6-dioxo-9H-purine-9-carboxylic acid	<chem>OC(=O)n1cnc2C(=O)NC(=O)Nc12</chem>		UNDER DEVELOPMENT
2.33	59413-14-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-(3-Hydroxypropyl)theobromine	<chem>CN1C(=O)N(CCCO)C(=O)c2c1ncn2C</chem>		UNDER DEVELOPMENT
2.34	61379-38-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Hydroxyethyl 1,2,3,6-tetrahydro-1,3-dimethyl-2,6-dioxo-7H-purine-7-acetate	<chem>CN1C(=O)N(C)c2ncn(CC(=O)OCCO)c2C1=O</chem>		UNDER DEVELOPMENT
2.35	39832-36-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Ethyltheobromine	<chem>CCN1C(=O)N(C)c2ncn(C)c2C1=O</chem>		UNDER DEVELOPMENT

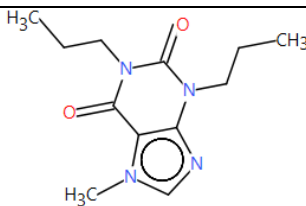
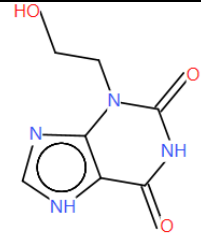
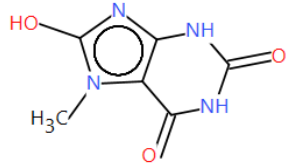
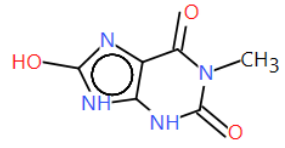
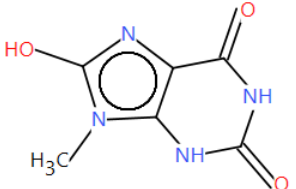
2.36	27760-74-3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Theophylline, n-propyl derivative	<chem>CCCn1cnc2N(C)C(=O)N(C)C(=O)c21</chem>	 Theophylline core with a methyl group on the 3-position nitrogen and a propyl group on the 7-position nitrogen.	UNDER DEVELOPMENT
2.37		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>CCCCC(=O)OCc1nc2NC(=O)NC(=O)c2[nH]1</chem>	 Caffeine core with a propyl ester group attached to the 5-position.	UNDER DEVELOPMENT
2.38		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>O=COCc1nc2NC(=O)NC(=O)c2[nH]1</chem>	 Caffeine core with a formyl ester group attached to the 5-position.	UNDER DEVELOPMENT
2.39		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>CN1C(=O)Nc2nc(COC=O)[nH]c2C1=O</chem>	 Caffeine core with a methyl group on the 3-position nitrogen and a formyl ester group on the 5-position.	UNDER DEVELOPMENT
2.40	65029-15-4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Methyl 1,3-dimethyl-2,6-dioxo-1,2,3,6-tetrahydro-7H-purine-7-carboxylate	<chem>COC(=O)n1cnc2N(C)C(=O)N(C)C(=O)c21</chem>	 Caffeine core with methyl groups on the 3 and 7 position nitrogens and a methyl ester group on the 7-position.	UNDER DEVELOPMENT

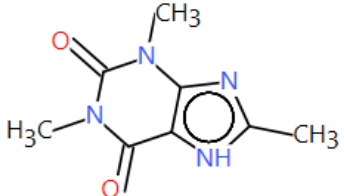
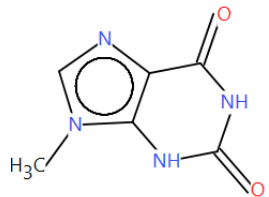
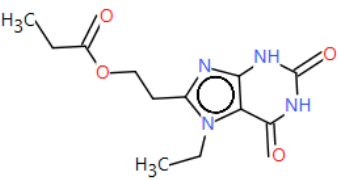
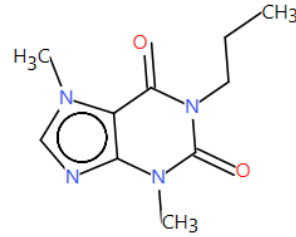
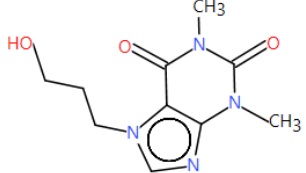
2.41	101691-39-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Theophylline-7-acetic acid ester of d,l-trans-sobrerol	<chem>CN1C(=O)N(C)c2ncn(CC(=O)O[C@@H]3C[C@H](CC=C3C)C(C)(C)O)c2C1=O</chem>		UNDER DEVELOPMENT
2.42		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-(1,3-Dimethyl-2,6-dioxopurin-7-yl)ethyl formate	<chem>CN1C(=O)N(C)c2ncn(CCOC=O)c2C1=O</chem>		UNDER DEVELOPMENT
2.43	7029-96-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ethyl (1,3-dimethyl-2,6-dioxo-1,2,3,6-tetrahydro-7H-purin-7-yl)acetate	<chem>CCOC(=O)Cn1cnc2N(C)C(=O)N(C)C(=O)c12</chem>		UNDER DEVELOPMENT

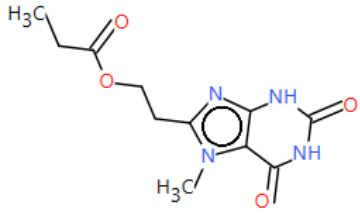
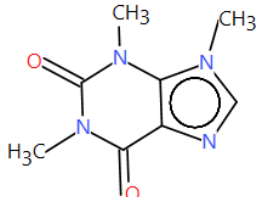
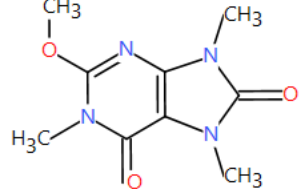
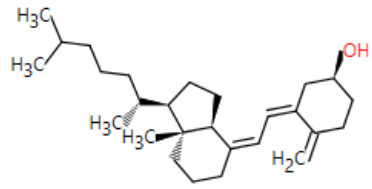
2.44	169563-64-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-(1,3-Dimethyl-2,6-dioxopurin-7-yl)ethyl 2-(3,7-dimethyl-2,6-dioxopurin-1-yl)acetate	<chem>CN1C(=O)N(C)c2ncn(CCOC(=O)CN3C(=O)N(C)c4ncn(C)c4C3=O)c2C1=O</chem>		UNDER DEVELOPMENT
2.45	169563-63-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7H-Purine-7-acetic acid, 1,2,3,6-tetrahydro-1,3-dimethyl-2,6-dioxo-, 2-(1,3-dimethyl-2,6-dioxo-1,2,3,6-tetrahydro-7H-purin-7-yl)ethyl ester	<chem>CN1C(=O)N(C)c2ncn(CCOC(=O)Cn3cnc4N(C)C(=O)N(C)C(=O)c34)c2C1=O</chem>		UNDER DEVELOPMENT
2.46		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Coffein-al	<chem>CN1C(=O)N(CC=O)C(=O)c2c1ncn2C</chem>		UNDER DEVELOPMENT
2.47	5614-53-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Theophylline-7-acetaldehyde	<chem>CN1C(=O)N(C)c2ncn(CC=O)c2C1=O</chem>		UNDER DEVELOPMENT

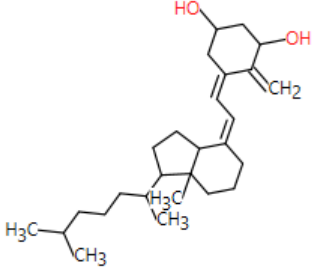
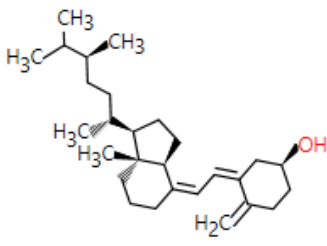
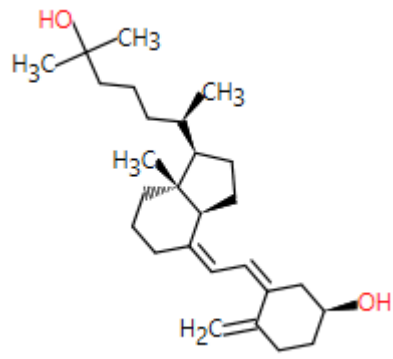
2.48	5614-56-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Theobromineacetic acid	<chem>CN1C(=O)N(CC(O)=O)C(=O)c2c1ncn2C</chem>		UNDER DEVELOPMENT
2.49	101774-91-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,3-Dimethyl-2,6-dioxo-1,2,3,6-tetrahydro-purine-7-carboxylic acid ethyl ester	<chem>CCOC(=O)n1cnc2N(C)C(=O)N(C)C(=O)c12</chem>		UNDER DEVELOPMENT
2.50	5815-65-6	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-(3,7-Dimethyl-2,6-dioxo-2,3,6,7-tetrahydro-1H-purin-1-yl)propanoic acid	<chem>CN1C(=O)N(CCC(O)=O)C(=O)c2c1ncn2C</chem>		UNDER DEVELOPMENT
2.51	87866-16-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Xanthine, 1,9-dimethyl-3-(2-hydroxyethyl)-	<chem>CN1C(=O)N(CCO)c2c(ncn2C)C1=O</chem>		UNDER DEVELOPMENT
2.52	2850-41-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	8-Propyltheophylline	<chem>CCCc1nc2N(C)C(=O)N(C)C(=O)c2[nH]1</chem>		UNDER DEVELOPMENT

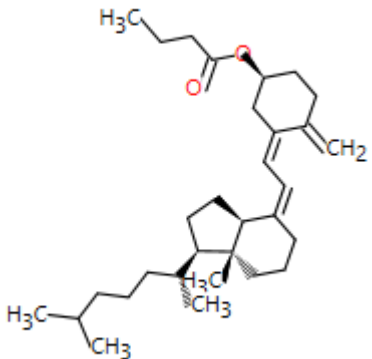
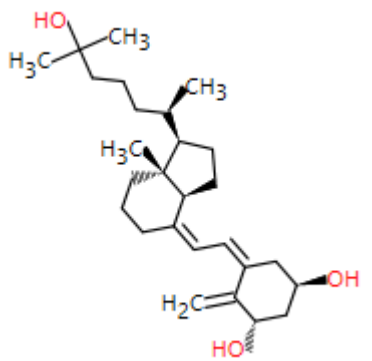
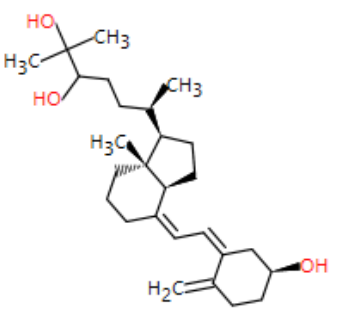
2.53	33073-01-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,9-Dimethylxanthine	<chem>CN1C(=O)Nc2c(ncn2C)C1=O</chem>		UNDER DEVELOPMENT
2.54	652-37-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Acefylline	<chem>CN1C(=O)N(C)c2ncn(CC(O)=O)c2C1=O</chem>		UNDER DEVELOPMENT
2.55	31542-47-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Xanthine, 3-(2-hydroxyethyl)-1-methyl-	<chem>CN1C(=O)N(CCO)c2nc[nH]c2C1=O</chem>		UNDER DEVELOPMENT
2.56	32865-30-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,3,7-Triethylxanthine	<chem>CCN1C(=O)N(CC)c2ncn(CC)c2C1=O</chem>		UNDER DEVELOPMENT
2.57	31542-62-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,3-Dipropylxanthine	<chem>CCCN1C(=O)N(CCC)c2nc[nH]c2C1=O</chem>		UNDER DEVELOPMENT

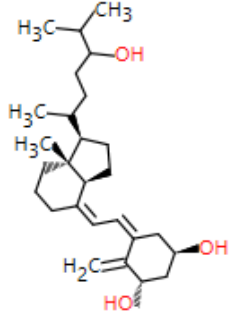
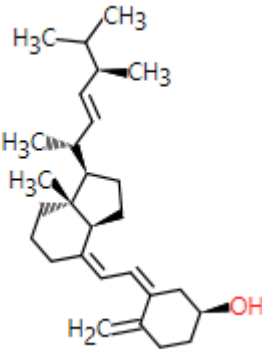
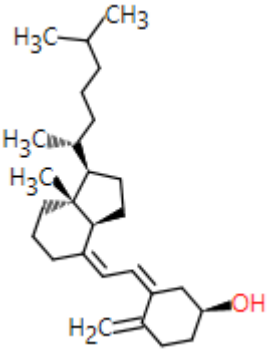
2.58	31542-63-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,3-Dipropyl-7-methylxanthine	<chem>CCCN1C(=O)N(CCC)c2ncn(C)c2C1=O</chem>		UNDER DEVELOPMENT
2.59	31542-69-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Xanthine, 3-(2-hydroxyethyl)-	<chem>OCCN1C(=O)NC(=O)c2[nH]cnc12</chem>		UNDER DEVELOPMENT
2.60	612-37-3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7-Methyluric acid	<chem>Cn1c(O)nc2NC(=O)NC(=O)c12</chem>		https://foodb.ca/compounds/FDB027890
2.61	708-79-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Methyluric acid	<chem>CN1C(=O)Nc2[nH]c(O)nc2C1=O</chem>		https://foodb.ca/compounds/FDB023107
2.62	55441-71-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	9-Methyluric acid	<chem>Cn1c(O)nc2C(=O)NC(=O)Nc12</chem>		https://foodb.ca/compounds/FDB022772

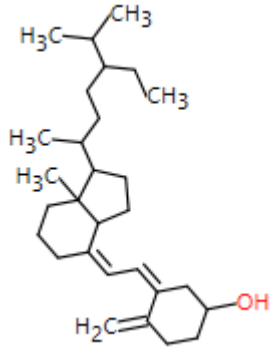
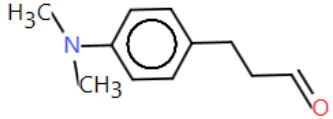
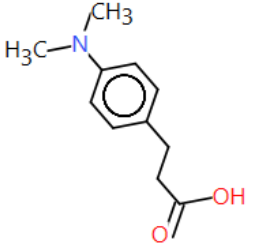
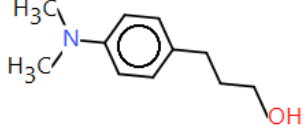
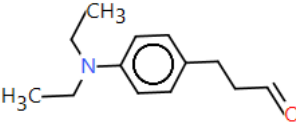
2.63	830-65-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	8-Methyltheophylline	<chem>CN1C(=O)N(C)c2nc(C)[nH]c2C1=O</chem>		UNDER DEVELOPMENT
2.64	1198-33-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	9-Methylxanthine	<chem>Cn1cnc2C(=O)NC(=O)Nc12</chem>		UNDER DEVELOPMENT
2.65		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>CCC(=O)OCCc1nc2NC(=O)NC(=O)c2n1CC</chem>		UNDER DEVELOPMENT
2.66	63906-63-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Propyl theobromine	<chem>CCCN1C(=O)N(C)c2ncn(C)c2C1=O</chem>		UNDER DEVELOPMENT
2.67	23146-04-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7-(3-Hydroxypropyl)theophylline	<chem>CN1C(=O)N(C)c2ncn(CC(O)C)C1=O</chem>		UNDER DEVELOPMENT

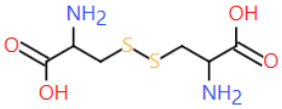
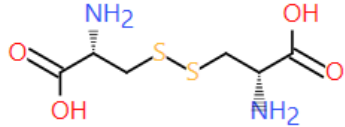
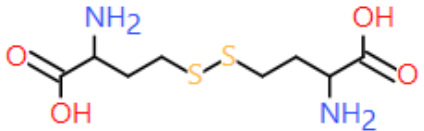
2.68	22052-01-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:		<chem>CCC(=O)OCCc1nc2NC(=O)NC(=O)c2n1C</chem>		UNDER DEVELOPMENT
2.69	519-32-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Isocaffeine	<chem>CN1C(=O)N(C)c2c(ncn2C)C1=O</chem>		UNDER DEVELOPMENT
2.70	51168-26-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Methylxanthine; 2-Methoxy-1,7,9-trimethylpurine-6,8-dione	<chem>CN1C2=C(N=C(N(C2=O)C)OC)N(C1=O)C</chem>		[303]
3	1406-16-2	2157972	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Vitamin D	<chem>CC(C)CCCC(C)C1CCC2C(/CCCC12C)=C/C=C1/CC(O)CCC1=C</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=VITAMIND3 https://foodb.ca/compounds/FDB021586 [3,154]

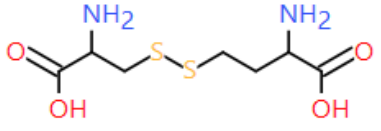
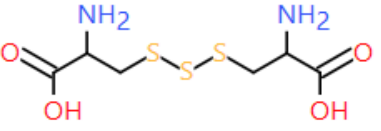
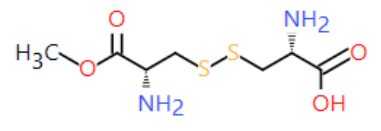
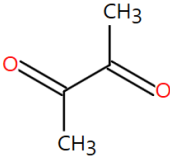
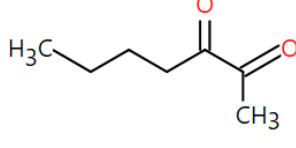
3.1	41294-56-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Alfacalcidol (metabolite of vitamin D3)	<chem>CC(C)CCCC(C)C1CCC2C(CCCC12C)=CC=C1CC(O)CC(O)C1=C</chem>	 <p>The structure shows a complex polycyclic steroid-like core with a long side chain containing two methyl groups and a terminal dihydroxyethylidene group.</p>	[243]
3.2	511-28-4	2081275	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Vitamin D4; 22,23-Dihydroergocalciferol	<chem>CC(C)C(C)CCC(C)C1CC2C(CCCC12C)=C\C=C1CC(O)CCC1=C</chem>	 <p>The structure features a steroid-like core with a long side chain containing two methyl groups and a terminal dihydroxyethylidene group, similar to Alfacalcidol but with a different ring fusion.</p>	[244]
3.3	19356-17-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Calcifediol	<chem>CC(CCCC(C)(C)O)C1CC2C1(CCCC2=CC=C3CC(CCC3=C)O)C</chem>	 <p>The structure shows a steroid-like core with a long side chain containing two methyl groups and a terminal dihydroxyethylidene group, with a different ring fusion compared to the other two compounds.</p>	https://foodb.ca/compounds/FDB021782 [41]

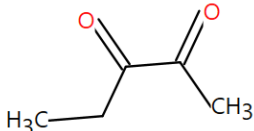
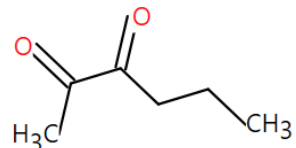
3.4	31316-20-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Vitamin D3 butyrate	<chem>CCCC(=O)OC1CCC(=C)\C(C1)=C/C=C1CCCC2(C)C(CCC12)C(C)CCCC(C)C</chem>		UNDER DEVELOPMENT
3.5	32222-06-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No	Rocaltrol; Calcitriol (Metabolite of vitamin D3)	<chem>CC(CCCC(C)(C)O)C1CC2C1(CCCC2=CC=C3CC(CC(C3=C)O)O)C</chem>		[245]
3.6	40013-87-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Dihydroxycholecalciferol; 24,25-Dihydroxy VD3 (Metabolite of vitamin D3)	<chem>CC(CCC(O)C(C)(C)O)C1CCC2(C1)C(CCCC12)=C\C=C1CC(O)CCC1=C</chem>		[246]

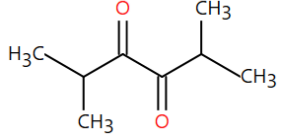
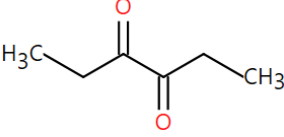
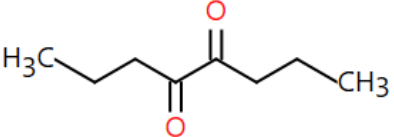
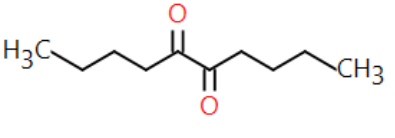
3.7	57333-96-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Tacalcitol (an analogue of active vitamin D3 used in the treatment of skin diseases)	<chem>CC(C)C(CCC(C)C1CCC2C1(CCCC2=CC=C3CC(C(C3=C)O)O)C)O</chem>	 <p>The structure shows a steroid-like core with a side chain containing a hydroxyl group and a methyl group, and a ring system with a double bond and a hydroxyl group.</p>	[247]
3.8	50-14-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ergocalciferol; Vitamin D2	<chem>CC(C)C(C)C=CC(C)C1C CC2C1(CCCC2=CC=C3C C(CCC3=C)O)C</chem>	 <p>The structure shows a steroid-like core with a side chain containing a double bond and a methyl group, and a ring system with a double bond and a hydroxyl group.</p>	https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=VITAMIND2 https://foodb.ca/compounds/FDB012811 [42]
3.9	67-97-0	2006732	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cholecalciferol; Vitamin D3	<chem>CC(CCCC(C)C)C1CCC2C1(CCC/C2=C/C=C/3\CC(CCC3=C)O)C</chem>	 <p>The structure shows a steroid-like core with a side chain containing a double bond and a methyl group, and a ring system with a double bond and a hydroxyl group.</p>	https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=VITAMIND3 https://foodb.ca/compounds/FDB021586 [221]

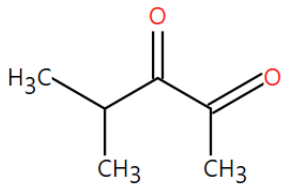
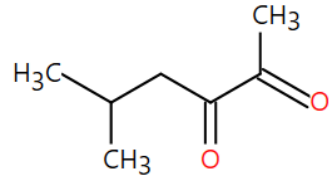
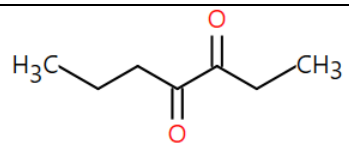
3.10			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No	Sitocalciferol; Vitamin D5	<chem>CCC(CCC(C)C1CCC\2C1(CCC/C2=C\C=C/3\CC(CCC3=C)O)C)C(C)C</chem>		[248]
4	377084-04-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-[4-(Dimethylamino)phenyl]propanal	<chem>CN(C)c1ccc(CCC=O)cc1</chem>		UNDER DEVELOPMENT
4.1.	73718-09-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-[4-(Dimethylamino)phenyl]propanoic acid	<chem>CN(C)C1=CC=C(C=C1)C(CC(=O)O)</chem>		UNDER DEVELOPMENT
4.2.	85665-76-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-[4-(Dimethylamino)phenyl]propan-1-ol	<chem>CN(C)C1=CC=C(C=C1)C(CCO)</chem>		UNDER DEVELOPMENT
4.3.	1781650-64-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-[4-(Diethylamino)phenyl]propanal	<chem>CCN(CC)C1=CC=C(C=C1)CCC=O</chem>		UNDER DEVELOPMENT

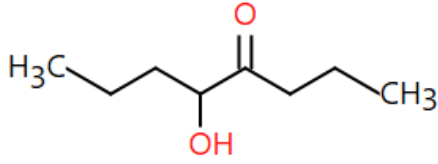
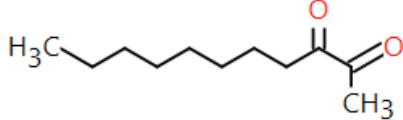
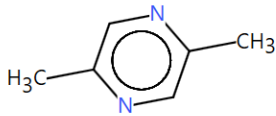
5	923-32-0	213094 5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cystine; DL-Cystine	NC(CSSCC(N)C(O)=O) C(O)=O		https://www.hfpa.ppexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=CYSTINEDL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [4]
5.1	56-89-3	200296 3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cystine; L-Cystine	NC(CSSCC(N)C(O)=O)C(O)=O		https://www.hfpa.ppexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=CYSTINEL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [249, 250]
5.2	462-10-2	207323 8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	DL-Homocystine	NC(CCSSCCC(N)C(O)=O) C(O)=O		UNDER DEVELOPMENT

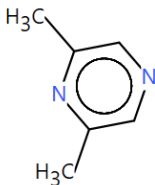
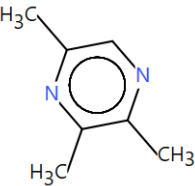
5.3	4985-47-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Homocysteine-cysteine disulfide	<chem>NC(CCSSCC(N)C(O)=O)C(O)=O</chem>		UNDER DEVELOPMENT
5.4	14172-54-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Thiocystine (a naturally occurring compound)	<chem>NC(CSSCC(N)C(O)=O)C(O)=O</chem>		[251]
5.5	82356-84-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cystine, methyl ester	<chem>COC(=O)C(CSSCC(C(=O)O)N)N</chem>		UNDER DEVELOPMENT
6	431-03-8	2070698	FEMA number: 2370 FEMA GRAS number: 3 JECFA number: 408 FL No: 07.052 CoE No: 752	2,3-Butanedione; Diacetyl	<chem>CC(=O)C(C)=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIACETYL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [5,138]
6.1	96-04-8	2024725	FEMA number: 2543 FEMA GRAS number: 3, 25 JECFA number: 415 FL No: 07.064 CoE No: 2044	2,3-Heptanedione	<chem>CCCCC(=O)C(C)=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HEPTANEDIONE https://eur-lex.europa.eu/legal-

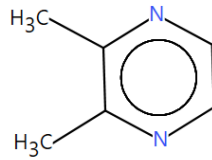
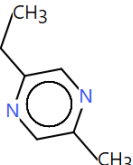
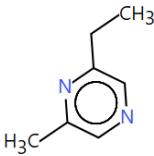
							content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB008049 [43,252]
6.2	600-14-6	6051435	FEMA number: 2841 FEMA GRAS number: 3 JECFA number: 410 FL No: 07.060 CoE No: 2039	2,3-Pentanedione	CCC(=O)C(C)=O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PENTANEDIONE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB008229 [44,252]
6.3	3848-24-6	2233508	FEMA number: 2558 FEMA GRAS number: 3, 25 JECFA number: 412 FL No: 07.018 CoE No: 152	2,3-Hexanedione	CCCC(=O)C(C)=O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HEXANEDIONE23 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB008070 [45,252]

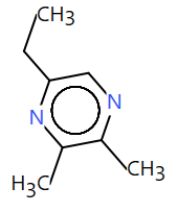
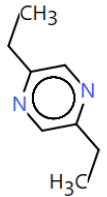
6.4	4388-87-8	8649945	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,5-Dimethyl-3,4-hexanedione	<chem>CC(C)C(=O)C(=O)C(C)C</chem>		UNDER DEVELOPMENT
6.5	4437-51-8	2246517	FEMA number: 3168 FEMA GRAS number: 4 JECFA number: 413 FL No: 07.077 CoE No: 2255	3,4-Hexanedione	<chem>CCC(=O)C(=O)CC</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HEXANEDIONE34 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [46,252]
6.6	5455-24-3		FEMA number: 4533 FEMA GRAS number: 24 JECFA number: 2037 FL No: 07.071 CoE No: 2141	4,5-Octanedione	<chem>CCCC(=O)C(=O)CCC</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=OCTANEDIONE45 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [47]
6.7	5579-73-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5,6-Decanedione	<chem>CCCCC(=O)C(=O)CCCC</chem>		UNDER DEVELOPMENT

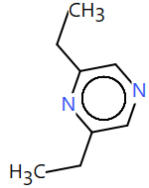
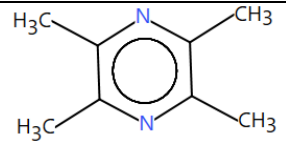
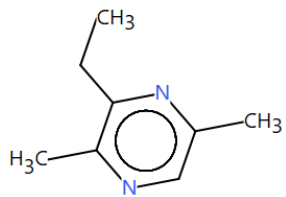
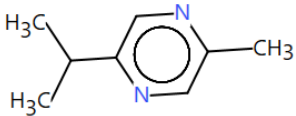
6.8	7493-58-5	2313284	FEMA number: 2730 FEMA GRAS number: 3 JECFA number: 411 FL No: 07.063 CoE No: 2043	Acetyl isobutyryl; 4-Methylpentane-2,3-dione	CC(C)C(=O)C(C)=O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLPENTANEDIONE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB008172 [48,252]
6.9	13706-86-0	2372418	FEMA number: 3190 FEMA GRAS number: 4, 25 JECFA number: 414 FL No: 07.093 CoE No: 11148	Acetyl isovaleryl; 5-Methyl-2,3-hexanedione	CC(C)CC(=O)C(C)=O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLHEXANEDIONE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB008223 [49,252]
6.10	13706-89-3	2372423	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3,4-Heptanedione	CCCC(=O)C(=O)CC		UNDER DEVELOPMENT

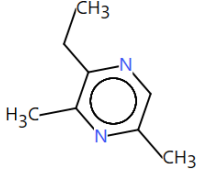
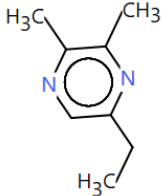
6.11	496-77-5	207830 4	FEMA number: 2587 FEMA GRAS number: 3, 25 JECFA number: 416 FL No: 07.067 CoE No: 2045	5-Hydroxy-4- octanone	CCCC(C(=O)CCC)O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HYDROXYOCTANONE54 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [252, 254]
6.12	7493-59-6	231330 5	FEMA number: 3090 FEMA GRAS number: 3 JECFA number: 417 FL No: 07.021 CoE No: 155	Undecane-2,3- dione	CCCCCCCCC(=O)C(=O)C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=UNDECADIONE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [252, 255]
7	123-32-0	204618 3	FEMA number: 3272 FEMA GRAS number: 5 JECFA number: 766 FL No: 14.020 CoE No: 2210	2,5-Dimethyl- pyrazine	Cc1cnc(C)cn1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLPYRAZINE25 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB0139

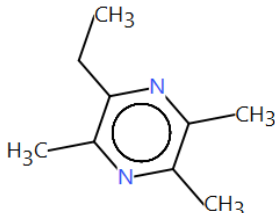
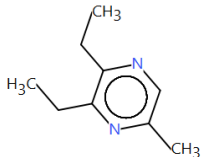
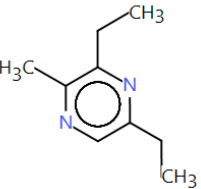
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7.1	108-50-9	203589 4	FEMA number: 3273 FEMA GRAS number: 5 JECFA number: 767 FL No: 14.021 CoE No: 2211	2,6- Dimethylpyrazine	<chem>Cc1cncc(C)n1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLPYRAZINE26 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB004391 [50,256, 258]
7.2	14667-55-1	238712 0	FEMA number: 3244 FEMA GRAS number: 4, 25 JECFA number: 774 FL No: 14.019 CoE No: 735	2,3,5- Trimethylpyrazine	<chem>Cc1cn(C)c(C)n1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TRIMETHYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB008527 [51,258]

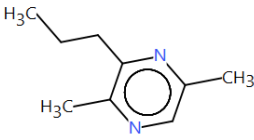
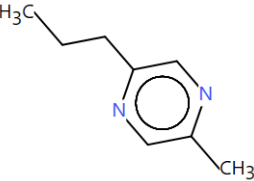
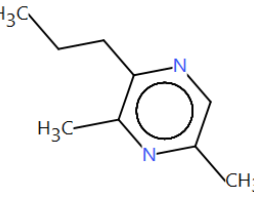
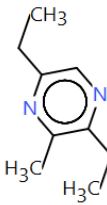
7.3	5910-89-4	2276300	FEMA number: 3271 FEMA GRAS number: 5, 25 JECFA number: 765 FL No: 14.050 CoE No: 11323	2,3-Dimethylpyrazine	Cc1nccnc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLPYRAZINE23 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB010958 [52,256, 258]
7.4	13360-64-0	2364166	FEMA number: 3154 FEMA GRAS number: 4, 25 JECFA number: 770 FL No: 14.017 CoE No: 728	2-Ethyl-5-methylpyrazine	CCc1cnc(C)cn1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLME THYLPYRAZINE25 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB004429 [53,256, 258]
7.5	13925-03-6	2376920	FEMA number: 3919 FEMA GRAS number: 19 JECFA number: 769 FL No: 14.114 CoE No: 11331	2-Ethyl-6-methylpyrazine	CCc1cncc(C)n1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLME THYLPYRAZINE26 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB004429 [53,256, 258]

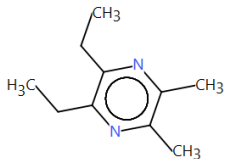
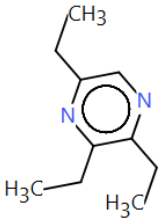
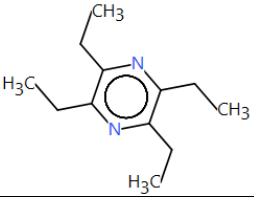
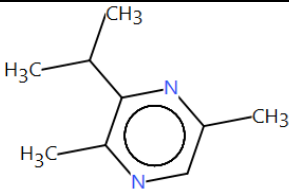
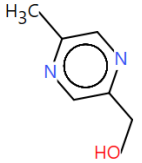
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7.6	15707-34-3		FEMA number: 4434 FEMA GRAS number: 24 JECFA number: 2126 FL No: 14.170 CoE No:	2,3-Dimethyl-5-ethylpyrazine	CCc1cnc(C)c(C)n1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLDIMETHYLPYRAZINE523 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB000923 [55,256]
7.7	13238-84-1		FEMA number: FEMA GRAS number: JECFA number: FL No: 14.097 CoE No: 11306	2,5-Diethylpyrazine	CCc1cnc(CC)cn1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB015754 [56,256]

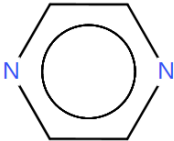
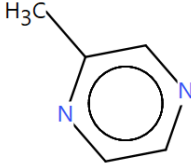
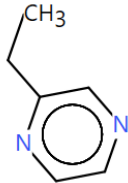
7.8	13067-27-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,6-Diethylpyrazine	CCc1cncc(CC)n1		https://foodb.ca/compounds/FDB015755 [57,256]
7.9	1124-11-4	2143912	FEMA number: 3237 FEMA GRAS number: 4, 25 JECFA number: 780 FL No: 14.018 CoE No: 734	2,3,5,6-Tetramethylpyrazine	Cc1nc(C)c(C)nc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TETRAMETHYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB015495 [58,256 258]
7.10	13360-65-1	2364171	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.111 CoE No:	3-Ethyl-2,5-dimethylpyrazine	CCc1nc(C)cnc1C		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB020022 [59,256,258]
7.11	13925-05-8		FEMA number: 3554 FEMA GRAS number: 11, 25 JECFA number: 772 FL No: 14.026 CoE No: 2268	2-Isopropyl-5-methylpyrazine	CC(C)c1cnc(C)n1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLISOPROPYLPYRAZINE

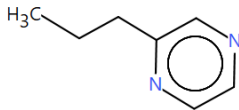
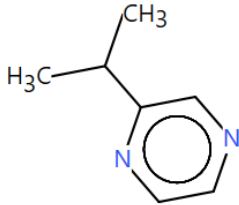
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7.12	13925-07-0		FEMA number: 3150 FEMA GRAS number: 4 JECFA number: 776 FL No: 14.024 CoE No:2245	2-Ethyl-3,5-dimethylpyrazine	CCc1ncc(C)nc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLDIMETHYLPYRAZINE326 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB020021 [61,256,258]
7.13	15707-34-3		FEMA number: 4437 FEMA GRAS number: 24 JECFA number: 2126 FL No: 14.170 CoE No:	2,3-Dimethyl-5-ethylpyrazine	CCc1cnc(C)c(C)n1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLDIMETHYLPYRAZINE523 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

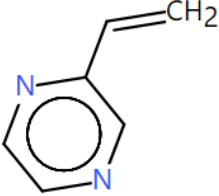
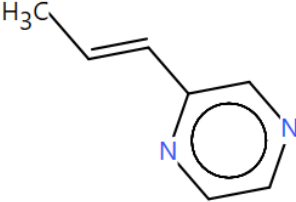
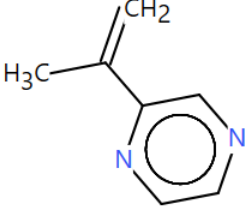
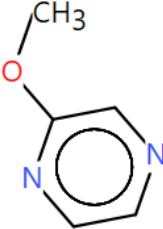
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7.14	17398-16-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Ethyl-3,5,6-trimethylpyrazine	<chem>CCc1nc(C)c(C)nc1C</chem>		[256]
7.15	18138-04-0	2420246	FEMA number: 3336 FEMA GRAS number: 6, 25 JECFA number: 777 FL No: 14.056 CoE No: 11303	2,3-Diethyl-5-methylpyrazine	<chem>CCc1ncc(C)nc1CC</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIETHYLMETHYLPYRAZINE235 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB021268 [63,256.258]
7.16	18138-05-1	6390341	FEMA number: 3916 FEMA GRAS number: 19 JECFA number: 779 FL No: 14.095 CoE No: 11305	3,5-Diethyl-2-methylpyrazine	<chem>CCc1cnc(C)c(CC)n1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIETHYLMETHYLPYRAZINE352 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

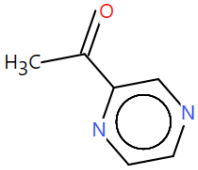
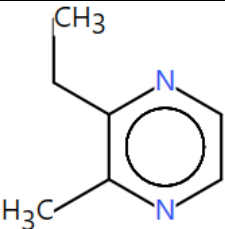
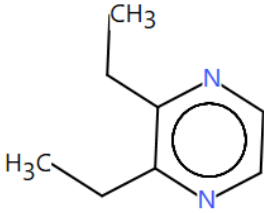
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7.17	18433-97-1	6060259	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,5-Dimethyl-3-propylpyrazine	<chem>CCCc1nc(C)cnc1C</chem>		[256]
7.18	29461-03-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-5-propylpyrazine	<chem>CCCc1cnc(C)cn1</chem>		https://foodb.ca/compounds/FDB019682 [65,256]
7.19	32350-16-6	2510067	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3,5-Dimethyl-2-propylpyrazine	<chem>CCCc1ncc(C)nc1C</chem>		https://foodb.ca/compounds/FDB019677 [66]
7.20	32736-91-7	6390928	FEMA number: 3915 FEMA GRAS number: 19 JECFA number: 778 FL No: 14.096 CoE No:11304	2,5- Diethyl-3-methylpyrazine	<chem>CCc1cnc(CC)c(C)n1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIETHYLMETHYLPYRAZINE253 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

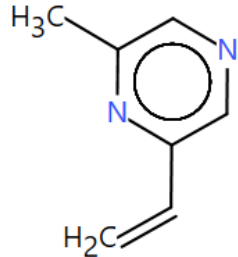
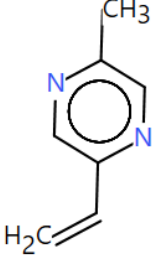
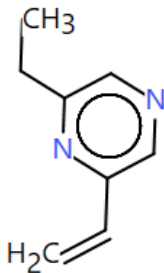
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7.21	34514-53-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,3-Diethyl-5,6-dimethylpyrazine	<chem>CCc1nc(C)c(C)nc1CC</chem>		https://foodb.ca/compounds/FDB019662 [68]
7.22	38028-82-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Triethylpyrazine	<chem>CCc1cnc(CC)c(CC)n1</chem>		[256]
7.23	38325-19-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Tetraethylpyrazine	<chem>CCc1nc(CC)c(CC)nc1CC</chem>		UNDER DEVELOPMENT
7.24	40790-20-3		FEMA number: FEMA GRAS number: JECFA number: FL No: 14.101 CoE No: 11318	2,5-Dimethyl-3-isopropylpyrazine	<chem>CC(C)c1nc(C)cnc1C</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [69]
7.25	61892-95-3	8653239	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(5-Methylpyrazin-2-yl)methanol	<chem>Cc1cnc(CO)cn1</chem>		UNDER DEVELOPMENT

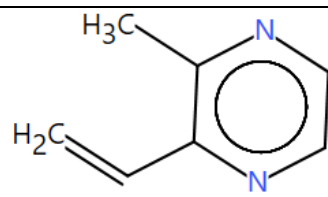
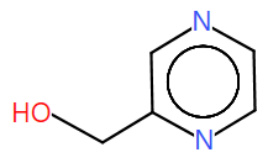
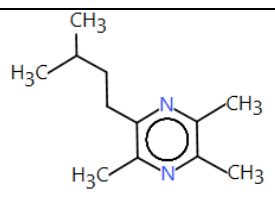
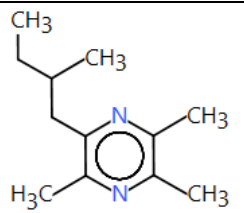
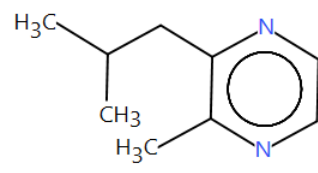
7.26	290-37-9	206027 6	FEMA number: 4015 FEMA GRAS number: 20 JECFA number: 951 FL No: 14.144 CoE No: 11363	Pyrazine	c1cncn1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB012468 [256- 258]
7.27	109-08-0	203645 8	FEMA number: 3309 FEMA GRAS number: 5, 25 JECFA number: 761 FL No: 14.027 CoE No: 2270	2-Methylpyrazine	Cc1cncn1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB011112 [11,144.256, 258]
7.28	13925-00-3	237691 5	FEMA number: 3281 FEMA GRAS number: 5 JECFA number: 762 FL No: 14.022 CoE No: 2213	2-Ethylpyrazine	CCc1cncn1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLPYRAZINE

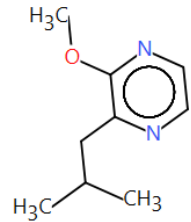
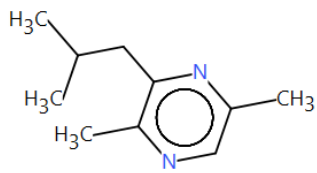
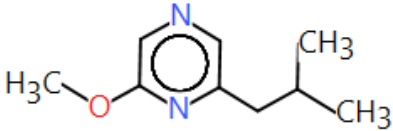
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7.29	18138-03-9	2420230	FEMA number: 3961 FEMA GRAS number: 19 JECFA number: 763 FL No: 14.142 CoE No: 11362	2-Propylpyrazine	CCCc1cncn1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PROPYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB021561 [76,256, 258]
7.30	29460-90-0	2496467	FEMA number: 3940 FEMA GRAS number: 19 JECFA number: 764 FL No: 14.123 CoE No: 11343	2-Isopropylpyrazine	CC(C)c1cncn1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ISOPROPYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [256, 258, 262]

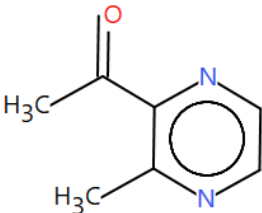
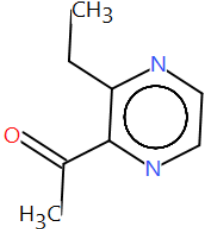
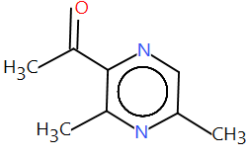
7.31	4177-16-6	2240452	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Vinylpyrazine	<chem>C=Cc1cnccn1</chem>		https://foodb.ca/compounds/FDB011429 [256, 263]
7.32	18217-80-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2--(trans-1-Propenyl)pyrazine	<chem>C\C=C\c1cnccn1</chem>		https://foodb.ca/compounds/FDB019817 [256, 264]
7.33	38713-41-6	6627207	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Isopropenylpyrazine	<chem>CC(=C)c1cnccn1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ISOPROPENYLPYRAZINE https://foodb.ca/compounds/FDB016129 [256, 265]
7.34	3149-28-8	2215798	FEMA number: 3302 FEMA GRAS number: 5 JECFA number: 787 FL No: 14.054 CoE No: 11347	2-Methoxypyrazine	<chem>COC1=NC=CN=C1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHOXYPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB011162 [256, 258, 266]

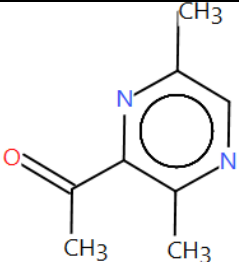
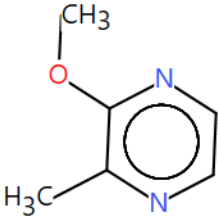
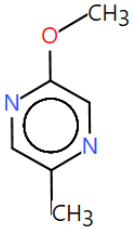
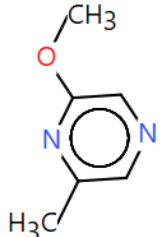
7.35	22047-25-2	2447535	FEMA number: 3126 FEMA GRAS number: 4 JECFA number: 784 FL No: 14.032 CoE No: 2286	2-Acetylpyrazine	CC(=O)C1=NC=CN=C1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [256, 258, 267]
7.36	15707-23-0	2397998	FEMA number: 3155 FEMA GRAS number: 4 JECFA number: 768 FL No: 14.006 CoE No: 548	2-Ethyl-3-methylpyrazine	CCC1=NC=CN=C1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLMETHYLPYRAZINE3 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB021162 [256, 258, 268]
7.37	15707-24-1	2398001	FEMA number: 3136 FEMA GRAS number: 4, 25 JECFA number: 771 FL No: 14.005 CoE No: 534	2,3-Diethylpyrazine	CCC1=NC=CN=C1CC		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIETHYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

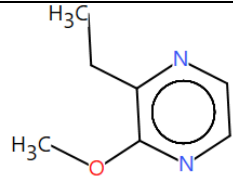
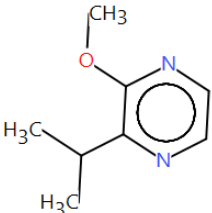
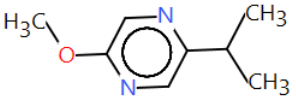
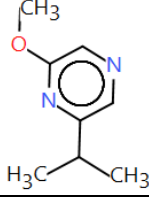
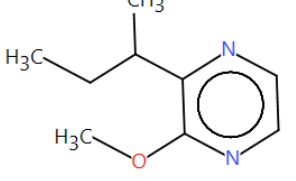
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7.38	13925-09-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-6-vinylpyrazine; 2-Ethenyl-6-methylpyrazine	<chem>CC1=CN=CC(=N1)C=C</chem>		https://foodb.ca/compounds/FDB004306 [256, 270]	
7.39	13925-08-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-5-vinylpyrazine; 2-Ethenyl-5-methylpyrazine	<chem>CC1=CN=C(C=N1)C=C</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLVINYLPYRAZINE https://foodb.ca/compounds/FDB016301 [256, 271]	
7.40	32736-90-6	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Ethyl-6-vinylpyrazine	<chem>CCC1=CN=CC(=N1)C=C</chem>		[256]	

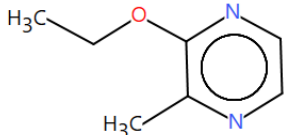
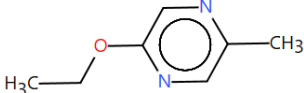
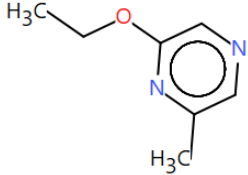
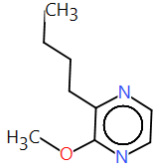
7.41	25058-19-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Vinyl-3-methylpyrazine; 2-Methyl-3-vinylpyrazine; 2-Ethenyl-3-methylpyrazine	<chem>CC1=NC=CN=C1C=C</chem>		[256]
7.42	6705-33-5	6916211	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Pyrazinylmethanol; (2-Hydroxymethyl)pyrazine	<chem>C1=CN=C(C=N1)CO</chem>		[256]
7.43	10132-43-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,3,5-Trimethyl-6-isopentylpyrazine; 2-Isopentyl-3,5,6-trimethylpyrazine; 2-Isoamyl-3,5,6-trimethylpyrazine	<chem>CC1=C(N=C(C(=N1)C)C)C</chem> <chem>CC(C)C</chem>		[256]
7.44	18482-80-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,3,5-Trimethyl-6-(2-methylbutyl)pyrazine; 2-(2-Methylbutyl)-3,5,6-trimethylpyrazine	<chem>CCC(C)CC1=NC(=C(N=C1)C)C</chem>		[256]
7.45	13925-06-9	2376936	FEMA number: 3133 FEMA GRAS number: 4 JECFA number: 773 FL No: 14.044 CoE No:	2-Isobutyl-3-methylpyrazine	<chem>CC1=NC=CN=C1CC(C)C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ISOBUTYLMETHYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R08

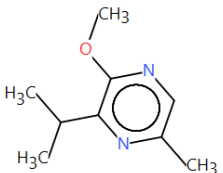
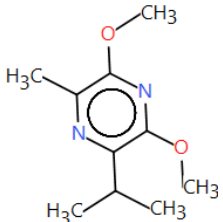
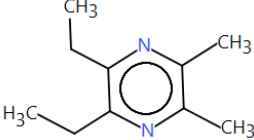
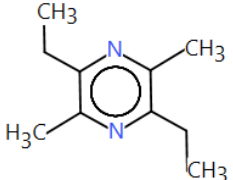
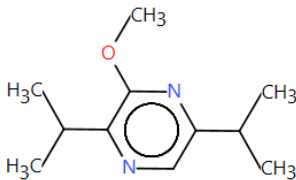
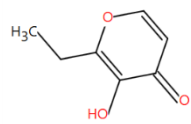
							72 https://foodb.ca/com pounds/FDB015028 [256, 258, 272]
7.46	24683-00-9	2464021	FEMA number: 3132 FEMA GRAS number: 4 JECFA number: 792 FL No: 14.043 CoE No: 11338	2-Methoxy-3-isobutylpyrazine; 2-Isobutyl-3-methoxypyrazine	<chem>CC(C)CC1=NC=CN=C1OC</chem>		https://www.hfpapp external.fda.gov/scripts/fdcc/index.cfm ?set=FoodSubstances&id=ISOBUTYLMETHOXYPIRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/com pounds/FDB008544 [256, 258, 273]
7.47	32736-94-0		FEMA number: 4100 FEMA GRAS number: 22 JECFA number: 2130 FL No: CoE No:	2-Isobutyl-3,6-dimethylpyrazine; 3-Isobutyl-2,5-dimethylpyrazine	<chem>CC1=CN=C(C(=N1)CC(C)C)C</chem>		https://www.hfpapp external.fda.gov/scripts/fdcc/index.cfm ?set=FoodSubstances&id=DIMETHYLISOBUTYLPYRAZINE36 [256, 274]
7.48	68039-33-8	2682510	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methoxy-6-(2-methylpropyl)pyrazine; 2-Isobutyl-6-methoxypyrazine	<chem>CC(C)CC1=CN=CC(=N1)OC</chem>		[256]

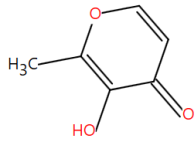
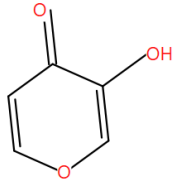
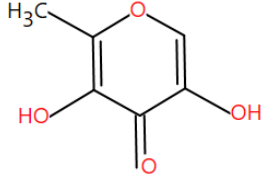
7.49	23787-80-6	2458898	FEMA number: 3964 FEMA GRAS number: 20 JECFA number: 950 FL No: 14.082 CoE No: 11296	2-Acetyl-3-methylpyrazine	<chem>CC1=NC=CN=C1C(=O)C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLMETHYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [256, 258, 275]
7.50	32974-92-8	2513162	FEMA number: 3250 FEMA GRAS number: 5 JECFA number: 785 FL No: 14.049 CoE No: 11293	2-Acetyl-3-ethylpyrazine	<chem>CCC1=NC=CN=C1C(=O)C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLETHYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [256, 258, 276]
7.51	54300-08-2	2590760	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.055 CoE No: 11294	2-Acetyl-3,5-dimethylpyrazine	<chem>CC1=CN=C(C(=N1)C)C(=O)C</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB019681 [258, 277]

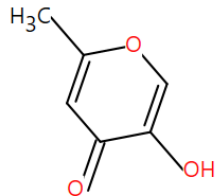
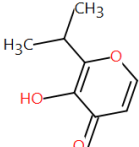
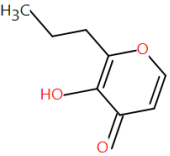
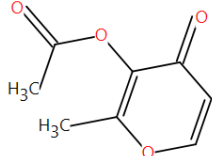
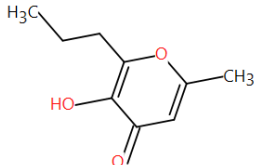
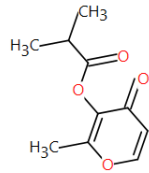
7.52	54300-09-3	2590776	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Acetyl-3,6-dimethylpyrazine	<chem>CC1=CN=C(C(=N1)C(=O)C)C</chem>		[258, 278]
7.53	2847-30-5	2206516	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.126 CoE No:	2-Methoxy-3-methylpyrazine	<chem>CC1=NC=CN=C1OC</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB008536 [258, 279]
7.54	2882-22-6	2207389	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methoxy-5-methylpyrazine	<chem>CC1=CN=C(C(=N1)OC)C</chem>		[258]
7.55	2882-21-5	2207373	FEMA number: FEMA GRAS number: JECFA number: 788 FL No: 14.025 CoE No: 2266	2-Methoxy-6-methylpyrazine	<chem>CC1=CN=CC(=N1)OC</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [258]

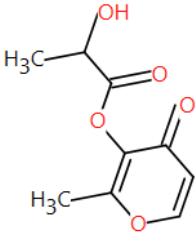
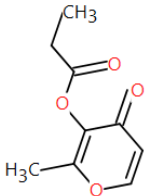
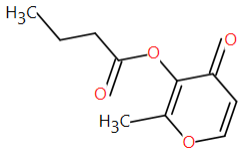
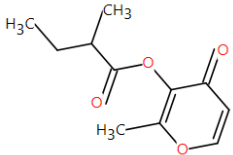
7.56	25680-58-4	2471840	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.112 CoE No:	2-Methoxy-3-ethylpyrazine; 3-Ethyl-2-methoxypyrazine	CCC1=NC=CN=C1OC		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB019741 [258, 280]
7.57	25773-40-4	2472561	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.057 CoE No:	2-Methoxy-3-isopropylpyrazine; 3-Isopropyl-2-methoxypyrazine; 2-Isopropyl-3-methoxypyrazine	CC(C)C1=NC=CN=C1OC		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB020065 [258, 281]
7.58	56891-99-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methoxy-5-isopropylpyrazine; 2-Isopropyl-5-methoxypyrazine	CC(C)C1=CN=C(C=N1)OC		https://foodb.ca/compounds/FDB019739 [258, 282]
7.59	68039-46-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methoxy-6-isopropylpyrazine; 2-Isopropyl-6-methoxypyrazine	CC(C)C1=CN=CC(=N1)OC		https://foodb.ca/compounds/FDB019740 [258, 283]
7.60	24168-70-5	2460509	FEMA number: 3433 FEMA GRAS number: 8, 25 JECFA number: 791 FL No: 14.062 CoE No: 11300	2-Methoxy-3-(1-methylpropyl)pyrazine; 2-sec-Butyl-3-methoxypyrazine	CCC(C)C1=NC=CN=C1OC		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHOXYMETHYLPROPYLPYRAZINE

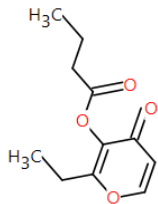
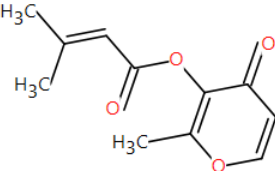
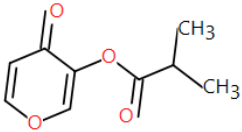
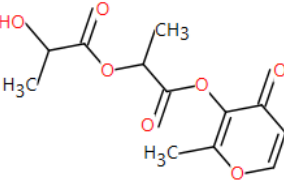
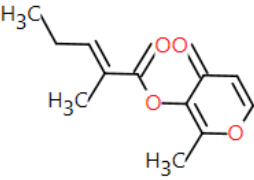
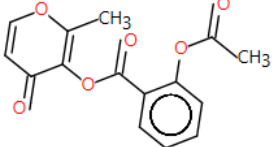
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7.61	32737-14-7	2511846	FEMA number: FEMA GRAS number: JECFA number: 793 FL No: 14.067 CoE No: 11921	2-Methyl-3-ethoxypyrazine; 2-Ethoxy-3-methylpyrazine	CCOC1=NC=CN=C1C		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [258, 259]
7.62	67845-34-5	2673092	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-5-ethoxypyrazine; 2-Ethoxy-5-methylpyrazine	CCOC1=NC=C(N=C1)C		[258]
7.63	53163-97-6	2584029	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-6-ethoxypyrazine; 2-Ethoxy-6-methylpyrazine	CCOC1=NC(=CN=C1)C		[258]
7.64			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Butyl-3-methoxypyrazine	CCCCC1=NC=CN=C1OC		[256]

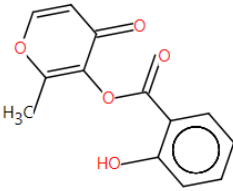
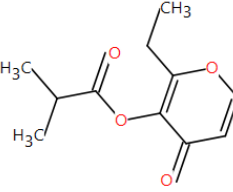
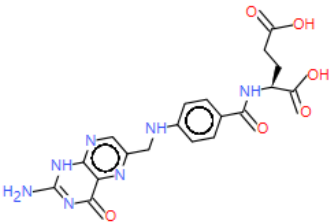
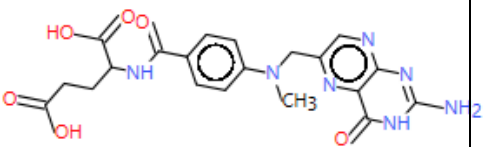
7.65	32021-41-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methoxy-3-isopropyl-5-methylpyrazine; 3-Isopropyl-2-methoxy-5-methylpyrazine	<chem>CC1=CN=C(C(=N1)C(C)C)OC</chem>		[256]
7.66	32021-42-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,6-Dimethoxy-3-isopropyl-5-methylpyrazine; 2-Isopropyl-3,5-dimethoxy-6-methylpyrazine	<chem>CC1=C(N=C(C(=N1)C(C)C)OC)OC</chem>		[256]
7.67	34514-53-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,3-Diethyl-5,6-dimethylpyrazine	<chem>CCC1=NC(=C(N=C1CC)C)C</chem>		https://foodb.ca/compounds/FDB019662 [256, 260]
7.68	18903-30-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,5-Diethyl-3,6-dimethylpyrazine	<chem>CCC1=C(N=C(C(=N1)C)CC)C</chem>		https://foodb.ca/compounds/FDB019661 [256, 261]
7.69	87386-79-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methoxy-3,6-diisobutylpyrazine; 2,5-Diisopropyl-3-methoxypyrazine	<chem>CC(C)C1=CN=C(C(=N1)OC)C(C)C</chem>		[256]
8	4940-11-8	2255825	FEMA number: 3487 FEMA GRAS number: 10 JECFA number: 1481 FL No: 07.047 CoE No: 692	2-Ethyl-3-hydroxy-4-pyrone	<chem>CCC1OC=CC(=O)C=1O</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLMA LTOL

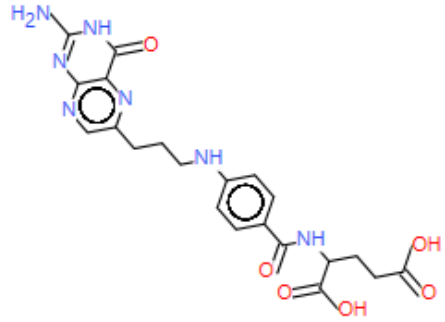
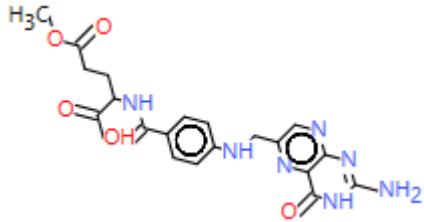
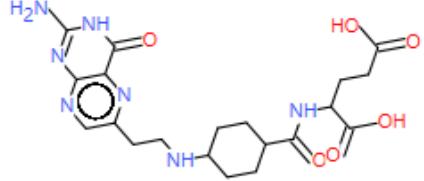
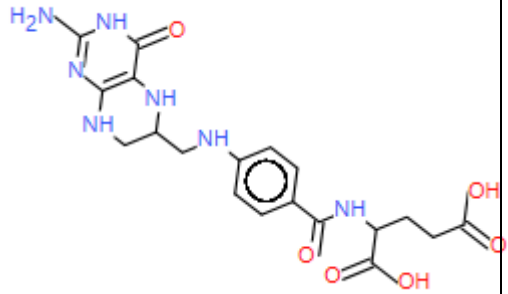
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9	118-71-8	2042718	FEMA number: 2656 FEMA GRAS number: 3 JECFA number: 1480 FL No: 07.014 CoE No: 148	2-Methyl-3-hydroxy-4-pyrone; Maltol	<chem>CC1OC=CC(=O)C=1O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=MALTOL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB002712 [9,142]
9.1	496-63-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Pyromeconic acid	<chem>OC1=COC=CC1=O</chem>		
9.2	1073-96-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Hydroxymaltol	<chem>CC1=C(C(=O)C(=CO1)O)O</chem>		https://foodb.ca/compounds/FDB010977 [70]

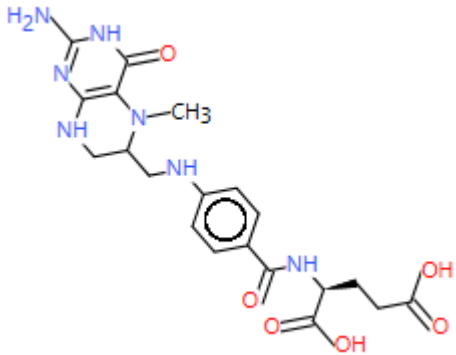
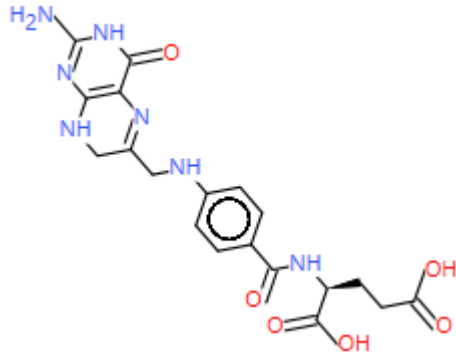
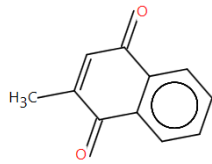
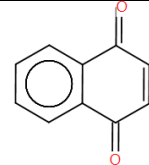
9.3	644-46-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Allomaltol	<chem>CC1=CC(=O)C(=CO1)O</chem>		UNDER DEVELOPMENT
9.4	40311-00-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Isopropylmaltol	<chem>CC(C)C1=C(C(=O)C=CO1)O</chem>		UNDER DEVELOPMENT
9.5	4940-16-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Hydroxy-2-propylpyran-4-one	<chem>CCCC1=C(C(=O)C=CO1)O</chem>		UNDER DEVELOPMENT
9.6	28787-36-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Maltol acetate	<chem>CC1=C(C(=O)C=CO1)OC(=O)C</chem>		UNDER DEVELOPMENT
9.7	40861-87-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4H-Pyran-4-one, 2-propyl-3-hydroxy-6-methyl-	<chem>CCCC1=C(C(=O)C=C(O1)C)O</chem>		UNDER DEVELOPMENT
9.8	65416-14-0	2657552	FEMA number: 3462 FEMA GRAS number: 9 JECFA number: 1482 FL No: 09.525 CoE No: 10739	Maltol isobutyrate; Maltol isobutyrate	<chem>CC1=C(C(=O)C=CO1)OC(=O)C(C)C</chem>		https://www.hfpapp external.fda.gov/ scripts/fdcc/index.cfm ?set=FoodSubstances &id=MALTYLISOBUTYRATE https://eur-

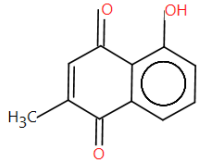
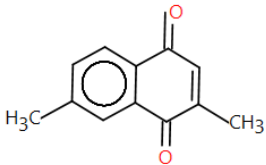
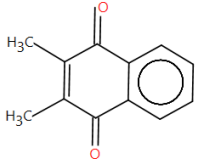
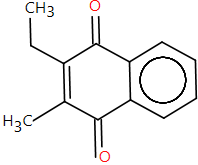
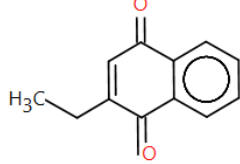
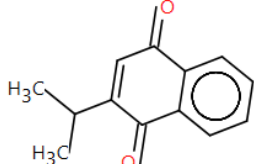
							lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [71]
9.9	67860-02-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Maltol lactate	<chem>CC(O)C(=O)OC1C(=O)C=COC=1C</chem>		UNDER DEVELOPMENT
9.10	68555-63-5		FEMA number: 3941 FEMA GRAS number: 19 JECFA number: 1483 FL No: CoE No:	Maltol propionate	<chem>CCC(=O)OC1C(=O)C=COC=1C</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=MALTOLPROPIONATE [72]
9.11	67860-01-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Maltol butyrate	<chem>CCCC(=O)OC1C(=O)C=COC=1C</chem>		UNDER DEVELOPMENT
9.12	85665-78-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-4-oxo-4H-pyran-3-yl 2-methylbutyrate	<chem>CCC(C)C(=O)OC1C(=O)C=COC=1C</chem>		UNDER DEVELOPMENT

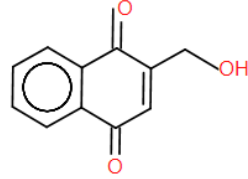
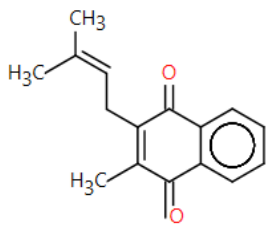
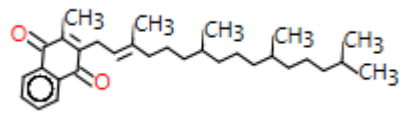
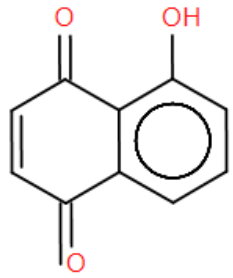
9.13	93805-72-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Ethyl-4-oxo-4H-pyran-3-yl butyrate	<chem>CCCC(=O)OC1C(=O)C=COC=1C</chem>		UNDER DEVELOPMENT
9.14	93917-69-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-4-oxo-4H-pyran-3-yl 3-methyl-2-butenate	<chem>CC(C)=CC(=O)OC1C(=O)C=COC=1C</chem>		UNDER DEVELOPMENT
9.15	94022-34-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Oxo-4H-pyran-3-yl isobutyrate	<chem>CC(C)C(=O)OC1=COC=CC1=O</chem>		UNDER DEVELOPMENT
9.16	94134-41-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Methyl-2-((2-methyl-4-oxo-4H-pyran-3-yl)oxy)-2-oxoethyl lactate	<chem>CC(O)C(=O)OC(C)C(=O)OC1C(=O)C=COC=1C</chem>		UNDER DEVELOPMENT
9.17	94199-66-3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(2-methyl-4-oxopyran-3-yl) (E)-2-methylpent-2-enoate	<chem>CCC=C(C)C(=O)OC1C(=O)C=COC=1C</chem>		UNDER DEVELOPMENT
9.18	147249-33-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Aspalatone	<chem>CC(=O)Oc1cccc1C(=O)OC1C(=O)C=COC=1C</chem>		UNDER DEVELOPMENT

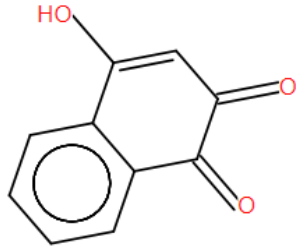
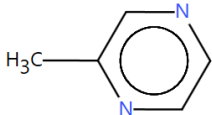
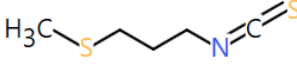
9.19	147249-34-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Salicylic acid maltol ester	<chem>CC1OC=CC(=O)C=1OC(=O)c1ccccc1O</chem>		UNDER DEVELOPMENT
9.20	852997-28-5		FEMA number: 4534 FEMA GRAS number: 24 JECFA number: FL No: CoE No:	Ethyl maltol isobutyrate	<chem>CCC1OC=CC(=O)C=1OC(=O)C(C)C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLMALTOLISOBUTYRATE [73]
10	59-30-3	2004190	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Folic acid; Folacin; (2S)-2-[(4-[[[(2-amino-4-oxo-1,4-dihydropteridin-6-yl)methyl]amino]phenyl]formamido]pentanedioic acid	<chem>NC1Nc2ncc(CNc3ccc(cc3)C(=O)N[C@@H](CCC(=O)C(O)=O)C(O)=O)nc2C(=O)N=1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FOLICACID https://foodb.ca/compounds/FDB014504 [8,141]
10.1	2410-93-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Methopterin	<chem>CN(Cc1cnc2N=C(N)NC(=O)c2n1)c1ccc(cc1)C(=O)NC(CCC(O)=O)C(O)=O</chem>		UNDER DEVELOPMENT

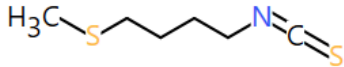
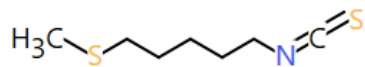
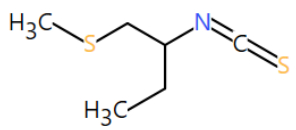
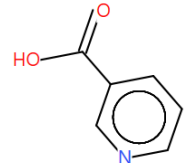
10.2			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Dihomofolic acid	<chem>NC1NC(=O)c2nc(CCCNc3ccc(cc3)C(=O)NC(CCC(=O)=O)C(O)=O)cnc2N=1</chem>		UNDER DEVELOPMENT
10.3	70114-87-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Folic acid 5-methyl ester	<chem>COC(=O)CCC(NC(=O)c1ccc(NCc2cnc3N=C(N)NC(=O)c3n2)cc1)C(O)=O</chem>		UNDER DEVELOPMENT
10.4			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1',2',3',4',5',6'-Hexahydrohomofolic acid	<chem>NC1NC(=O)c2nc(CCNC3CCC(CC3)C(=O)NC(CCC(O)=O)C(O)=O)cnc2N=1</chem>		UNDER DEVELOPMENT
10.5	135-16-0	2051811	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Tetrahydrofolic acid; Tetrahydrofolate	<chem>C1C(NC2=C(N1)N=C(NC2=O)N)CNC3=CC=C(C=C3)C(=O)NC(CCC(=O)O)C(=O)O</chem>		https://foodb.ca/compounds/FDB031192 [216]

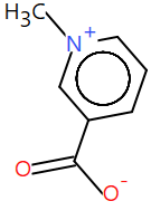
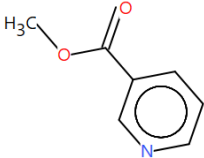
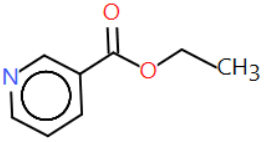
10.6	134-35-0	603809 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Levomefolic acid	<chem>CN1C(CNC2=C1C(=O)NC(=N2)N)CNC3=CC=C(C=C3)C(=O)NC(CCC(=O)O)C(=O)O</chem>		[315]
10.7	4033-27-6	609824 0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Dihydrofolic acid	<chem>C1C(=NC2=C(N1)N=C(NC2=O)N)CNC3=CC=C(C=C3)C(=O)NC(CCC(=O)O)C(=O)O</chem>		https://foodb.ca/compounds/FDB022395 [217]
11	58-27-5	200372 6	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Vitamin K3,1,4-Naphthalenedione, 2-methyl-; Menadione	<chem>CC1=CC(=O)c2ccccc2C1=O</chem>		https://foodb.ca/compounds/FDB000953 [10,143,285]
11.1	130-15-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,4-Naphthalenedione	<chem>O=C1C=CC(=O)c2ccccc12</chem>		UNDER DEVELOPMENT

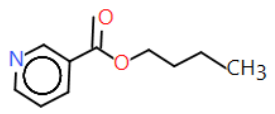
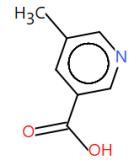
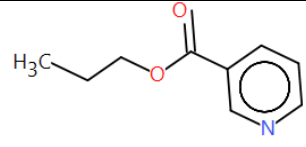
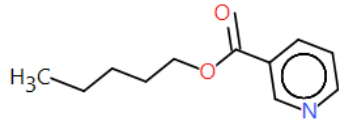
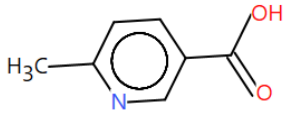
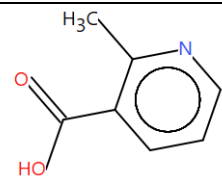
11.2	481-42-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Plumbagin	<chem>CC1=CC(=O)c2c(O)cccc2C1=O</chem>		https://foodb.ca/compounds/FDB005844 [74,286]
11.3	482-70-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Chimaphilin	<chem>Cc1ccc2C(=O)C=C(C)C(=O)c2c1</chem>		UNDER DEVELOPMENT
11.4	2197-57-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,3-Dimethyl-1,4-naphthoquinone	<chem>CC1C(=O)c2ccccc2C(=O)C=1C</chem>		UNDER DEVELOPMENT
11.5	2589-56-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,4-Naphthalenedione, 2-ethyl-3-methyl-	<chem>CCC1C(=O)c2ccccc2C(=O)C=1C</chem>		UNDER DEVELOPMENT
11.6	5409-32-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Ethyl-1,4-naphthoquinone	<chem>CCC1=CC(=O)c2ccccc2C1=O</chem>		UNDER DEVELOPMENT
11.7	20175-89-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,4-Naphthoquinone, 2-isopropyl-	<chem>CC(C)C1=CC(=O)c2ccccc2C1=O</chem>		UNDER DEVELOPMENT

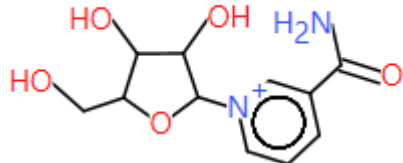
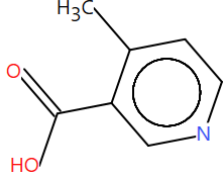
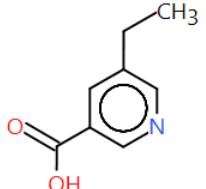
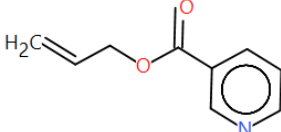
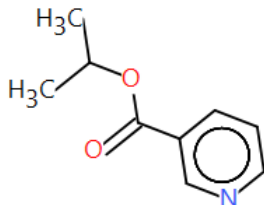
11.8	55700-10-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,4-Naphthalenedione ,2-(hydroxymethyl)-	<chem>OCC1=CC(=O)c2cccc2C1=O</chem>		UNDER DEVELOPMENT
11.9	957-78-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Vitamin K2(5); Menaquinone 1	<chem>CC1=C(C(=O)C2=CC=C(C=C2)C1=O)CC=C(C)C</chem>		[285]
11.10	84-80-0	201564 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Phylloquinone; Vitamin K1; Phytonadione	<chem>CC1=C(C(=O)C2=CC=C(C=C2)C1=O)C/C=C(\C)/CCC(C)CCCC(C)CCCC(C)C</chem>		[220, 285]
11.11	481-39-0	207567 5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Juglone; 5-Hydroxy-1,4-naphthoquinone	<chem>C1=CC2=C(C(=O)C=CC2=O)C(=C1)O</chem>		https://foodb.ca/compounds/FDB002708 [286, 287]

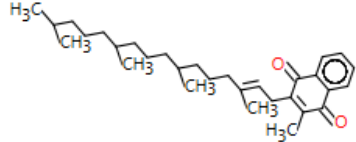
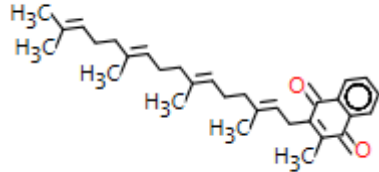
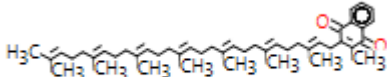
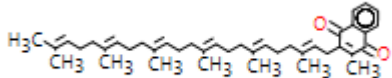
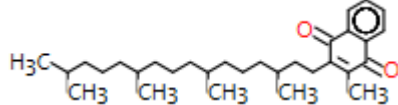
11.12	83-72-7	2014963	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Lawsone 2-Hydroxy-1,4-naphthoquinone	<chem>C1=CC=C2C(=C1)C(=CC(=O)C2=O)O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=ColorAdditives&id=Henna [286, 288]
12	109-08-0	2036458	FEMA number: 3309 FEMA GRAS number: 5, 25 JECFA number: 761 FL No: 14.027 CoE No: 2270	2-Methylpyrazine	<chem>Cc1cncn1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLPYRAZINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB01112 [11,144]
13	505-79-3	2080203	FEMA number: 3312 FEMA GRAS number: 5, 25 JECFA number: 1564 FL No: 12.030 CoE No: 2326	1-Isothiocyanto-3-(methylsulfanyl)propane	<chem>CSCCCN=C=S</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIOPROPYLISOTHIOCYANATE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB012744

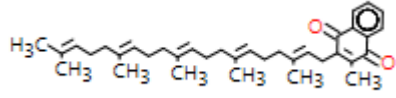
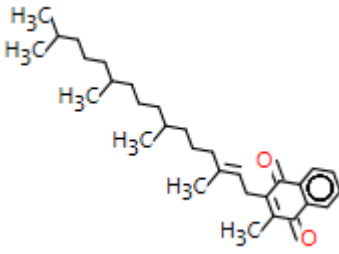
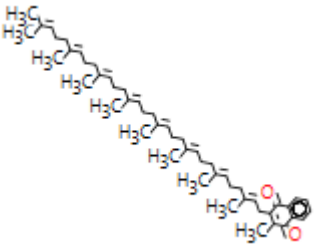
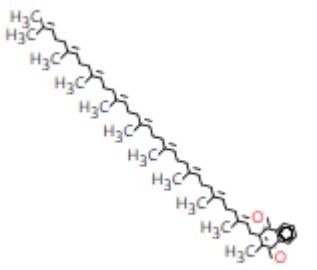
							[12,145]
13.1	4430-36-8		FEMA number: 4414 FEMA GRAS number: 23 JECFA number: 1892 FL No: 12.030 CoE No: 2326	Erucin	CSCCCCN=C=S		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTIOBUTYLISOTHIOCYANATE https://foodb.ca/compounds/FDB011906 [77]
13.2	4430-42-6		FEMA number: 4416 FEMA GRAS number: 23 JECFA number: 1896 FL No: CoE No:	Berteroin	CSCCCCCN=C=S		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTIOBUTYLISOTHIOCYANATE [78]
13.3				4-(Methylthio)-3-butyl isothiocyanate	CCC(CSC)N=C=S		UNDER DEVELOPMENT
14	59-67-6	2004410	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Carboxypyridine; Nicotinic acid; Niacin	OC(=O)c1ccnc1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=NIACIN [13,146]

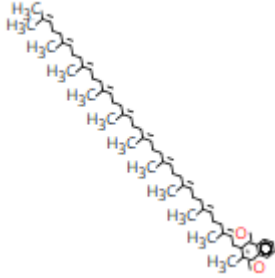
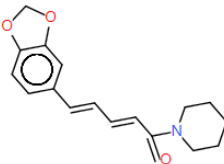
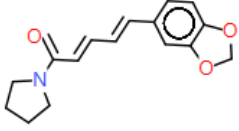
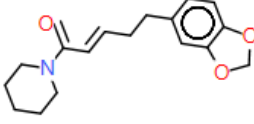
14.1	535-83-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Trigonelline	<chem>C[n+]1cccc(c1)C([O-])=O</chem>		https://foodb.ca/compounds/FDB002237 [79]
14.2	93-60-7	FEMA number: 3709 FEMA GRAS number: 13 JECFA number: 1320 FL No: 14.071 CoE No:	Methyl nicotinate	<chem>COC(=O)c1ccncc1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLNICOTINATE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB001015 [80]
14.3	614-18-6	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.110 CoE No:	Ethyl nicotinate	<chem>CCOC(=O)c1ccncc1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB001016 [81]

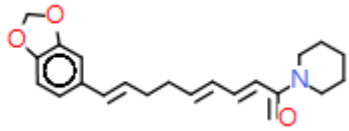
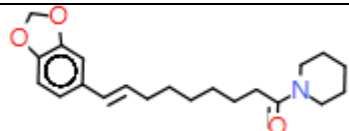
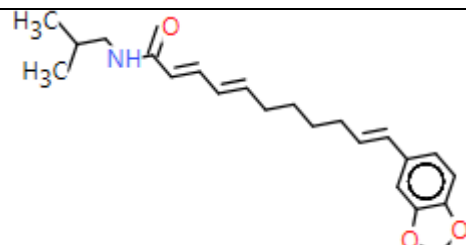
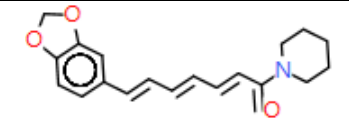
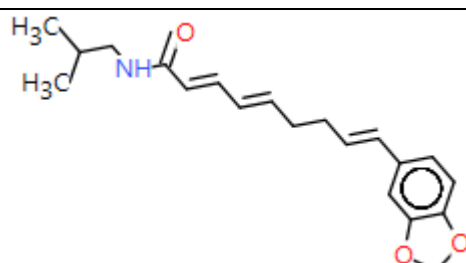
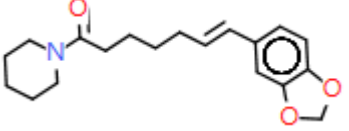
14.4	6938-06-3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Butyl nicotinate	CCCCOC(=O)c1ccnc1		UNDER DEVELOPMENT
14.5	3222-49-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Methylnicotinic acid	Cc1cnc(c1)C(O)=O		UNDER DEVELOPMENT
14.6	7681-15-4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Propyl nicotinate	CCCOC(=O)c1ccnc1		UNDER DEVELOPMENT
14.7	49558-04-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Amyl nicotinate	CCCCCOC(=O)c1ccnc1		UNDER DEVELOPMENT
14.8	3222-47-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	6-Methylnicotinic acid	Cc1ccc(en1)C(O)=O		UNDER DEVELOPMENT
14.9	3222-56-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methylnicotinic acid	Cc1ncccc1C(O)=O		UNDER DEVELOPMENT

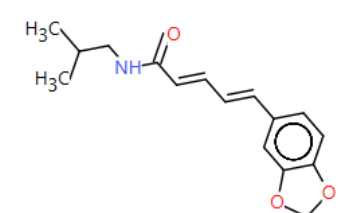
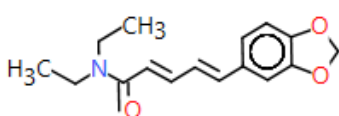
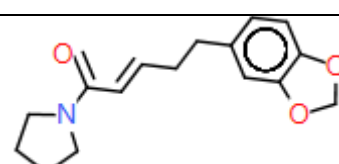
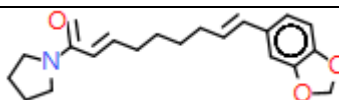
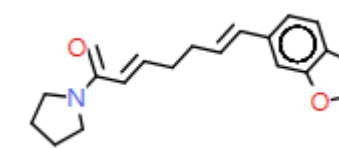
14.10	1341-23-7	8115110	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Nicotinamide riboside; <i>N</i> -Ribosylnicotinamide	<chem>C1=CC(=C[N+](=C1)C2C(C(C(O2)CO)O)C(=O)N</chem>		https://foodb.ca/compounds/FDB022281 [219]
14.11	3222-50-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Methylnicotinic acid	<chem>Cc1ccncc1C(=O)O</chem>		UNDER DEVELOPMENT
14.12	3222-53-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Ethylpyridine-3-carboxylic acid	<chem>CCc1cncc(c1)C(=O)O</chem>		UNDER DEVELOPMENT
14.13	25635-12-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Allyl nicotinate	<chem>C=CCOC(=O)c1ccncc1</chem>		UNDER DEVELOPMENT
14.14	553-60-6	2090431	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.120 CoE No:	Isopropyl nicotinate	<chem>CC(C)OC(=O)C1=CN=C</chem> <chem>C=C1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [307]

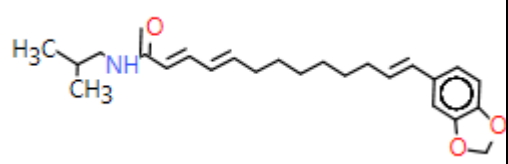
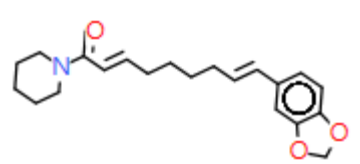
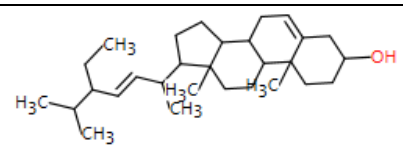
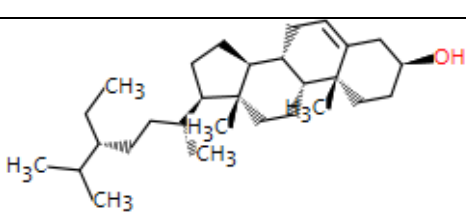
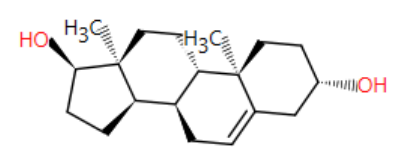
15	81818-54-4	2798339	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Vitamin K; 2-Methyl-3-(3,7,11,15-tetramethylhexadec-2-en-1-yl)naphthalene-1,4-dione	<chem>CC(C)CCCC(C)CCCC(C)CCCC(C)=CCC1=C(C)C(=O)c2ccccc2C1=O</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=VITAMINK https://foodb.ca/compounds/FDB012357 [14]
15.1	863-61-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Menaquinone 4	<chem>CC(C)=CCC\C(C)=C\CC\C(C)=C\CC\C(C)=C\CC1C(=O)c2ccccc2C(=O)C=1C</chem>		https://foodb.ca/compounds/FDB029792 [82,285,290]
15.2	2124-57-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Menaquinone 7	<chem>CC(C)=CCCC(C)=CCCC(C)=CCCC(C)=CCCC(C)=CC1C(=O)c2ccccc2C(=O)C=1C</chem>		UNDER DEVELOPMENT [83,285,290]
15.3	84-81-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Menaquinone 6	<chem>CC(C)=CCC\C(C)=C\CC\C(C)=C\CC\C(C)=C\CC\C(C)=C\CC1C(=O)c2ccccc2C(=O)C=1C</chem>		https://foodb.ca/compounds/FDB001310 [84,285,290]
15.4	64236-23-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2',3'-Dihydro-phytomenadione	<chem>CC(C)CCCC(C)CCCC(C)CCCC(C)CCC1C(=O)c2ccccc2C(=O)C=1C</chem>		https://foodb.ca/compounds/FDB013405 [85,285]

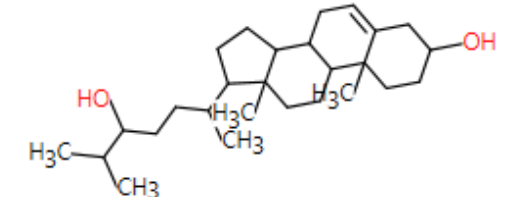
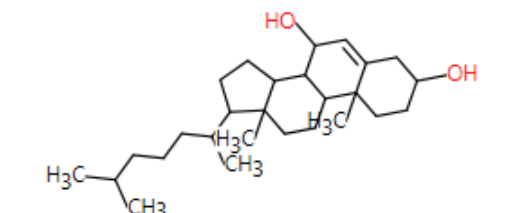
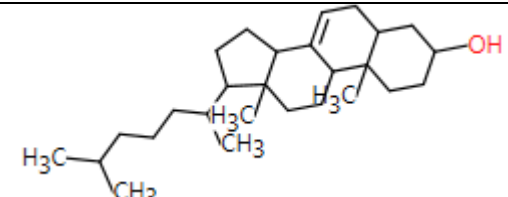
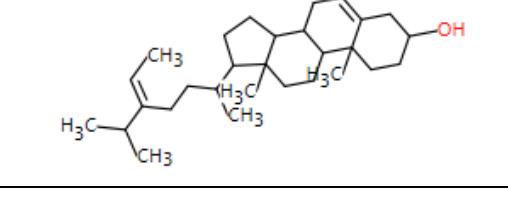
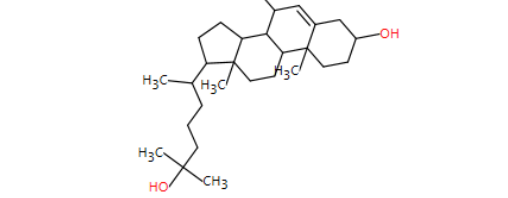
15.5	1182-68-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Menaquinone 5	<chem>CC(C)=CCCC(C)=CCCC(C)=CCCC(C)=CCCC(C)=CCC1C(=O)c2ccccc2C(=O)C=1C</chem>		[285, 290]
15.6	84-80-0	201564 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Phylloquinone; Vitamin K1	<chem>CC1=C(C(=O)C2=CC=C(C=C2C1=O)C/C=C(\C)/C/C=C(\C)/CCCC(C)CCCC(C)C</chem>		[220, 285]
15.7	523-38-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Menaquinone 8; Vitamin MK 8; Vitamin K2(40)	<chem>CC1=C(C(=O)C2=CC=C(C=C2C1=O)C/C=C(\C)/C/C=C(\C)/CC/C=C(\C)/C/C=C(\C)/CC/C=C(\C)/C/C=C(\C)/CC/C=C(\C)/C/C=C(\C)/C</chem>		[290]
15.8	523-39-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Menaquinone 9; Vitamin MK 9; Vitamin K2(45)	<chem>CC1=C(C(=O)C2=CC=C(C=C2C1=O)C/C=C(\C)/C/C=C(\C)/CC/C=C(\C)/C/C=C(\C)/CC/C=C(\C)/C/C=C(\C)/CC/C=C(\C)/C/C=C(\C)/CCC=C(C)C</chem>		[290]

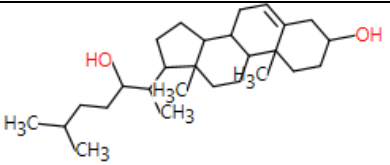
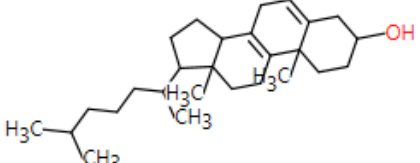
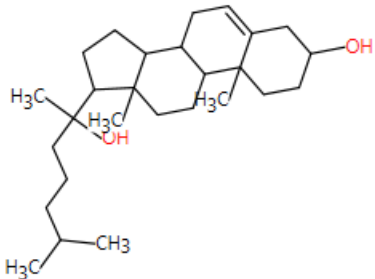
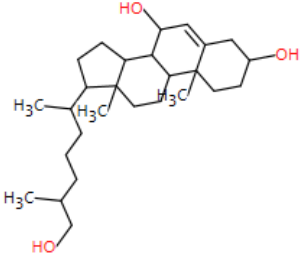
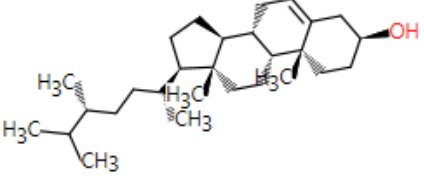
15.9	523-40-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Menaquinone 10; Vitamin MK 10; Vitamin K2(50)	<chem>CC1=C(C(=O)C2=CC=C C=C2C1=O)C/C=C(\C)/C C/C=C(\C)/CC/C=C(\C)/C C/C=C(\C)/CC/C=C(\C)/C C/C=C(\C)/CC/C=C(\C)/C C/C=C(\C)/CC/C=C(\C)/C CC=C(C)C</chem>		[290]
16	94-62-2	2023480	FEMA number: 2909 FEMA GRAS number: 3 JECFA number: 1600 FL No: 14.003 CoE No: 492	Piperine; Bioperine; 1- Piperoylpiperidi ne	<chem>O=C(C=CC=Cc1ccc2OC Oc2c1)N1CCCCC1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PIPERINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB000449 [15,147, 234]
16.1	25924-78-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Piperylene	<chem>O=C(\C=C\C=C\c1ccc2O COc2c1)N1CCCCC1</chem>		https://foodb.ca/compounds/FDB000444 [86]
16.2	23512-46-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Piperanine	<chem>O=C(C=CCCc1ccc2OCO c2c1)N1CCCCC1</chem>		https://foodb.ca/compounds/FDB012066 [87]

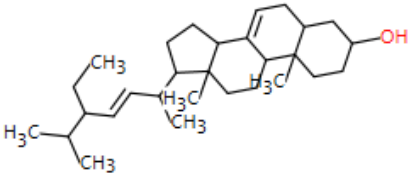
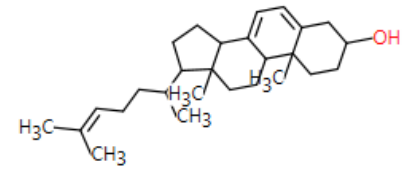
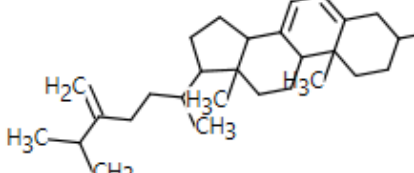
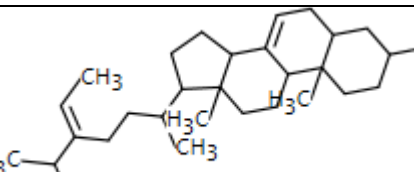
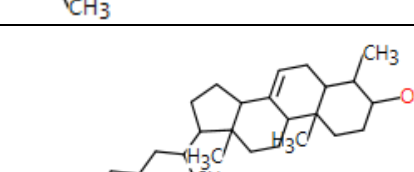
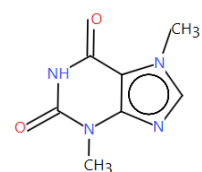
16.3	107584-38-3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Dehydropipernon aline	<chem>O=C(C=CC=CCCC=Cc1ccc2OCoc2c1)N1CCCCC1</chem>		https://foodb.ca/compounds/FDB020627 [88]
16.4	30505-89-6	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Piperolein B	<chem>O=C(CCCCCC=Cc1ccc2OCoc2c1)N1CCCCC1</chem>		https://foodb.ca/compounds/FDB002183 [89]
16.5	54794-74-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Pipercide	<chem>CC(C)CNC(=O)C=CC=C CCCCC=Cc1ccc2OCoc2c1</chem>		https://foodb.ca/compounds/FDB011487 [90]
16.6	583-34-6	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Piperettin	<chem>O=C(C=CC=CC=Cc1ccc2OCoc2c1)N1CCCCC1</chem>		https://foodb.ca/compounds/FDB012745 [91]
16.7	94079-67-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Retrofractamide A	<chem>CC(C)CNC(=O)C=CC=C CCC=Cc1ccc2OCoc2c1</chem>		https://foodb.ca/compounds/FDB011485 [92]
16.8	30505-92-1	FEMA number: FEMA GRAS number: JECFA number: FL No:	Piperolein A	<chem>O=C(CCCC\C=C\c1ccc2OCoc2c1)N1CCCCC1</chem>		https://foodb.ca/compounds/FDB002001 [93]

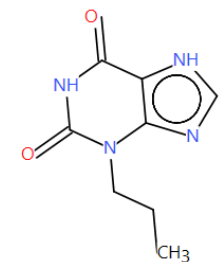
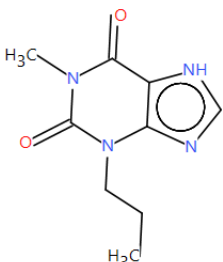
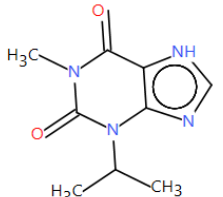
			CoE No:				
16.9	5950-12-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Piperlonguminine	<chem>CC(C)CNC(=O)C=CC=Cc1ccc2OCOc2c1</chem>		[291]
16.10	71256-99-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>N,N</i> -Diethyl-5-(3,4-methylenedioxyphenyl)-2,4-pentadienoic acid amide	<chem>CCN(CC)C(=O)C=CC=Cc1ccc2OCOc2c1</chem>		UNDER DEVELOPMENT
16.11	117137-65-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4,5-Dihydropiperlyne	<chem>O=C(C=CCCc1ccc2OCOc2c1)N1CCCC1</chem>		https://foodb.ca/compounds/FDB018269 [94]
16.12			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Brachyamide B	<chem>O=C(\C=C\CCCC\C=C\c1ccc2OCOc2c1)N1CCCC1</chem>		https://foodb.ca/compounds/FDB006604 [95,234]
16.13	112448-68-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(2 <i>E</i> ,6 <i>E</i>)-7-(1,3-benzodioxol-5-yl)-1-pyrrolidin-1-ylhepta-2,6-dien-1-one; Sarmentosine; 7-(3',4'-Methylenedioxy	<chem>C1CCN(C1)C(=O)/C=C/C/C=C/C2=CC3=C(C=C2)OCO3</chem>		[234, 235]

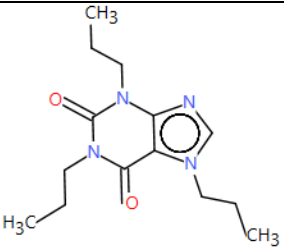
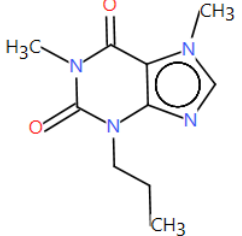
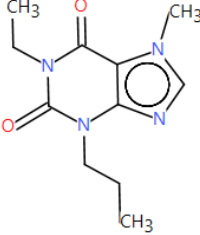
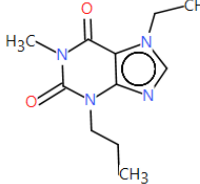
				henyl)-2 <i>E</i> ,6 <i>E</i> -heptadienoic acid pyrrolidylamide;			
16.14	55038-30-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Guineesine; Pipyahyine; (2 <i>E</i> ,4 <i>E</i> ,12 <i>E</i>)-13-(1,3-Benzodioxol-5-yl)- <i>N</i> -(2-methylpropyl)trideca-2,4,12-trienamide	<chem>CC(C)CNC(=O)/C=C/C=C/C/CCCCC/C=C/C1=CC2=C(C=C1)OCO2</chem>		https://foodb.ca/compounds/FDB006627 [234, 236]
16.15	88660-10-0	8047465	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Pipernonaline; (2 <i>E</i> ,8 <i>E</i>)-9-(1,3-Benzodioxol-5-yl)-1-piperidin-1-ylnona-2,8-dien-1-one	<chem>C1CCN(CC1)C(=O)/C=C/CCCC/C=C/C2=CC3=C(C=C2)OCO3</chem>		[297]
17	83-48-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(3-beta)-Stigmasta-5,22-dien-3-ol	<chem>CCC(C=CC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C3CCC12C)C(C)C</chem>		https://foodb.ca/compounds/FDB001936 [16,148]
17.1	83-46-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	beta-Sitosterol	<chem>CCC(CCC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C3CCC12C)C(C)C</chem>		https://foodb.ca/compounds/FDB012362 [96]
17.2	521-17-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Androstenediol	<chem>CC12CCC3C(CC=C4CC(O)CCC34C)C1CCC2O</chem>		https://foodb.ca/compounds/FDB023228 [97]

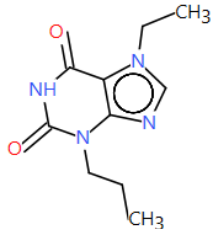
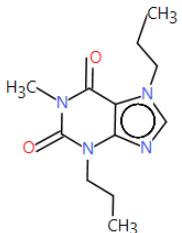
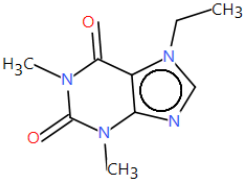
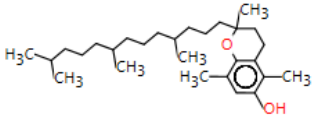
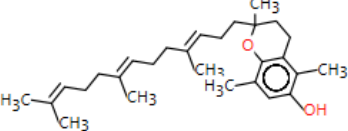
17.3	474-73-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cerebrosterol	<chem>CC(C)C(O)CCC(C)C1CC C2C3CC=C4CC(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB022611 [98]
17.4	566-27-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7beta-Hydroxycholesterol	<chem>CC(C)CCCC(C)C1CCC2 C3C(O)C=C4CC(O)CCC4 (C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB023832 [99]
17.5	80-99-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Lathosterol	<chem>CC(C)CCCC(C)C1CCC2 C1(CCC3C2=CCC4C3(C CC(C4)O)C)C</chem>		https://foodb.ca/compounds/FDB022463 [100]
17.6	481-14-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Isofucosterol	<chem>CC=C(CCC(C)C1CCC2C 3CC=C4CC(O)CCC4(C)C 3CCC12C)C(C)C</chem>		https://foodb.ca/compounds/FDB012493 [101]
17.7	64907-22-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7alpha,25-Dihydroxycholesterol	<chem>CC(CCCC(C)(C)O)C1CC C2C3C(O)C=C4CC(O)CC C4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB023874 [102]

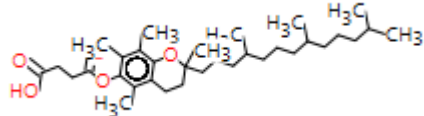
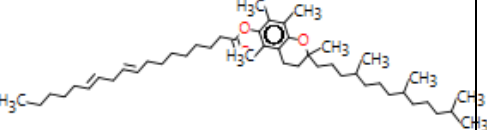
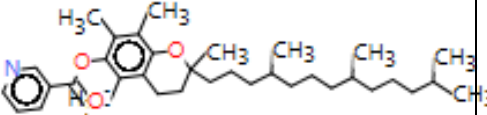
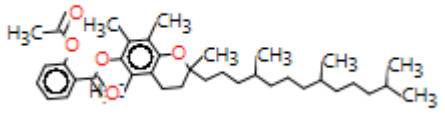
17.8	17954-98-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	22R-Hydroxycholesterol	<chem>CC(C)CCC(O)C(C)C1CC2C3CC=C4CC(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB023285 [103]
17.9	70741-38-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	8-Dehydrocholesterol	<chem>CC(C)CCCC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C=3CCC12C</chem>		https://foodb.ca/compounds/FDB022805 [104]
17.10		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	20a-Hydroxy cholesterol	<chem>CC(C)CCCC(C)(O)C1CC2C3CC=C4CC(O)CCC4(C)C3CCC12C</chem>		[105]
17.11	4725-24-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cholest-5-ene-3beta,7alpha,26-triol	<chem>CC(CO)CCCC(C)C1CCC2C3C(O)C=C4CC(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB023875 [106]
17.12	474-62-4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ergost-5-en-3.beta.-ol, (24R)-	<chem>CC(C)C(C)CCC(C)C1CC2C3CC=C4CC(O)CCC4(C)C3CCC12C</chem>		[107]

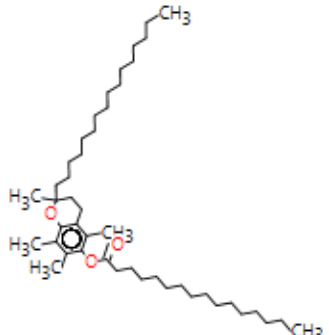
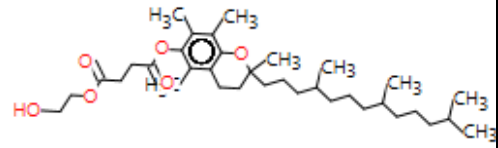
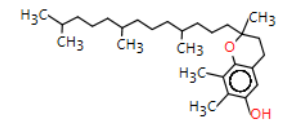
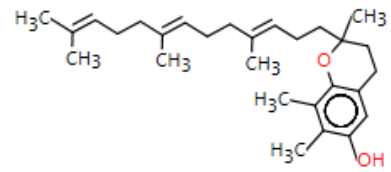
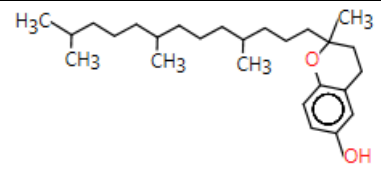
17.13	481-18-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	alpha-Spinasterol	<chem>CCC(C=CC(C)C1CCC2C3=CCC4CC(O)CCC4(C)C3CCC12C)C(C)C</chem>		https://foodb.ca/compounds/FDB003992 [108]
17.14	1715-86-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7-Dehydrodesmosterol	<chem>CC(CCC=C(C)C)C1CCC2C3=CC=C4CC(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB030623 [109]
17.15	23582-83-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Dehydroepisterol	<chem>CC(C)C(=C)CCC(C)C1CC2C3=CC=C4CC(O)CC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB024117 [110]
17.16	23290-26-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	delta7-Avenasterol	<chem>CC=C(CCC(C)C1CCC2C3=CCC4CC(O)CCC4(C)C3CCC12C)C(C)C</chem>		https://foodb.ca/compounds/FDB030685 [111]
17.17	481-25-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Lophenol	<chem>CC(C)CCCC(C)C1CCC2C3=CCC4C(C)C(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB012028 [112]
18	83-67-0	201494 2	FEMA number: 3591 FEMA GRAS number: 11 JECFA number: FL No: 16.032 CoE No:	Theobromine; 1H-Purine-2,6- dione,_3,7- dihydro-3,7- dimethyl-;	<chem>CN1C(=O)NC(=O)c2c1ncn2C</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=THEOBROMINE

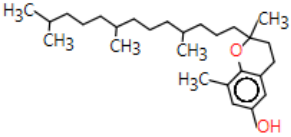
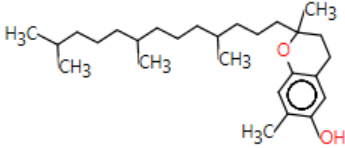
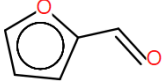
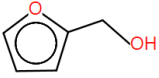
							https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB000455 [17,149]
18.1	41078-02-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Enprofylline	<chem>CCCN1C(=O)NC(=O)c2[nH]cnc12</chem>		UNDER DEVELOPMENT	
18.2	118024-67-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Methyl-3-propylxanthine	<chem>CCCN1C(=O)N(C)C(=O)c2[nH]cnc12</chem>		UNDER DEVELOPMENT	
18.3	102284-72-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Isopropyl-1-methyl xanthine	<chem>CC(C)N1C(=O)N(C)C(=O)c2[nH]cnc12</chem>		UNDER DEVELOPMENT	

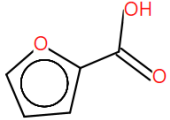
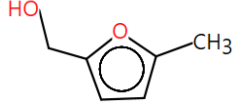
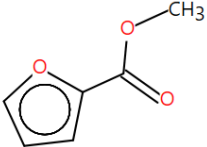
18.4			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,3,7- Tripropylxanthine	<chem>CCCN1C(=O)N(CCC)c2n cn(CCC)c2C1=O</chem>		UNDER DEVELOPMENT
18.5	7464-76- 8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,7-Dimethyl-3- propylpurine-2,6- dione	<chem>CCCN1C(=O)N(C)C(=O)c 2c1ncn2C</chem>		UNDER DEVELOPMENT
18.6			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Ethyl-7-methyl- 3-propyl-3,7- dihydro-purine- 2,6-dione	<chem>CCCN1C(=O)N(CC)C(=O)c2c1ncn2C</chem>		UNDER DEVELOPMENT
18.7			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7-Ethyl-1-methyl- 3-propyl-3,7- dihydro-purine- 2,6-dione	<chem>CCCN1C(=O)N(C)C(=O)c 2c1ncn2CC</chem>		UNDER DEVELOPMENT

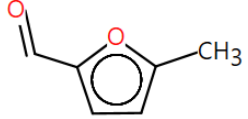
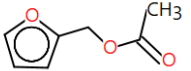
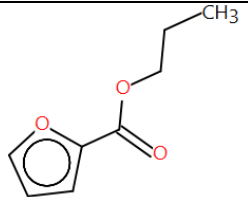
18.8			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7-Ethyl-3-propyl- 3,7-dihydro- purine-2,6-dione	<chem>CCCN1C(=O)NC(=O)c2c1ncn2CC</chem>		UNDER DEVELOPMENT
18.9	121875- 96-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1H-Purine-2,6- dione, 3,7- dihydro-1-methyl- 3,7-dipropyl-	<chem>CCCN1C(=O)N(C)C(=O)c2c1ncn2CCC</chem>		UNDER DEVELOPMENT
18.10	23043- 88-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7-Ethyl Theophylline	<chem>CCn1cnc2N(C)C(=O)N(C)C(=O)c12</chem>		UNDER DEVELOPMENT
19	1406-66- 2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Tocopherols	<chem>CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2c(C)c(O)cc(C)c2O1</chem>		https://foodb.ca/compounds/FDB002431 [18,150]
19.1	490-23-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	epsilon-Tokoferol	<chem>CC(C)=CCCC(C)=CCCC(C)=CCCC1(C)CCc2c(C)c(O)cc(C)c2O1</chem>		https://foodb.ca/compounds/FDB093543 [113]
19.2	58-95-7		FEMA number: FEMA GRAS number: JECFA number: FL No:	alpha-Tocopherol acetate	<chem>CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2c(C)c(OC(C)=O)c(C)c(C)c2O1</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TOCOPHE

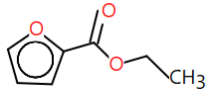
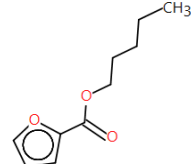
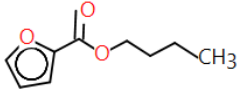
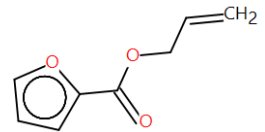
			CoE No:				ROLACETATE
							[114]
19.3	4345-03-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	D-alpha-Tocopherol succinate	<chem>CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2c(C)c(OC(=O)CCC(O)=O)c(C)c(C)c2O1</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ALPHATOCOPHEROLACID_SUCCINATE
19.4	36148-84-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	D-alpha-Tocopherol linoleate	<chem>CCCCC=CCC=CCCCCCCC(=O)Oc1c(C)c(C)c2OC(C)(CCCC(C)CCCC(C)CCCC(C)C)CCc2c1C</chem>		UNDER DEVELOPMENT
19.5	86362-36-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3,4-Dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-yl nicotinate	<chem>CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2c(C)c(OC(=O)c3ccncc3)c(C)c(C)c2O1</chem>		UNDER DEVELOPMENT
19.6	34617-32-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	α -Tocopheryl <i>o</i> -acetoxybenzoate	<chem>CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2c(C)c(OC(=O)c3ccccc3OC(C)=O)c(C)c(C)c2O1</chem>		UNDER DEVELOPMENT

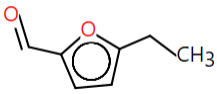
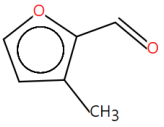
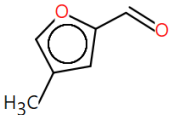
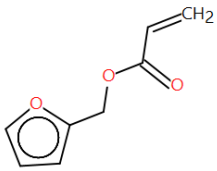
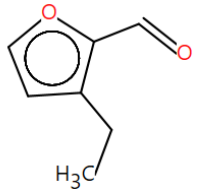
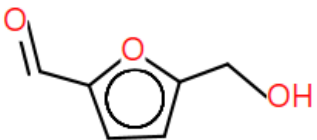
19.7	34562-29-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3,4-Dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-yl hexadecanoate	CCCCCCCCCCCCCCCCC1(CCC2=C(O1)C(=C(C(=C2C)OC(=O)CCCCCCC(C)C)C)C		UNDER DEVELOPMENT
19.8			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Tocophersolan	CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2c(C)c(OC(=O)CCC(=O)OCCO)c(C)c(C)c2O1		UNDER DEVELOPMENT
20	7616-22-0	2315234	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	γ -Tocopherol	CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2cc(O)c(C)c(C)c2O1		https://foodb.ca/compounds/FDB002431 [19]
20.1			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3,4-Dihydro-2,7,8-trimethyl-2-[(3E,7E)-4,8,12-trimethyl-3,7,11-tridecatrienyl]-2H-1-benzopyran-6-ol	CC(C)=CCCC(C)=CCCC(C)=CCCC1(C)CCc2cc(O)c(C)c(C)c2O1		https://foodb.ca/compounds/FDB001298 [115]
20.2			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	D-Desmethyltocopherol	CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2cc(O)ccc2O1		https://foodb.ca/compounds/FDB093542 [116]

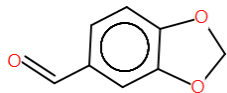
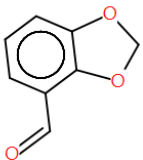
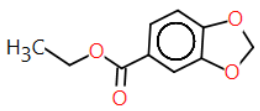
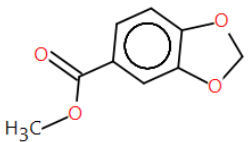
21	119-13-1	204299 0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,8-Dimethyl-2-(4,8,12-trimethyltridecyl)-3,4-dihydro-2H-chromen-6-ol; d-Tocopherol	<chem>CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2cc(O)c(C)c2O1</chem>		[20,151]
21.1	91-86-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	eta-Tocopherol	<chem>CC(C)CCCC(C)CCCC(C)CCCC1(C)CCc2cc(O)c(C)c2O1</chem>		UNDER DEVELOPMENT
22	98-01-1	202627 7	FEMA number: 2489 FEMA GRAS number: 3 JECFA number: 450 FL No: 13.018 CoE No: 2014	Furfural	<chem>O=Cc1ccco1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURFURAL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB004219 [21,153]
22.1	98-00-0		FEMA number: 2491 FEMA GRAS number: 3, 25 JECFA number: 451 FL No: 13.019 CoE No: 2023	Furfuryl alcohol	<chem>C1=COC(=C1)CO</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURFURYLALCOHOL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

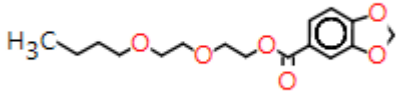
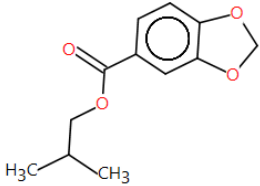
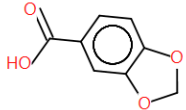
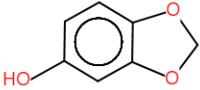
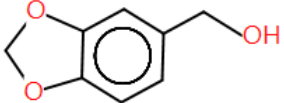
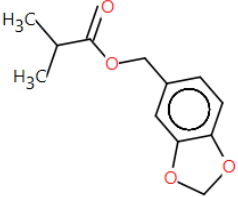
							i=CELEX:32012R0872 https://foodb.ca/compounds/FDB012558 [117]
22.2	88-14-2		FEMA number: FEMA GRAS number: JECFA number: FL No: 13.136 CoE No: 10098	2-Furoic acid	<chem>OC(=O)c1ccco1</chem>		[118] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
22.3	3857-25-8		FEMA number: 4544 FEMA GRAS number: 24 JECFA number: 2099 FL No: CoE No:	5-Methylfurfuryl alcohol	<chem>Cc1ccc(CO)o1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLURFURYLALCOHOL [119]
22.4	611-13-2		FEMA number: 2703 FEMA GRAS number: 3, 25 JECFA number: 746 FL No: 13.002 CoE No: 358	Methyl 2-furoate	<chem>COC(=O)c1ccco1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLUROATE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB000952 [120,154]

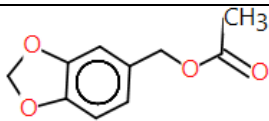
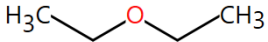
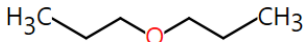
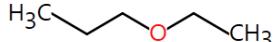
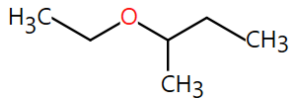
22.5	620-02-0	<p>FEMA number: 2702 FEMA GRAS number: 3, 25 JECFA number: 745 FL No: 13.001 CoE No: 119</p>	5-Methylfurfural	<chem>Cc1ccc(C=O)o1</chem>		<p>https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLURFURAL</p> <p>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872</p> <p>https://foodb.ca/compounds/FDB010991</p> <p>[121]</p>
22.6	623-17-6	<p>FEMA number: 2490 FEMA GRAS number: 3, 25 JECFA number: 739 FL No: 13.128 CoE No: 2065</p>	Furfuryl acetate	<chem>CC(=O)OCc1ccco1</chem>		<p>https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURFURYLACETATE</p> <p>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872</p> <p>https://foodb.ca/compounds/FDB012559</p> <p>[122]</p>
22.7	615-10-1	<p>FEMA number: 2946 FEMA GRAS number: 3 JECFA number: 747 FL No: 13.003 CoE No: 359</p>	Propyl 2-furoate	<chem>CCCOC(=O)c1ccco1</chem>		<p>https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PROPYLFUROATE</p> <p>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872</p>

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							[123]
22.8	614-99-3	FEMA number: FEMA GRAS number: JECFA number: FL No: 13.122 CoE No: 10588	Ethyl 2-furoate	CCOC(=O)c1ccco1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872	[124]
22.9	1334-82-3	FEMA number: 2072 FEMA GRAS number: 3 JECFA number: 748 FL No: 13.025 CoE No: 2109	Amyl 2-furoate	CCCCCOC(=O)c1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=AMYLFUROATE	[125]
22.10	583-33-5	FEMA number: FEMA GRAS number: JECFA number: FL No: 13.102 CoE No:	Butyl 2-furoate	CCCCOC(=O)c1ccco1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872	[126]
22.11	4208-49-5	FEMA number: 2030 FEMA GRAS number: 3 JECFA number: 21 FL No: 13.004 CoE No: 360	Allyl 2-furoate	C=CCOC(=O)c1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ALLYLFUROATE	https://eur-lex.europa.eu/legal-

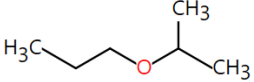
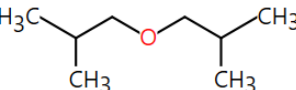
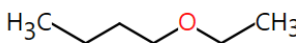
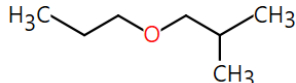
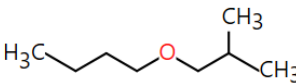
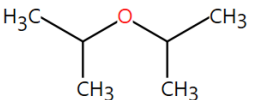
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							[127]
22.12	23074-10-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Ethyl-2-furaldehyde	<chem>CCc1ccc(C=O)o1</chem>		UNDER DEVELOPMENT
22.13	33342-48-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Methyl-2-furaldehyde	<chem>Cc1ccoc1C=O</chem>		UNDER DEVELOPMENT
22.14	33342-49-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-methylfuran-2-carbaldehyde	<chem>Cc1coc(C=O)c1</chem>		UNDER DEVELOPMENT
22.15	10525-17-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Furfuryl acrylate	<chem>C=CC(=O)OCc1ccco1</chem>		UNDER DEVELOPMENT
22.16	1781941-14-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ethylfurfural	<chem>CCc1ccoc1C=O</chem>		UNDER DEVELOPMENT
22.17	67-47-0	2006549	FEMA number: FEMA GRAS number: JECFA number: FL No: 13.139	5-Hydroxymethylfurfural	<chem>C1=C(OC(=C1)C=O)CO</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

			CoE No: 11112				72 https://foodb.ca/compounds/FDB0127 [308]
23	120-57-0	204409 7	FEMA number: 2911 FEMA GRAS number: 3, 25 JECFA number: 896 FL No: 05.016 CoE No: 104	Piperonal	<chem>O=Cc1ccc2OCOc2c1</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PIPERONAL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB010553 [22]
23.1	7797-83-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,3-Benzodioxole-4-carbaldehyde	<chem>O=Cc1ccc2OCOc2c1</chem>		UNDER DEVELOPMENT
23.2	6951-08-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ethyl benzo[d][1,3]dioxole-5-carboxylate	<chem>CCOC(=O)c1ccc2OCOc2c1</chem>		UNDER DEVELOPMENT
23.3	326-56-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Methyl piperonylate	<chem>COC(=O)c1ccc2OCOc2c1</chem>		UNDER DEVELOPMENT

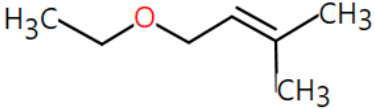
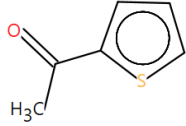
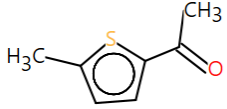
23.4	136-63-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Bucarpolate	<chem>CCCCOCCOCCOC(=O)c1ccc2OCoc2c1</chem>		UNDER DEVELOPMENT
23.5	74098-26-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Isobutyl piperonylate	<chem>CC(C)COC(=O)c1ccc2OCoc2c1</chem>		UNDER DEVELOPMENT
23.6	94-53-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Piperonylic acid	<chem>OC(=O)c1ccc2OCoc2c1</chem>		UNDER DEVELOPMENT
23.7	533-31-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Sesamol	<chem>Oc1ccc2OCoc2c1</chem>		https://foodb.ca/compounds/FDB011975 [128]
23.8	495-76-1	207808 4	FEMA number: FEMA GRAS number: JECFA number: FL No: 02.205 CoE No: 10306	Piperonyl alcohol	<chem>C1OC2=C(O1)C=C(C=C2)CO</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [309]
23.9	5461-08-5	226745 3	FEMA number: 2913 FEMA GRAS number: 3, 25 JECFA number: 895 FL No: 09.430 CoE No: 305	Piperonyl isobutyrate; Piperonyl 2- methylpropanoate	<chem>CC(C)C(=O)OCC1=CC2=C(C=C1)OCO2</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PIPERONYLISOBUTYRATE https://eur-lex.europa.eu/legal-

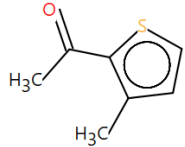
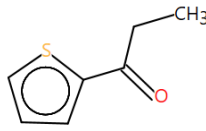
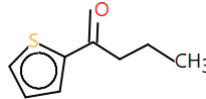
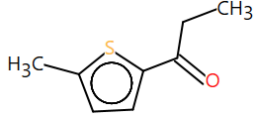
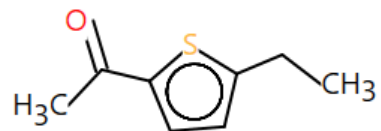
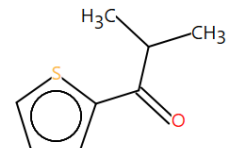
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23.10	326-61-4	2063125	FEMA number: 2912 FEMA GRAS number: 3, 25 JECFA number: 894 FL No: 09.220 CoE No: 2068	Piperonyl acetate	<chem>CC(=O)OCC1=CC2=C(C=C1)OCO2</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PIPERONYLACETATE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
							[311]
24	60-29-7	2004672	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Diethyl ether	<chem>CCOCC</chem>		https://foodb.ca/com pounds/FDB004482
							[23]
24.1	111-43-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Dipropyl ether	<chem>CCCOCCC</chem>		UNDER DEVELOPMENT
24.2	628-32-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ethyl propyl ether	<chem>CCCOCC</chem>		UNDER DEVELOPMENT
24.3	2679-87-0		FEMA number: 3131 FEMA GRAS number: 4	<i>sec</i> -Butyl ethyl ether	<chem>CCOC(C)CC</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm

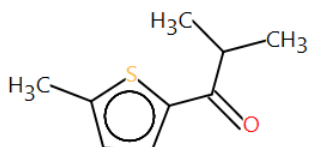
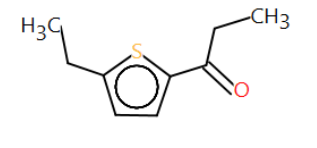
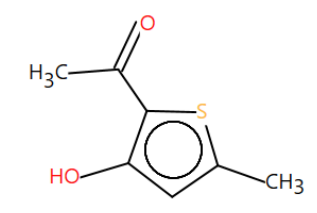
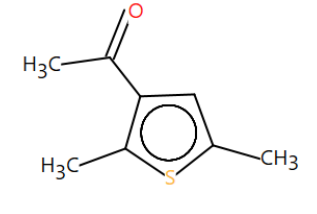
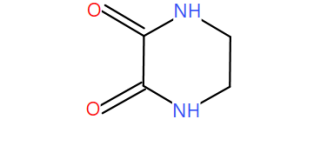
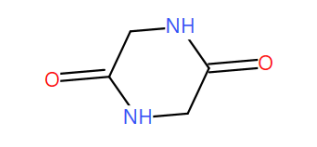
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24.4	3073-92-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Butyl propyl ether	CCCCOCCC		UNDER DEVELOPMENT
24.5	142-96-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Dibutyl ether	CCCCOCCCC		UNDER DEVELOPMENT
24.6	6863-58-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Di- <i>sec</i> -butyl ether	CCC(C)OC(C)CC		UNDER DEVELOPMENT
24.7	1860-27-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-(1-Methylethoxy) butane	CCCCOC(C)C		UNDER DEVELOPMENT
24.8	625-54-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ethyl isopropyl ether	CCOC(C)C		UNDER DEVELOPMENT

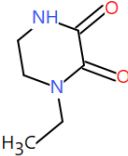
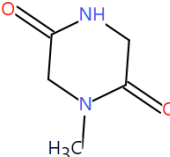
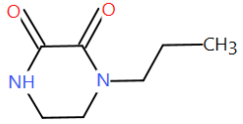
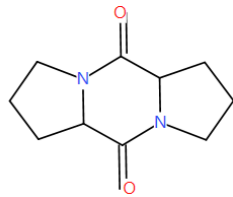
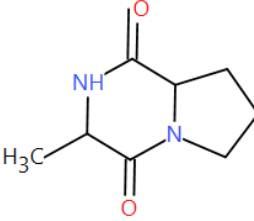
24.9	627-08-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Isopropyl propyl ether	CCCOC(C)C		UNDER DEVELOPMENT
24.10	628-55-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Diisobutyl ether	CC(C)COCC(C)C		UNDER DEVELOPMENT
24.11	628-81-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Butyl ethyl ether	CCCCOCC		UNDER DEVELOPMENT
24.12	15268-49-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-1-propoxy-propane	CCCOCC(C)C		UNDER DEVELOPMENT
24.13	17071-47-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-(2-Methylpropoxy)butane	CCCCOCC(C)C		UNDER DEVELOPMENT
24.14	108-20-3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Diisopropyl ether	CC(C)OC(C)C		https://apps.who.int/food-additives-contaminants-jecfa-database/Home/Chemical/2123

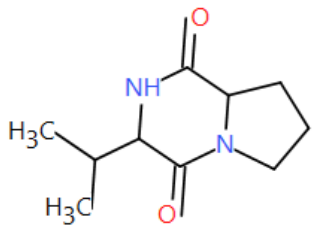
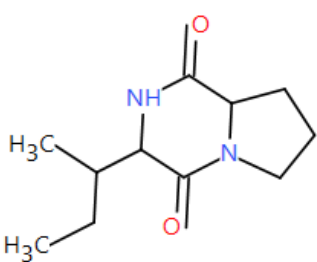
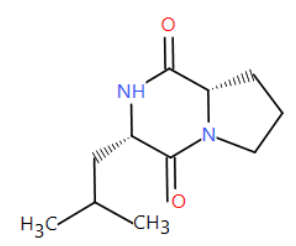
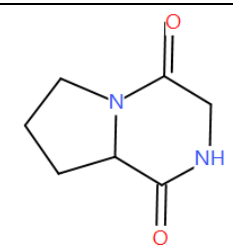
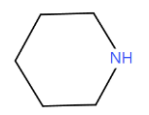
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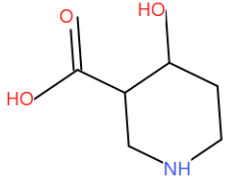
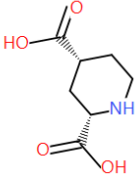
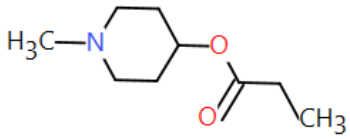
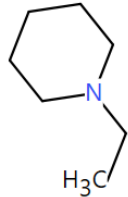
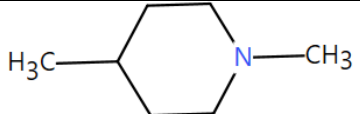
24.15	22094-00-4	606931 4	FEMA number: 3777 FEMA GRAS number: 16 JECFA number: 1232 FL No: 03.019 CoE No:	Prenyl ethyl ether	CCOCC=C(C)C		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHOXYMETHYLTHIOPHENE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [313]
25	88-15-3	201804 6	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.040 CoE No: 11728	2-Acetyl thiophene	CC(=O)c1cccs1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/com pounds/FDB011134 [24,154]
25.1	13679-74-8		FEMA number: 4643 FEMA GRAS number: 24 JECFA number: 2107 FL No: CoE No:	2-Acetyl-5-methylthiophene	CC(=O)c1ccc(C)s1		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLMETHYLTHIOPHENE https://foodb.ca/com pounds/FDB011131 [131, 295]

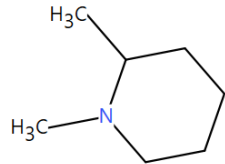
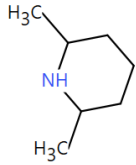
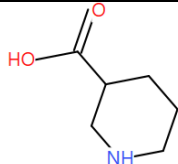
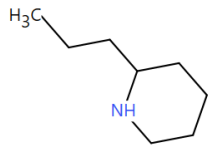
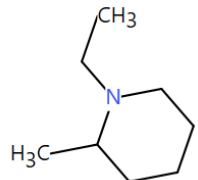
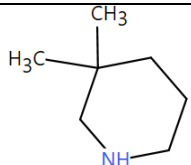
25.2	13679-72-6	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Acetyl-3-methylthiophene	<chem>CC(=O)c1sccc1C</chem>		UNDER DEVELOPMENT
25.3	13679-75-9	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.097 CoE No: 11635	2-Propionylthiophene	<chem>CCC(=O)c1cccs1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [132]
25.4	5333-83-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-n-Butyrylthiophene	<chem>CCCC(=O)c1cccs1</chem>		UNDER DEVELOPMENT
25.5	59303-13-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-5-propionylthiophene	<chem>CCC(=O)c1ccc(C)s1</chem>		UNDER DEVELOPMENT
25.6	18761-46-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-(5-Ethylthiophen-2-yl)ethanone	<chem>CCc1ccc(s1)C(C)=O</chem>		UNDER DEVELOPMENT
25.7	36448-60-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-1-(thiophen-2-yl)propan-1-one	<chem>CC(C)C(=O)c1cccs1</chem>		UNDER DEVELOPMENT

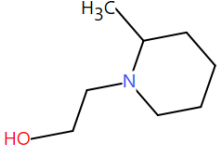
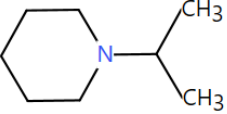
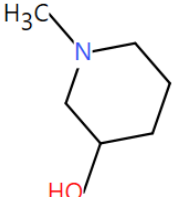
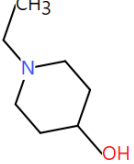
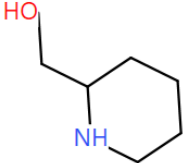
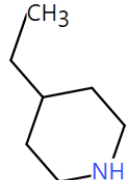
25.8	94199-67-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl-1-(5-methyl-2-thienyl)propan-1-one	<chem>CC(C)C(=O)c1ccc(C)s1</chem>		UNDER DEVELOPMENT
25.9	108223-66-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Ethyl-2-propiothienone	<chem>CCC(=O)c1ccc(CC)s1</chem>		UNDER DEVELOPMENT
25.10	133860-42-1		FEMA number: 4142 FEMA GRAS number: 22 JECFA number: 1750 FL No: CoE No:	1-(3-Hydroxy-5-methyl-2-thienyl)ethanone	<chem>CC(=O)c1sc(C)cc1O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HYDROXYMETHYLTHIENYLETHANONE [133, 295]
25.11	2530-10-1	2197795	FEMA number: FEMA GRAS number: JECFA number: 1051 FL No: 15.024 CoE No: 11603	3-Acetyl-2,5-dimethylthiophene	<chem>CC1=CC(=C(S1)C)C(=O)C</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [295, 296]
26	13092-86-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,3-Diketopiperazine	<chem>O=C1NCCNC1=O</chem>		[25]
26.1	106-57-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,5-Piperazinedione	<chem>O=C1CNC(=O)CN1</chem>		UNDER DEVELOPMENT

26.2	59702-31-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Ethylpiperazine-2,3-dione	CCN1CCNC(=O)C1=O		UNDER DEVELOPMENT
26.3	5625-52-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Methylpiperazine-2,5-dione	CN1CC(=O)NCC1=O		UNDER DEVELOPMENT
26.4	59702-32-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Propyl-2,3-piperazinedione	CCCN1CCNC(=O)C1=O		UNDER DEVELOPMENT
26.5	6708-06-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cyclo(Pro-Pro); Proline anhydride; Octahydro-5H,10H-dipyrrolo[1,2-a:1',2'-d]pyrazine-5,10-dione	C1CC2C(=O)N3CCCC3C(=O)N2C1		[299]
26.6	65556-33-4	9896502	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cyclo(Pro-Ala); Cyclo-Ala-Pro-diketopiperazine; 3-Methylhexahydro pyrrolo[1,2-a]pyrazine-1,4-dione;	CC1C(=O)N2CCCC2C(=O)N1		https://foodb.ca/compounds/FDB010658 [299, 300]

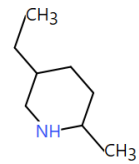

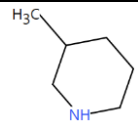
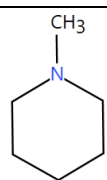
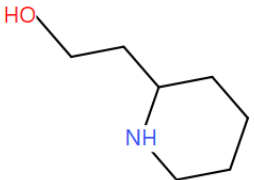
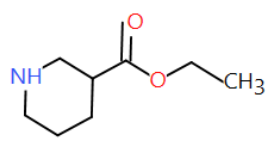
26.7	5654-87-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cyclo(Pro-Val); 3-isopropyl- hexahydropyrrolo [1,2-a]pyrazine- 1,4-dione	<chem>CC(C)C1C(=O)N2CCCC2C(=O)N1</chem>		[299]
26.8	58917-56-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cyclo(Pro-Ile); Cyclo-Ile-Pro- diketopiperazine; 3-butan-2-yl- 2,3,6,7,8,8a- hexahydropyrrolo [1,2-a]pyrazine- 1,4-dione	<chem>CCC(C)C1C(=O)N2CCCC2C(=O)N1</chem>		[299]
26.9	5654-86-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cyclo(Pro-Leu); 3- Isobutylhexahydr opyrrolo[1,2- a]pyrazine-1,4- dione	<chem>CC(C)CC1C(=O)N2CCCC2C(=O)N1</chem>		[299]
26.10	3705-27-9	9854305	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cyclo(Gly-L-Pro); (S)- Hexahydropyrrolo [1,2-a]pyrazine- 1,4-dione	<chem>C1CC2C(=O)NCC(=O)N2C1</chem>		[301]
27	110-89-4		FEMA number: 2908 FEMA GRAS number: 3 JECFA number: 1607 FL No: 14.010	Piperidine	<chem>C1CCNCC1</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PIPERIDIN

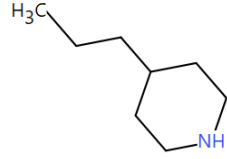
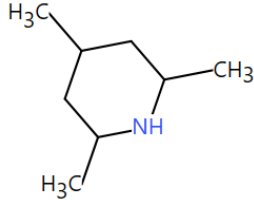
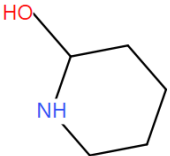
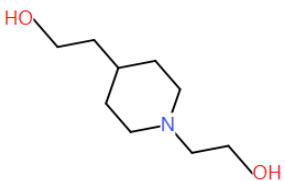
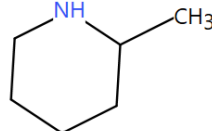
			CoE No: 675				E https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 https://foodb.ca/compounds/FDB012644 [26,153]
27.1	126150-99-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Hydroxypiperidine-3-carboxylic acid	<chem>C1CNCC(C1O)C(=O)O</chem>		UNDER DEVELOPMENT
27.2	85819-03-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,4-Piperidinedicarboxylic acid	<chem>OC(=O)C1CCNC(C1)C(=O)O</chem>		UNDER DEVELOPMENT
27.3	80047-12-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	N-Methylpiperidine-4-yl propionate	<chem>CCC(=O)OC1CCN(C)CC1</chem>		UNDER DEVELOPMENT
27.4	766-09-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Ethylpiperidine	<chem>CCN1CCCCC1</chem>		UNDER DEVELOPMENT
27.5	695-15-8		FEMA number: FEMA GRAS number: JECFA number:	1,4-Dimethylpiperidine	<chem>CC1CCN(C)CC1</chem>		UNDER DEVELOPMENT

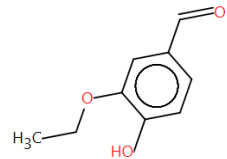
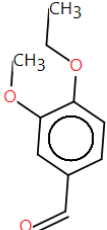
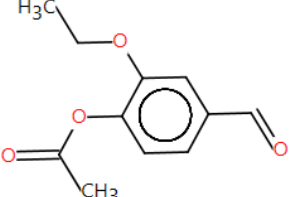
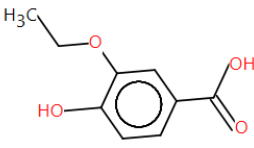
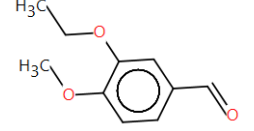
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27.6	671-36-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1,2-Dimethylpiperidine	CC1CCCCN1C		UNDER DEVELOPMENT
27.7	504-03-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,6-Dimethylpiperidine	CC1CCCC(C)N1		UNDER DEVELOPMENT
27.8	498-95-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Piperidine-3-carboxylic acid	OC(=O)C1CCNC1		UNDER DEVELOPMENT
27.9	458-88-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Propylpiperidine	CCCC1CCCN1		UNDER DEVELOPMENT
27.10	766-52-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Ethyl-2-methylpiperidine	CCN1CCCCC1C		UNDER DEVELOPMENT
27.11	1193-12-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3,3-Dimethylpiperidine	CC1(C)CCNC1		UNDER DEVELOPMENT

27.12	934-90-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	alpha-Methyl-1- piperidineethanol	CC1CCCCN1CCO		UNDER DEVELOPMENT
27.13	766-79-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>N</i> - Isopropylpiperidi ne	CC(C)N1CCCCC1		UNDER DEVELOPMENT
27.14	3554-74- 3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Hydroxy-1- methylpiperidine	CN1CCCC(O)C1		UNDER DEVELOPMENT
27.15	3518-83- 0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>N</i> -Ethyl-4- hydroxypiperidine	CCN1CCC(O)CC1		UNDER DEVELOPMENT
27.16	3433-37- 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2- Piperidinemethan ol	OCC1CCCCN1		UNDER DEVELOPMENT
27.17	3230-23- 7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Ethylpiperidine	CCC1CCNCC1		UNDER DEVELOPMENT

27.18	3105-95-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Pipecolic acid	<chem>OC(=O)C1CCCCN1</chem>		UNDER DEVELOPMENT
27.19	6659-34-3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Methyl-4-piperidyl acetate	<chem>CN1CCC(CC1)OC(C)=O</chem>		UNDER DEVELOPMENT
27.20	6457-49-4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Piperidinemethanol	<chem>OCC1CCNCC1</chem>		UNDER DEVELOPMENT
27.21	3040-44-6	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Piperidinoethanol	<chem>OCCN1CCCCC1</chem>		UNDER DEVELOPMENT
27.22	533-15-3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-(1-Methylpiperidin-2-yl)ethanol	<chem>CN1CCCCC1CCO</chem>		UNDER DEVELOPMENT
27.23	106-52-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Methylpiperidin-4-ol	<chem>CN1CCC(O)CC1</chem>		UNDER DEVELOPMENT

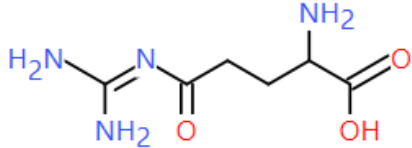
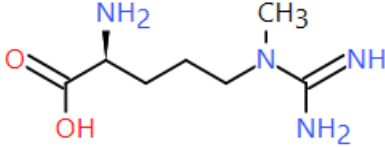
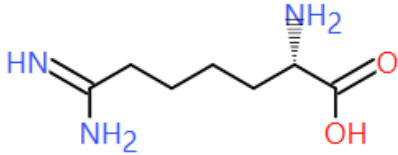
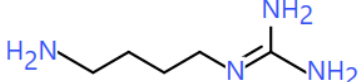
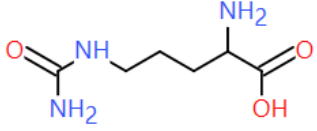
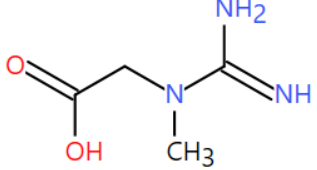
27.24	104-89-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Ethyl-2- methylpiperidine	CCC1CCC(C)NC1		UNDER DEVELOPMENT
27.25	104-58-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1- Piperidinepropano 1	OCCCN1CCCCC1		UNDER DEVELOPMENT
27.26	626-56-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3- Methylpiperidine	CC1CCCNC1		UNDER DEVELOPMENT
27.27	626-67-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1- Methylpiperidine	CN1CCCCC1		UNDER DEVELOPMENT
27.28	1484-84- 0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-(2- Hydroxyethyl)pip eridine	OCCC1CCCCN1		UNDER DEVELOPMENT
27.29	5006-62- 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ethyl nipecotate	CCOC(=O)C1CCCNC1		UNDER DEVELOPMENT

27.30	22398-09-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Propylpiperidine	CCCC1CCNCC1		UNDER DEVELOPMENT
27.31	21974-48-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,4,6-Trimethylpiperidine	CC1CC(C)NC(C)C1		UNDER DEVELOPMENT
27.32	45506-41-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Piperidinol	OC1CCCCN1		UNDER DEVELOPMENT
27.33	50325-75-2		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,2'-Piperidine-1,4-diyl diethanol; Piperidine-1,4-diethanol	OCCC1CCN(CCO)CC1		UNDER DEVELOPMENT
27.34	109-05-7	203642 1	FEMA number: 4244 FEMA GRAS number: 22 JECFA number: 1608 FL No: 14.133 CoE No:	2-Methylpiperidine; 2-Pipecoline	CC1CCCCN1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLPIPERIDINE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [302]

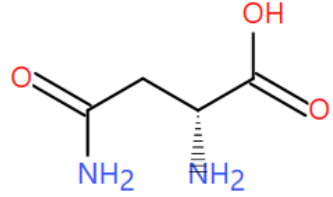
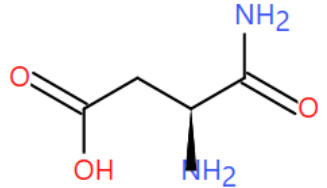
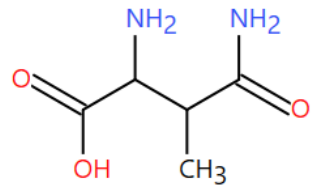
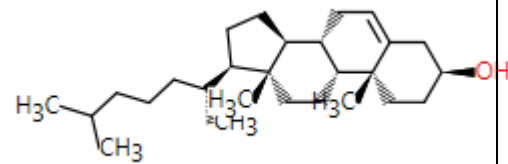
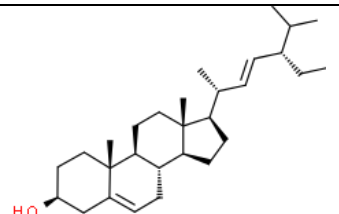
28	121-32-4	204464 7	FEMA number: 2464 FEMA GRAS number: 3 JECFA number: 893 FL No: 05.019 CoE No: 108	Ethylvanillin	CCOc1cc(C=O)ccc1O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLVANILLIN https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [27]
28.1	120-25-2		FEMA number: FEMA GRAS number: JECFA number: FL No: 05.066 CoE No: 703	4-Ethoxy-3-methoxybenzaldehyde	CCOc1ccc(C=O)cc1OC		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [134]
28.2	72207-94-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Ethoxy-4-formylphenyl acetate	CCOc1cc(C=O)ccc1OC(C)=O		UNDER DEVELOPMENT
28.3	5438-38-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Ethoxy-4-hydroxybenzoic acid	CCOc1cc(ccc1O)C(O)=O		UNDER DEVELOPMENT
28.4	1131-52-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Ethoxy-4-methoxybenzaldehyde	CCOc1cc(C=O)ccc1OC		UNDER DEVELOPMENT

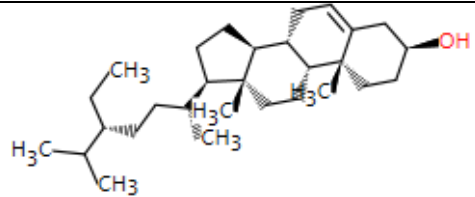
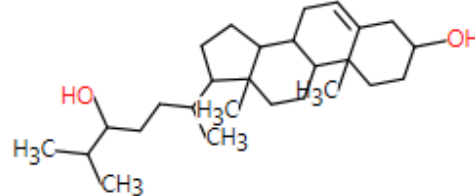
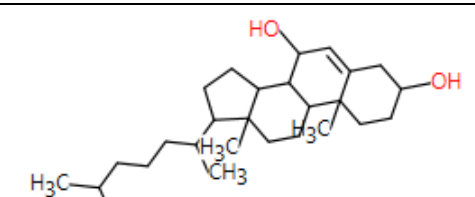
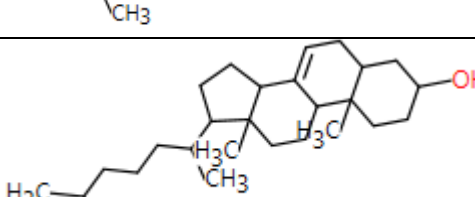
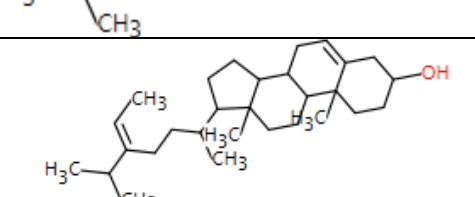
28.5	34123-66-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Isopropoxy-4-methoxybenzaldehyde	<chem>COc1ccc(C=O)cc1OC(C)C</chem>		UNDER DEVELOPMENT
28.6	159661-85-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Ethoxy-4-formylphenyl propionate	<chem>CCOc1cc(C=O)ccc1OC(=O)CC</chem>		UNDER DEVELOPMENT
28.7	188417-26-7		FEMA number: 3837 FEMA GRAS number: 18 JECFA number: 953 FL No: 09.933 CoE No:	Ethyl vanillin isobutyrate	<chem>CCOc1cc(C=O)ccc1OC(=O)C(C)C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLVANILLINISOBUTYRATE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [135]
28.8	122397-96-0	6027693	FEMA number: 3801 FEMA GRAS number: 17 JECFA number: 892 FL No: 16.075 CoE No:	Ethyl vanillin β -D-glucopyranoside; Ethyl vanillin glucoside	<chem>CCOC1=C(C=CC(=C1)C=O)OC2C(C(C(C(O2)CO)O)O)O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLVANILLINGLUCOPYRANOSIDE https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

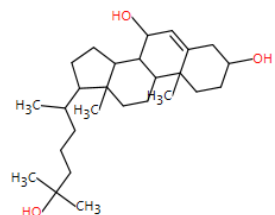
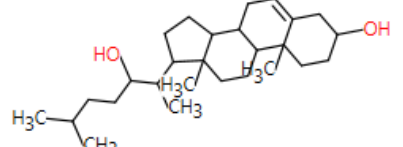
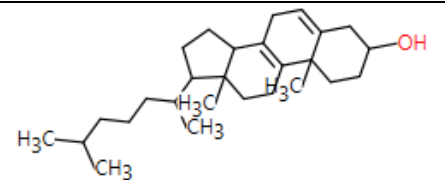
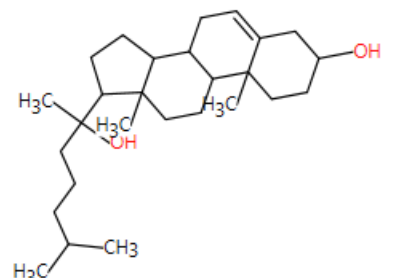
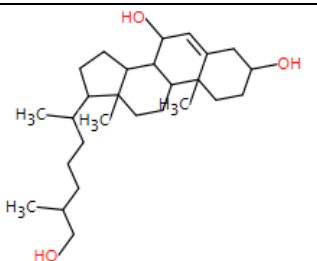
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29	157-06-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	D-Arginine; (R)-2-Amino-5-guanidinopentanoic acid	<chem>NC(CCCNC(N)=N)C(O)=O</chem>		https://foodb.ca/compounds/FDB023167 [166]	
29.1	36889-13-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>N</i> ⁵ -Iminoethyl- <i>L</i> -ornithine; (2 <i>S</i>)-2-Amino-5-(1-aminoethylideneamino)pentanoic acid	<chem>C/C(=N\CCCC(C(=O)O)N)/N</chem>		UNDER DEVELOPMENT	
29.2	UNDER DEVELOPMENT	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>N</i> ⁵ -Iminomethyl- <i>L</i> -ornithine; (2 <i>S</i>)-2-Amino-5-(aminomethylideneamino)pentanoic acid	<chem>C(CC(C(=O)O)N)CN=CN</chem>		UNDER DEVELOPMENT	
29.3	UNDER DEVELOPMENT	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>N</i> -Iminomethylornithine; (2 <i>S</i>)-5-Amino-2-(aminomethylideneamino)pentanoic acid	<chem>C(CC(C(=O)O)N=CN)CN</chem>		UNDER DEVELOPMENT	
29.4	UNDER DEVELOPMENT	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Amino-5-(diaminomethylideneamino)pentanoic acid	<chem>C(CN=C(N)N)C(CC(=O)O)N</chem>		UNDER DEVELOPMENT	

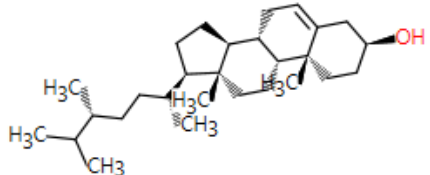
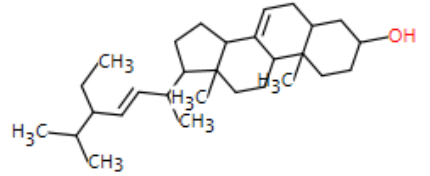
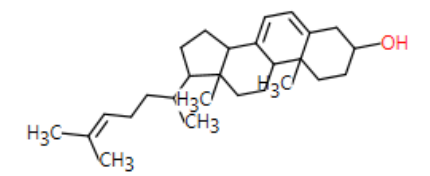
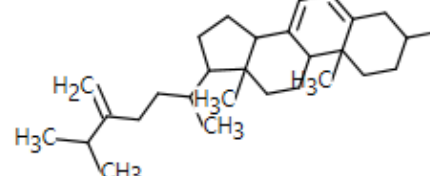
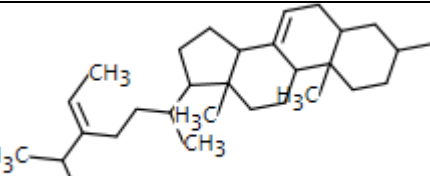
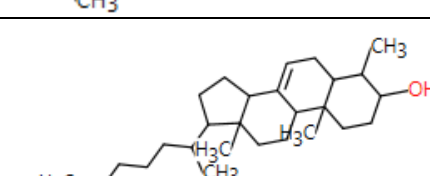
29.5	UNDER DEVELOPMENT		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Amino-5-(diaminomethylideneamino)-5-oxopentanoic acid	<chem>C(CC(=O)N=C(N)N)C(=O)O</chem>		UNDER DEVELOPMENT
29.6	77044-73-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	δ -N-Methylarginine; N ⁵ -methyl-L-arginine; (2S)-2-amino-5-(N-methylcarbamimidamido)pentanoic acid	<chem>CN(CCCC(C(=O)O)N)C(=N)N</chem>		UNDER DEVELOPMENT
29.7	16377-00-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	L-Indospicine; (2S)-2,7-Diamino-7-iminoheptanoic acid	<chem>N[C@@H](CCCC(N)=N)C(=O)O</chem>		[238]
29.8	306-60-5	2061877	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Agmatine; 2-(4-Aminobutyl)guanidine; Argmatine	<chem>C(CCN=C(N)N)CN</chem>		https://foodb.ca/compounds/FDB008310 [214]
29.9	372-75-8	2067596	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	L-citrulline; δ -Ureidonorvaline	<chem>C(CC(C(=O)O)N)CNC(=O)N</chem>		[317-318]
29.10	57-00-1	2003066	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Creatin; N-Amidinosarcosine ;	<chem>CN(CC(=O)O)C(=N)N</chem>		https://foodb.ca/compounds/FDB005403 [215]

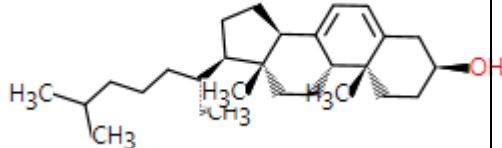
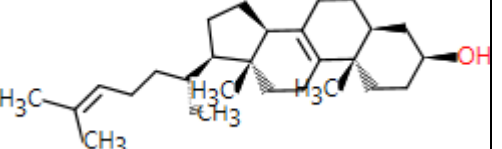
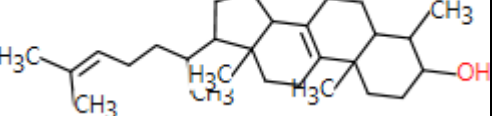
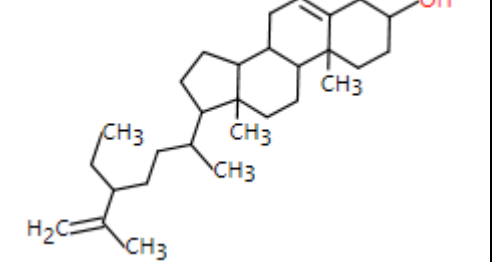
29.11	156-86-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>L</i> -Homoarginine	<chem>C(CCN=C(N)N)CC(C(=O)O)N</chem>		[238]
29.12	2978-24-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Amino-4-guanidinobutanoic acid	<chem>C(CN=C(N)N)C(C(=O)O)N</chem>		[238]
29.13		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Hydroxy- <i>L</i> -homoarginine; (2 <i>S</i>)-2-Amino-6-(diaminomethylideneamino)-5-hydroxyhexanoic acid	<chem>C(CC(CN=C(N)N)O)C(C(=O)O)N</chem>		[238]
29.14		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Hydroxy- <i>L</i> -arginine; δ -Hydroxy- <i>L</i> -arginine; (2 <i>S</i>)-2-Amino-5-(diaminomethylideneamino)-5-hydroxypentanoic acid	<chem>C(CC(N=C(N)N)O)C(C(=O)O)N</chem>		[238]
29.15	1622-18-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(+)- γ -Hydroxy- <i>L</i> -homoarginine; (2 <i>S</i> ,4 <i>R</i>)-2-Amino-6-(diaminomethylideneamino)-4-hydroxyhexanoic acid	<chem>C(CN=C(N)N)C(CC(C(=O)O)N)O</chem>		UNDER DEVELOPMENT

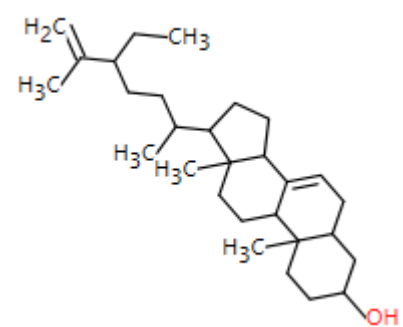
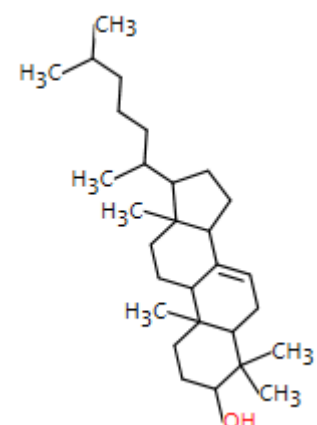
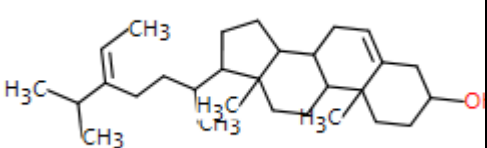
30	70-47-3	200735 9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	L-Asparagine; Aspartamic acid; (2S)-2,4- Diamino-4- oxobutanoic acid	<chem>NC(CC(N)=O)C(O)=O</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ASPARAGINE [156]
30.1	28057-52-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>L</i> -Isoasparagine; (3S)-3,4-Diamino-4-oxobutanoic acid	<chem>C(C(C(=O)N)N)C(=O)O</chem>		UNDER DEVELOPMENT
30.2	50817-24-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	β -Methylasparagine; 2,4-Diamino-3-methyl-4-oxobutanoic acid	<chem>CC(C(C(=O)O)N)C(=O)N</chem>		UNDER DEVELOPMENT
31	57-88-5	200353 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cholesterol; Cholest-5-en-3β-ol	<chem>CC(C)CCCC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C3CCC12C</chem>		UNDER DEVELOPMENT
31.1	83-48-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Stigmasterol; Stigmasta-5,22-dien-3 β -ol	<chem>CCC(C=CC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C3CCC12C)C(C)C</chem>		https://foodb.ca/compounds/FDB001936 [16,148]

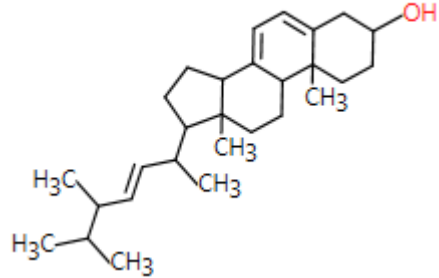
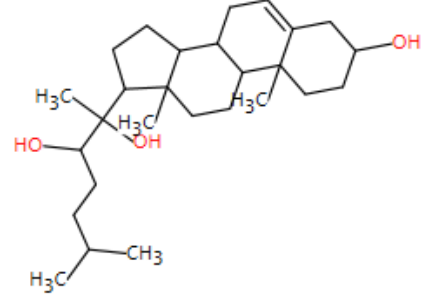
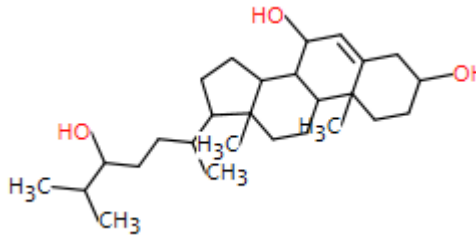
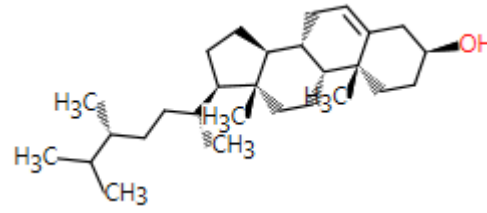
31.2	83-46-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	β -Sitosterol	<chem>CCC(CCC(C)C1CCC2C1(CCC3C2CC=C4C3(CCC(C4)O)C)C(C)C</chem>		https://foodb.ca/compounds/FDB012362 [96]
31.3	474-73-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cerebrosterol	<chem>CC(C)C(O)CCC(C)C1CC(C2C3CC=C4CC(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB022611 [98]
31.4	566-27-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7 β -Hydroxycholesterol	<chem>CC(C)CCCC(C)C1CCC2C3C(O)C=C4CC(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB023832 [99]
31.5	80-99-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Lathosterol	<chem>CC(C)CCCC(C)C1CCC2C1(CCC3C2=CCC4C3(C)CC(C4)O)C</chem>		https://foodb.ca/compounds/FDB022463 [100]
31.6	481-14-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Isofucosterol	<chem>CC=C(CCC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C3CCC12C)C(C)C</chem>		https://foodb.ca/compounds/FDB012493 [101]

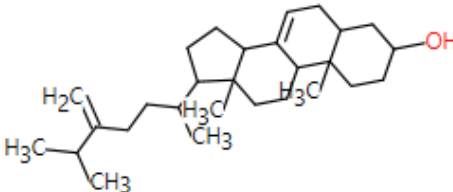
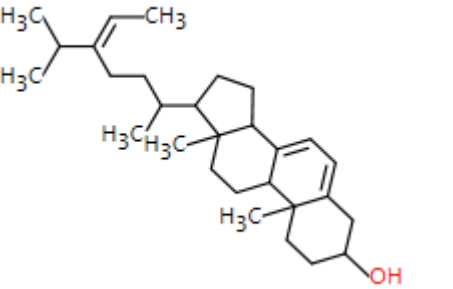
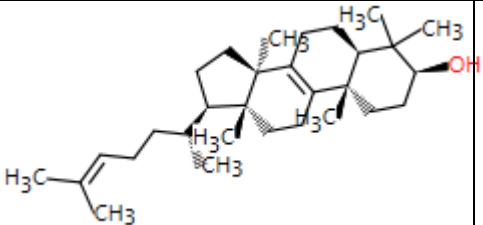
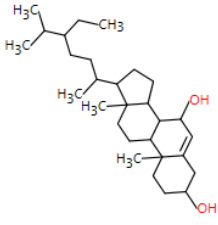
31.7	64907-22-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7alpha,25-Dihydroxycholesterol	<chem>CC(CCCC(C)(C)O)C1CC2C3C(O)C=C4CC(O)CC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB023874 [102]
31.8	17954-98-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	22R-Hydroxycholesterol	<chem>CC(C)CCC(O)C(C)C1CC2C3CC=C4CC(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB023285 [103]
31.9	70741-38-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	8-Dehydrocholesterol	<chem>CC(C)CCCC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C=3CCC12C</chem>		https://foodb.ca/compounds/FDB022805 [104]
31.10		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	20alpha-Hydroxy cholesterol	<chem>CC(C)CCCC(C)(O)C1CC2C3CC=C4CC(O)CCC4(C)C3CCC12C</chem>		[105]
31.11	4725-24-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Cholest-5-ene-3beta,7alpha,26-triol	<chem>CC(CO)CCCC(C)C1CCC2C3C(O)C=C4CC(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB023875 [106]

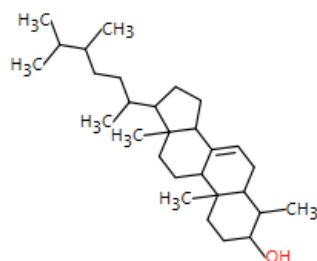
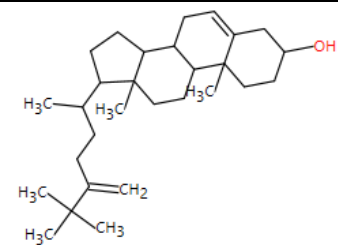
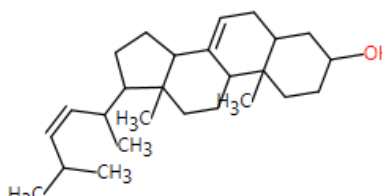
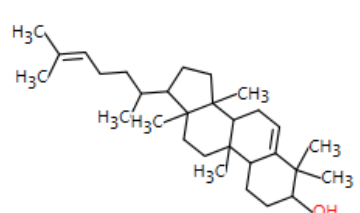
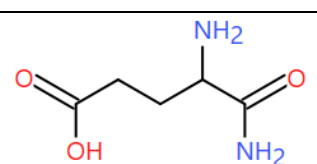
31.12	474-62-4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ergost-5-en-3.beta.-ol, (24R)-	<chem>CC(C)[C@H](C)CC[C@@H](C)[C@H]1CC[C@H]2[C@@H]3CC=C4[C@H]1(O)CC[C@]4(C)[C@H]3CC[C@]12C</chem>		[107]
31.13	481-18-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	α -Spinasterol	<chem>CCC(C=CC(C)C1CCC2C3=CCC4CC(O)CCC4(C)C3CCC12C)C(C)C</chem>		https://foodb.ca/compounds/FDB003992 [108]
31.14	1715-86-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7-Dehydrodesmosterol	<chem>CC(CCC=C(C)C)C1CCC2C3=CC=C4CC(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB030623 [109]
31.15	23582-83-4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Dehydroepisterol	<chem>CC(C)C(=C)CCC(C)C1CC2C3=CC=C4CC(O)CC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB024117 [110]
31.16	23290-26-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	delta7-Avenasterol	<chem>CC=C(CCC(C)C1CCC2C3=CCC4CC(O)CCC4(C)C3CCC12C)C(C)C</chem>		https://foodb.ca/compounds/FDB030685 [111]
31.17	481-25-4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Lophenol	<chem>CC(C)CCCC(C)C1CCC2C3=CCC4(C)C(O)CCC4(C)C3CCC12C</chem>		https://foodb.ca/compounds/FDB012028 [112]

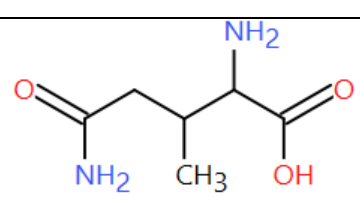
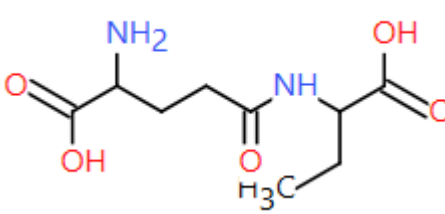
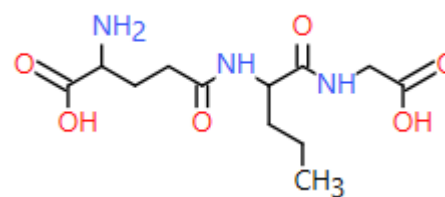
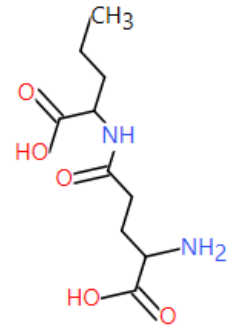
31.18	434-16-2	207100 5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7- Dehydrocholesterol; Provitamin D3;	<chem>CC(C)CCCC(C)C1CCC2C1(CCC3C2=CC=C4C3(CC(C4)O)C)C</chem>		https://foodb.ca/compounds/FDB021882 [167]
31.19	128-33-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Zymosterol; 5 α - Cholesta-8,24- dien-3 β -ol	<chem>OC1CCC2(C3=C(CCC2C1)C4CCC(C(C)CCC=C(C)C)C4(C)CC3)C</chem>		https://foodb.ca/compounds/FDB031258 [168]
31.20	7448-03- 5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4 α - Methylzymosterol	<chem>OC1CCC2(C3=C(CCC2C1)C4CCC(C(C)CCC=C(C)C)C4(C)CC3)C</chem>		https://foodb.ca/compounds/FDB022496 [170]
31.21	2364-23- 0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5,25- Stigmastadienol	<chem>CCC(CCC(C)C1CCC2C1(CCC3C2CC=C4C3(CCC(C4)O)C)C(=C)C</chem>		[171]

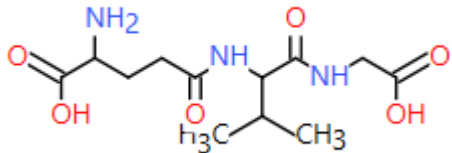
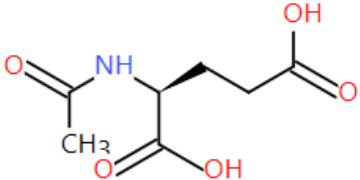
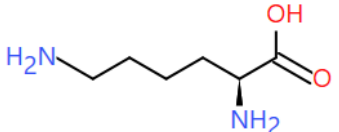
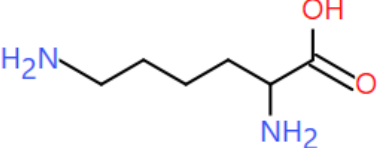
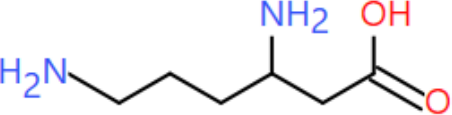
31.22	6785-58-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5 α -Stigmasta-7,25-dien-3 β -ol	<chem>CCC(CCC(C)C1CCC2C1(CCC3C2=CCC4C3(CCC(C4)O)C)C(=C)C</chem>		https://foodb.ca/compounds/FDB001306 [173]
31.23	6384-28-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4,4-Dimethyl-5 α -cholest-7-en-3 β -ol	<chem>OC1CCC2(C3CCC4(C(C3=CCC2C1(C)C)CCC4C(C)CCCC(C)C)C</chem>		https://foodb.ca/compounds/FDB030474 [174]
31.24	17605-67-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Fucosterol; <i>trans</i> -D5-Avenosterol; (<i>E</i>)-24-Ethylidenecholesterol	<chem>C\C=C(/CCC(C)C1CCC2C3CC=C4CC(O)CCC4(C)C3CCC12C)C(C)C</chem>		[175]

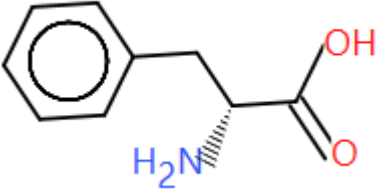
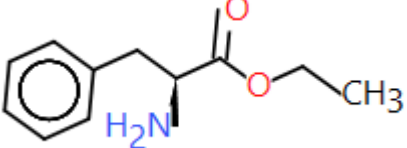
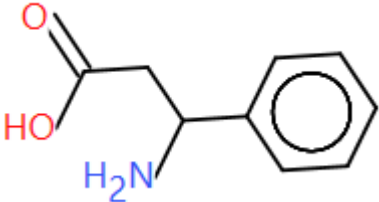
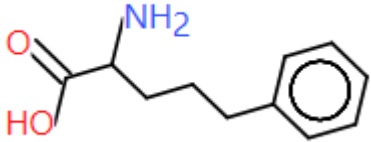
31.25	57-87-4	200352 7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ergosterol; (22 <i>E</i>)- Ergosta-5,7,22- trien-3-ol	<chem>CC(C)C(C)/C=C/C(C)C1C CC2C1(CCC3C2=CC=C4 C3(CCC(C4)O)C)C</chem>		[176]
31.26	15234- 55-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	20 <i>α</i> ,22 <i>β</i> - Dihydroxycholest erol	<chem>CC(C)CCC(C(C)(C1CCC C2C1(CCC3C2CC=C4C3(C CC(C4)O)C)C)O)O</chem>		[177]
31.27			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(24 <i>R</i>)-Cholest-5- ene-3- <i>β</i> ,7- <i>α</i> ,24- triol; 5 <i>α</i> -Cholesta-7,24- dien-3- <i>β</i> -ol	<chem>CC(CCC(C(C)C)O)C1CC C2C1(CCC3C2C(C=C4C3 (CCC(C4)O)C)O)C</chem>		[178]
31.28			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(3 <i>S</i> ,10 <i>R</i> ,13 <i>R</i>)-17- [(2 <i>R</i> ,5 <i>R</i>)-5,6- Dimethylheptan- 2-yl]-10,13- dimethyl- 2,3,4,7,8,9,11,12, 14,15,16,17- dodecahydro-1 <i>H</i> - cyclopenta[<i>a</i>]phen anthren-3-ol	<chem>CC(CCC(C)C(C)C)C1CC C2C1(CCC3C2CC=C4C3(CCC(C4)O)C)C</chem>		https://foodb.ca/compounds/FDB012521 [179]

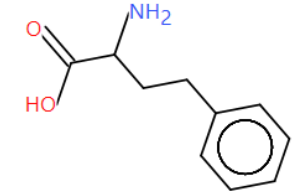
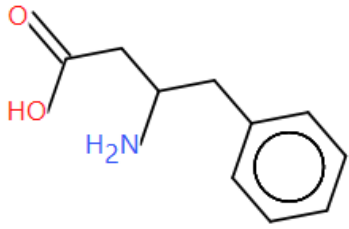
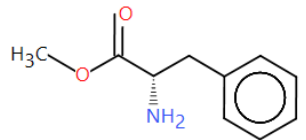
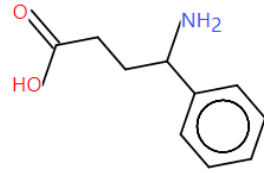
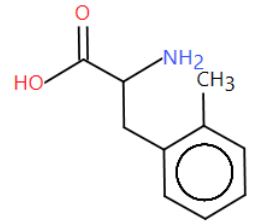
31.29	474-68-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	9ξ -Episterol; 5α,9ξ -Ergosta-7,24(28)-dien-3β-ol	<chem>CC(CCC(=C)C(C)C)C1CC2C1(CCC3C2=CCC4C3(CCC(C4)O)C)C</chem>		[180]
31.30		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(3 <i>S</i> ,10 <i>R</i> ,13 <i>R</i>)-10,13-Dimethyl-17-[(<i>Z</i> ,2 <i>R</i>)-5-propan-2-ylhept-5-en-2-yl]-2,3,4,9,11,12,14,15,16,17-decahydro-1 <i>H</i> -cyclopenta[<i>a</i>]phenanthren-3-ol	<chem>C/C=C(/CCC(C)C1CCC2C1(CCC3C2=CC=C4C3(CC(C4)O)C)C)C(C)C</chem>		https://foodb.ca/compounds/FDB024118 [181]
31.31	514-46-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(+)-Tirucallol; (2 <i>S</i>)-(+)-Triucalla-8,24-diene-3β-ol	<chem>CC(CCC=C(C)O)C1CCC2(C1(CCC3=C2CCC4C3(CC(C4(C)C)O)C)C)C</chem>		https://foodb.ca/compounds/FDB016013 [184]
31.32	34427-61-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	7α-Hydroxysitosterol	<chem>CCC(CCC(C)C1CCC2C1(CCC3C2(C=C4C3(CCC(C4)O)C)O)C)C(C)C</chem>		[185]

31.33	33903-17-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	24 α -Methylphenol	<chem>CC1C(CCC2(C1CC=C3C2CCC4(C3CCC4C(C)CC(C)C(C)C)C)C)O</chem>		[186]
31.34	89702-24-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	25-Methyl-24-methylenecholesterol	<chem>CC(CCC(=C)C(C)(C)C)C1CCC2C1(CCC3C2CC=C4C3(CCC(C4)O)C)C</chem>		[187]
31.35	30674-32-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Asterosterol	<chem>CC(C)/C=C/C(C)C1CCC2C1(CCC3C2=C4C3(CCC(C4)O)C)C</chem>		[188]
31.36	128779-09-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3 β -Cucurbita-5,24-dien-3-ol; Euferol	<chem>CC(CCC=C(C)C)C1CCC2(C1(CCC3(C2CC=C4C3C(C)C(C4)C)O)C)C</chem>		https://foodb.ca/compounds/FDB018100 [189]
32	328-48-3	FEMA number: FEMA GRAS number: JECFA number: FL No:	Isoglutamine; 4,5-Diamino-5-oxopentanoic acid;	<chem>C(CC(=O)O)C(C(=O)N)N</chem>		UNDER DEVELOPMENT

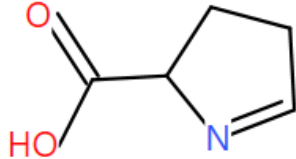
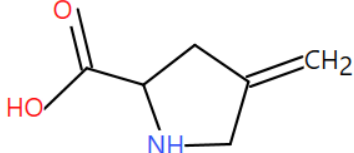
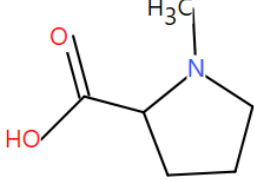
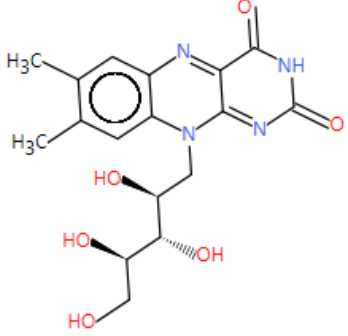
			CoE No:	<i>DL</i> - Isoglutamine			
32.1			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	L-β- Methylglutamin e; (3 <i>S</i>)-3- Methyl- <i>L</i> - glutamine; β- Methylglutamin e	<chem>CC(CC(=O)N)C(C(=O)O)N</chem>		UNDER DEVELOPMENT
32.2	16869- 42-4		FEMA number: 4738 FEMA GRAS number: JECFA number: 2266 FL No: CoE No:	Glutamyl-2- aminobutyric acid; γ- Glutamyl-α- aminobutyrate; γ- <i>L</i> -Glutamyl- <i>L</i> - 2-aminobutyrate	<chem>CCC(C(=O)O)NC(=O)CCC(C(=O)O)N</chem>		https://apps.who.int/food-additives-contaminants-jecfa-database/Home/C_hemical/6515 [208, 209]
32.3	38837- 71-7		FEMA number: 4739 FEMA GRAS number: JECFA number: 2267 FL No: CoE No:	Glutamyl- norvalyl-glycine	<chem>CCCC(C(=O)NCC(=O)O)NC(=O)CCC(C(=O)O)N</chem>		https://apps.who.int/food-additives-contaminants-jecfa-database/Home/C_hemical/6517 [208, 210]
32.4	71133- 09-0		FEMA number: 4740 FEMA GRAS number: JECFA number: 2268 FL No: CoE No:	Glutamyl- norvaline	<chem>CCCC(C(=O)O)NC(=O)CCC(C(=O)O)N</chem>		https://apps.who.int/food-additives-contaminants-jecfa-database/Home/C_hemical/6516 [208, 211]

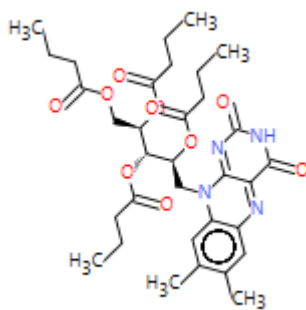
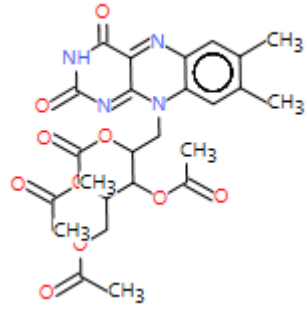
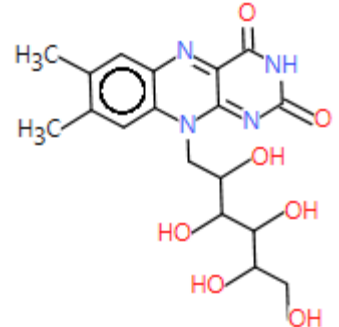
32.5	38837-70-6		FEMA number: 4709 FEMA GRAS number: 25, 27 JECFA number: 2123 FL No: CoE No:	Glutamyl-valyl-glycine	<chem>CC(C)C(C(=O)NCC(=O)O)NC(=O)CCC(C(=O)O)N</chem>		https://www.hfpa.ppxternal.fda.gov/scripts/fdcci/index.cfm?set=FoodSubstances&id=GLUTAMYLVALYLGLYCINE [208, 212]
32.6	1188-37-0	2147084	FEMA number: 4752 FEMA GRAS number: 2269 FL No: CoE No:	<i>N</i> -Acetyl- <i>L</i> -glutamic acid	<chem>CC(=O)NC(CCC(=O)O)C(=O)O</chem>		https://apps.who.int/food-additives-contaminants-jecfa-database/Home/Chemical/6513 https://foodb.ca/compounds/FDB031019 [208, 213]
33	923-27-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>D</i>-Lysine; (2<i>R</i>)-2,6-Diaminohexanoic acid	<chem>NCCCCC(N)C(O)=O</chem>		https://foodb.ca/compounds/FDB023163 [191]
33.1	70-54-2	200-740-6	FEMA number: FEMA GRAS number: JECFA number: FL No: 17.013 CoE No: 11947	<i>DL</i> -Lysine; (2 <i>RS</i>)-2,6-Diaminohexanoic acid	<chem>NCCCCC(N)C(O)=O</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [192]
33.2	504-21-2		FEMA number: FEMA GRAS number: JECFA number: FL No:	(3 <i>S</i>)-3,6-Diaminohexanoic acid; <i>L</i> -β-lysine	<chem>C(CC(CC(=O)O)N)CN</chem>		https://foodb.ca/compounds/FDB028778 [193]

			CoE No:				
34	150-30-1		FEMA number: 3726 FEMA GRAS number: 13 JECFA number: 1432 FL No: 17.017 CoE No: 10488	<i>DL</i> - Phenylalanine; 2-Amino-3- phenylpropanoic acid	<chem>NC(Cc1ccccc1)C(O)=O</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PHENYLALANINEDL https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872 [194]
34.1	1795-96-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ethyl 2-amino-3-phenylpropanoate	<chem>CCOC(=O)C(CC1=CC=CC=C1)N</chem>		UNDER DEVELOPMENT
34.2	614-19-7	210371 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Amino-3-phenylpropionic acid; β-Phenyl-β-alanine	<chem>C1=CC=C(C=C1)C(CC(=O)O)N</chem>		UNDER DEVELOPMENT
34.3	34993-02-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-Phenylnorvaline; 2-Amino-5-phenylpentanoic acid	<chem>C1=CC=C(C=C1)CCCC(=O)O)N</chem>		UNDER DEVELOPMENT

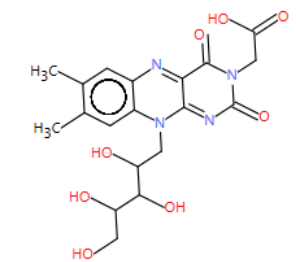
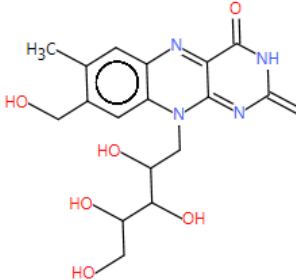
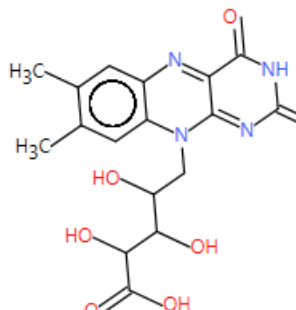
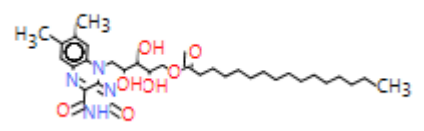
34.4	1012-05-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Amino-4-phenylbutanoic acid; <i>DL</i> -Homophenylalanine	<chem>C1=CC=C(C=C1)CCC(C(=O)O)N</chem>		UNDER DEVELOPMENT
34.5	15099-85-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Amino-4-phenylbutanoic acid; <i>DL</i> -β-Homophenylalanine	<chem>C1=CC=C(C=C1)CC(CC(=O)O)N</chem>		UNDER DEVELOPMENT
34.6	2577-90-4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>L</i> -Phenylalanine, methyl ester; (<i>S</i>)-Methyl 2-amino-3-phenylpropanoate	<chem>COC(=O)C(CC1=CC=CC=C1)N</chem>		UNDER DEVELOPMENT
34.7	1011-60-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Amino-4-phenylbutanoic acid	<chem>C1=CC=C(C=C1)C(CCC(=O)O)N</chem>		UNDER DEVELOPMENT
34.8	80126-53-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Methyl- <i>L</i> -phenylalanine; (<i>S</i>)-2-Amino-3-(<i>o</i> -tolyl)propanoic acid	<chem>CC1=CC=CC=C1CC(C(=O)O)N</chem>		UNDER DEVELOPMENT

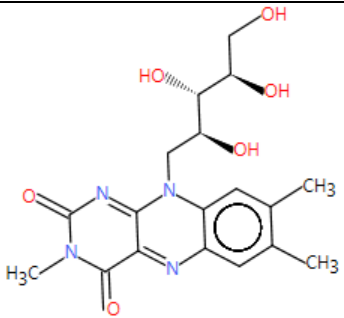
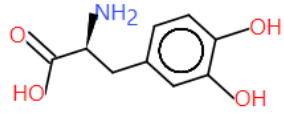
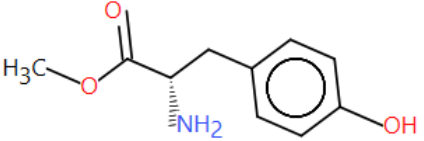
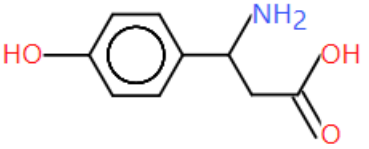
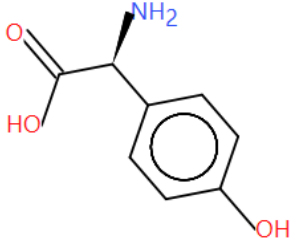
34.9	4599-47-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Amino-3- <i>p</i> -tolyl-propionic acid; 2-Amino-3-(4-methylphenyl)propanoic acid; <i>DL</i> -4-Methylphenylalanine	<chem>CC1=CC=C(C=C1)CC(C(=O)O)N</chem>		UNDER DEVELOPMENT
34.10	2935-35-5	2209098	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>L</i> -Phenylglycine; (2 <i>S</i>)-2-Amino-2-phenylacetic acid	<chem>C1=CC=C(C=C1)C(C(=O)O)N</chem>		UNDER DEVELOPMENT
34.11	6945-32-0	6227220	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Amino-2-phenylpropanoic acid	<chem>CC(C1=CC=CC=C1)(C(=O)O)N</chem>		UNDER DEVELOPMENT
34.12	23239-35-2	6351213	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	α -Methyl- <i>L</i> -phenylalanine; (2 <i>S</i>)-2-Amino-2-methyl-3-phenylpropanoic acid	<chem>CC(C1=CC=CC=C1)(C(=O)O)N</chem>		UNDER DEVELOPMENT
35	2139-03-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3,4-Dihydro-2<i>H</i>-pyrrole-5-carboxylic acid; 1-Pyrroline-2-carboxylic acid; Pyrroline-5-carboxylate; 1-Pyrroline-2-carboxylate	<chem>C1CC(=NC1)C(=O)O</chem>		https://foodb.ca/compounds/FDB024129 [222]

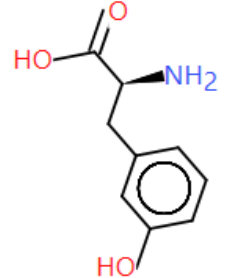
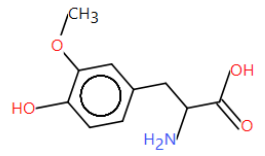
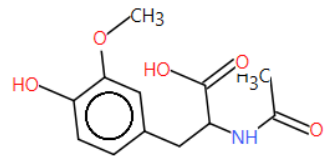
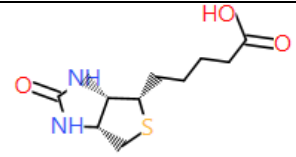
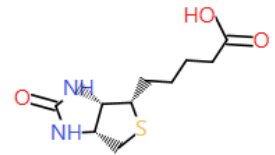
35.1	2906-39-0		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3,4-Dihydro-2 <i>H</i> -pyrrole-2-carboxylic acid; 1-Pyrroline-5-carboxylic acid	<chem>C1CC(N=C1)C(=O)O</chem>		https://foodb.ca/compounds/FDB022542 [223]
35.2	2370-38-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Methyleneproline; 4-Methylidenepyrrolidine-2-carboxylic acid	<chem>C=C1CC(NC1)C(=O)O</chem>		https://foodb.ca/compounds/FDB000537 [226]
35.3	475-11-6	849164 2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>N</i> -Methyl- <i>L</i> -proline; (2 <i>S</i>)-1-Methylpyrrolidine-2-carboxylic acid	<chem>CN1CCCC1C(=O)O</chem>		[231]
36	83-88-5	201507 1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Riboflavine; Vitamin B2	<chem>Cc1cc2N=C3C(=O)NC(=O)N=C3N(CC(O)C(O)C(O)CO)c2cc1C</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=RIBOFLAVIN https://foodb.ca/compounds/FDB012160 [161]

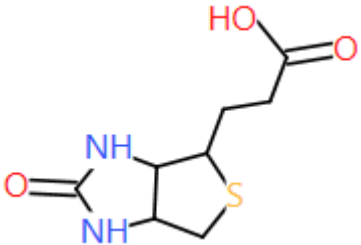
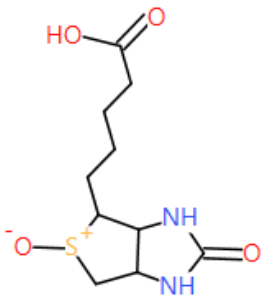
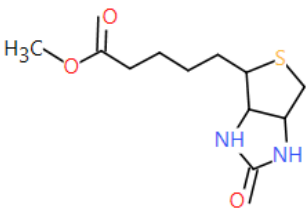
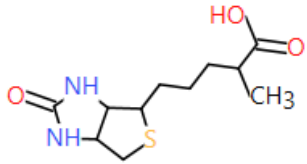
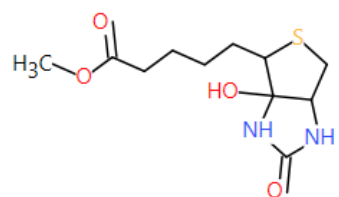
36.1	752-56-7	212034 5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Riboflavin tetrabutryrate; Vitamin B2 tetrabutryrate; Bituvitan; Hibon; Lacflavin;	<chem>CCCC(=O)OCC(C(C(CN1C2=C(C=C(C(=C2)C)C)N=C3C1=NC(=O)NC3=O)OC(=O)CCC)OC(=O)CC)OC(=O)CCC</chem>		UNDER DEVELOPMENT
36.2	752-13-6	212032 4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Riboflavin, 2',3',4',5'- tetraacetate; Riboflavine tetraacetate	<chem>CC1=CC2=C(C=C1C)N(C3=NC(=O)NC(=O)C3=N2)CC(C(C(COC(=O)C)OC(=O)C)OC(=O)C)OC(=O)C</chem>		UNDER DEVELOPMENT
36.3	33210- 88-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Galactoflavine; Sorboflavin	<chem>CC1=CC2=C(C=C1C)N(C3=NC(=O)NC(=O)C3=N2)CC(C(C(C(CO)O)O)O)O</chem>		UNDER DEVELOPMENT

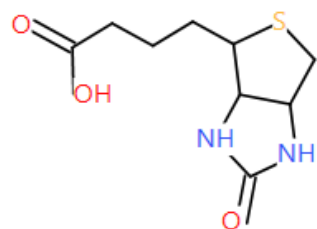
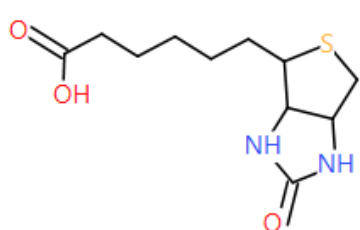
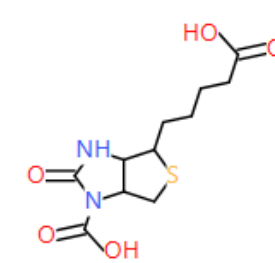
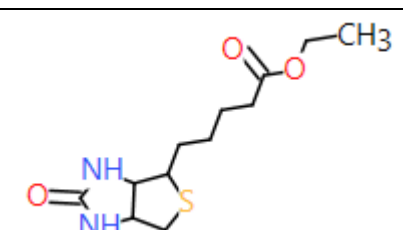
36.4	5984-80-5		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Isoriboflavin; 8-Demethyl-6-methyl-riboflavin	<chem>CC1=C(C2=C(C=C1)N(C3=NC(=O)NC(=O)C3=N2)CC(C(C(CO)O)O)O)C</chem>		UNDER DEVELOPMENT
36.5	20704-80-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Riboflavin-5'-monobutyrate; Riboflavin, 5'-butanoate	<chem>CCCC(=O)OCC(C(C(CN1C2=C(C=C(C(=C2)C)C)N=C3C1=NC(=O)NC3=O)O)O)O</chem>		UNDER DEVELOPMENT
36.6	59224-04-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Vitamin B2 aldehyde; Riboflavininal	<chem>CC1=CC2=C(C=C1C)N(C3=NC(=O)NC(=O)C3=N2)CC(C(C(C=O)O)O)O</chem>		UNDER DEVELOPMENT

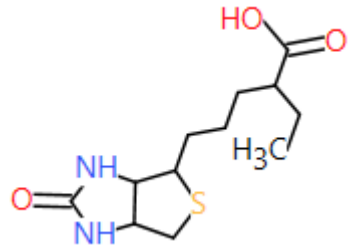
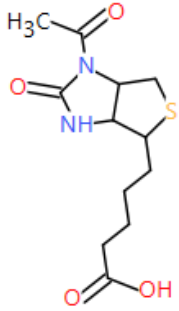
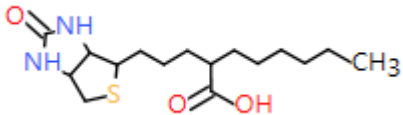
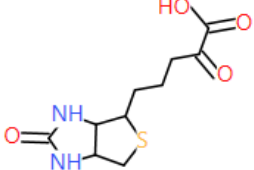
36.7	28714-80-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Carboxymethylriboflavin	<chem>CC1=CC2=C(C=C1C)N(C3=NC(=O)N(C(=O)C3=N2)CC(=O)O)CC(C(C(CO)O)O)O</chem>		UNDER DEVELOPMENT
36.8	52134-62-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	8α-Hydroxymethylriboflavin	<chem>CC1=CC2=C(C=C1CO)N(C3=NC(=O)NC(=O)C3=N2)CC(C(C(CO)O)O)O</chem>		UNDER DEVELOPMENT
36.9	59224-03-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(2 <i>S</i> ,3 <i>S</i> ,4 <i>S</i>)-5-(7,8-Dimethyl-2,4-dioxobenzo[<i>g</i>]pteridin-10-yl)-2,3,4-trihydroxypentanoic acid; 7,8-Dimethyl-10-(2,3,4-trihydroxy-4-carboxybutyl)isalloxazine	<chem>CC1=CC2=C(C=C1C)N(C3=NC(=O)NC(=O)C3=N2)CC(C(C(C(=O)O)O)O)O</chem>		UNDER DEVELOPMENT
36.10	73130-89-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Riboflavin-5'-monopalmitate; Riboflavin, 5'-hexadecanoate	<chem>CCCCCCCCCCCCCCCC(=O)OCC(C(C(CN1C2=C(C=C(C(=C2)C)C)N=C3C1=NC(=O)NC3=O)O)O)O</chem>		UNDER DEVELOPMENT

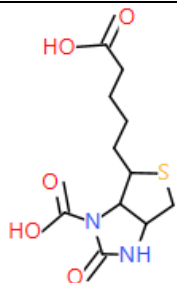
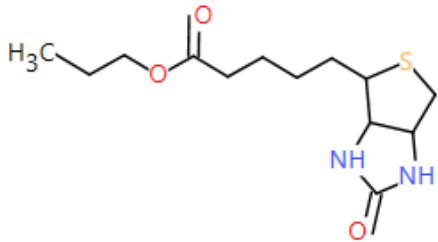
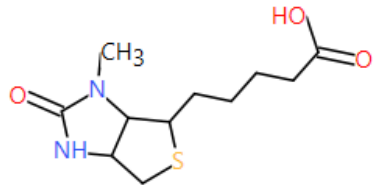
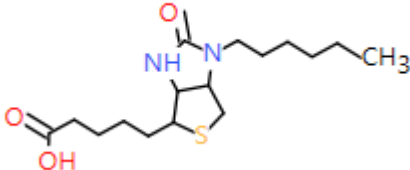
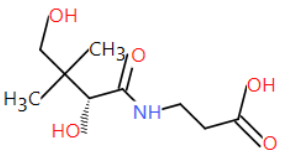
36.11	28721-76-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Methylriboflavin	<chem>CC1=CC2=C(C=C1C)N(C3=NC(=O)N(C(=O)C3=N2)C)CC(C(C(O)O)O)O</chem>		UNDER DEVELOPMENT
37	59-92-7	2004452	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	L-Dopa zwitterion; (2S)-2-Azaniumyl-3-(3,4-dihydroxyphenyl)-propanoate	<chem>N[C@@H](Cc1ccc(O)c(O)c1)C(O)=O</chem>		[201]
37.1	1080-06-4	2140953	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Methyl L-tyrosinate; L-Tyrosine methyl ester	<chem>COC(=O)C(CC1=CC=C(C=C1)O)N</chem>		UNDER DEVELOPMENT
37.2	6049-54-3	9651913	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	β -Tyrosine; 3-Amino-3-(4-hydroxyphenyl)propanoic acid	<chem>C1=CC(=CC=C1C(CC(=O)O)N)O</chem>		UNDER DEVELOPMENT
37.3	938-97-6	2133532	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2-Amino-2-(4-hydroxyphenyl)acetic acid; 4-Hydroxyphenylglycine	<chem>C1=CC(=CC=C1C(C(=O)O)N)O</chem>		UNDER DEVELOPMENT

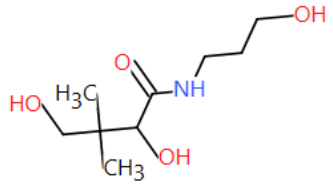
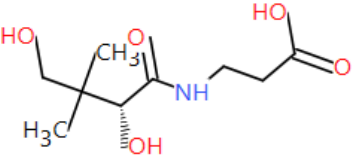
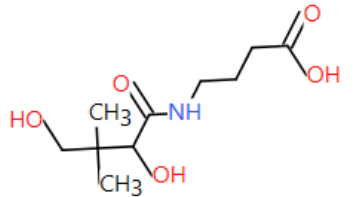
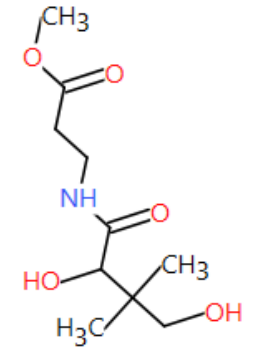
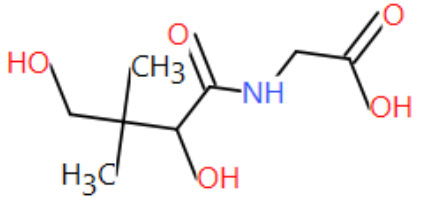
37.4	587-33-7	611743 0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>L-m</i> -Tyrosine; (2 <i>S</i>)-2-Amino-3-(3-hydroxyphenyl)propanoic acid	<chem>C1=CC(=CC(=C1)O)CC(=O)N</chem>		UNDER DEVELOPMENT
37.5	7636-26-2	801788 6	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-Methoxytyrosine; 3-Methoxy- <i>DL</i> -tyrosine; 2-Amino-3-(4-hydroxy-3-methoxyphenyl)propanoic acid;	<chem>COC1=C(C=CC(=C1)CC(=O)N)O</chem>		https://foodb.ca/compounds/FDB022620 [228]
37.6	63357-45-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>N</i> -Acetyl-3-methoxytyrosine; 2-Acetamido-3-(4-hydroxy-3-methoxyphenyl)propanoic acid	<chem>CC(=O)NC(CC1=CC(=C(C=C1)O)OC)C(=O)O</chem>		https://foodb.ca/compounds/FDB028401 [229]
38	58-85-5	200399 3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>d</i>-Biotin; Vitamin H; Vitamin B7;	<chem>OC(=O)CCCCC1SCC2NC(=O)NC12</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=BIOTIN [163]
38.1	57378-70-8	840986 7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>dl</i> -Biotin;	<chem>C1C2C(C(S1)CCCC(=O)O)NC(=O)N2</chem>		https://foodb.ca/compounds/FDB014510 [202]

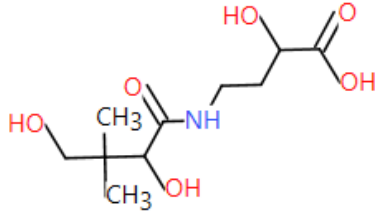
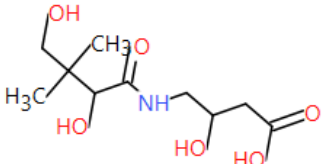
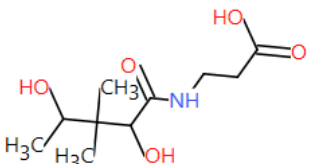
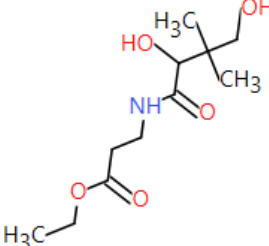
38.2	16968-98-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Bisnorbiotin; <i>d</i> - Allobisnorbiotin	<chem>C1C2C(C(S1)CCC(=O)O)NC(=O)N2</chem>		https://foodb.ca/compounds/FDB023429 [204]
38.3	2173930-24-8	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Biotin <i>d</i> -sulfoxide	<chem>C1C2C(C(S1=O)CCCCC(=O)O)NC(=O)N2</chem>		UNDER DEVELOPMENT
38.4	608-16-2	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>d</i> -Biotin methyl ester	<chem>COC(=O)CCCCC1SCC2NC(=O)NC12</chem>		UNDER DEVELOPMENT
38.5	30868-27-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	α -Methylbiotin	<chem>CC(CCCCC1C2C(CS1)NC(=O)N2)C(=O)O</chem>		UNDER DEVELOPMENT
38.6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Methyl 5-(3a-hydroxy-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)pentanoate	<chem>COC(=O)CCCCC1C2(C(CS1)NC(=O)N2)O</chem>		UNDER DEVELOPMENT

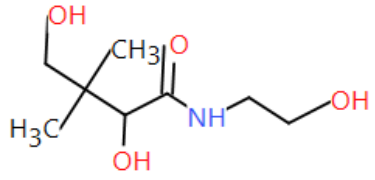
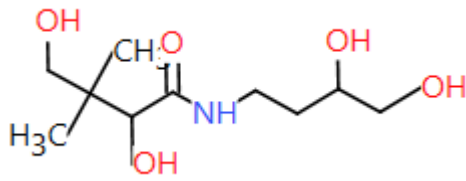
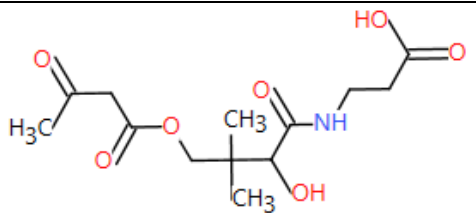
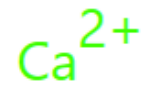
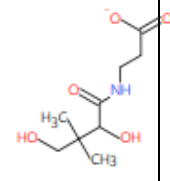
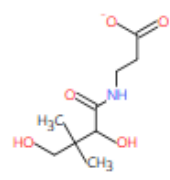
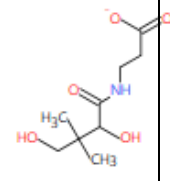
38.7	669-72-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Norbiotin	<chem>C1C2C(C(S1)CCCC(=O)O)NC(=O)N2</chem>		UNDER DEVELOPMENT
38.8	1784-22-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Homobiotin	<chem>C1C2C(C(S1)CCCCC(=O)O)NC(=O)N2</chem>		UNDER DEVELOPMENT
38.9	6706-15-6		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	N1'- Carboxybiotin	<chem>C1C2C(C(S1)CCCC(=O)O)NC(=O)N2C(=O)O</chem>		UNDER DEVELOPMENT
38.10			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Biotin ethyl ester; Ethyl biotinate	<chem>CCOC(=O)CCCCC1C2C(CS1)NC(=O)N2</chem>		UNDER DEVELOPMENT

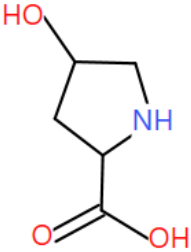
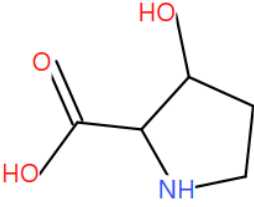
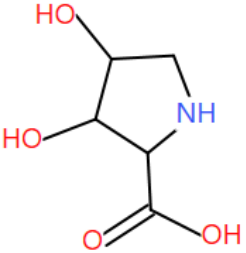
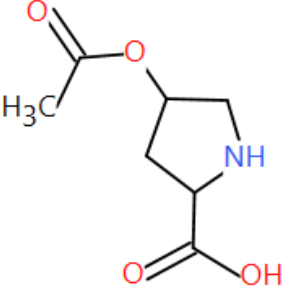
38.11			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ethyl biotin	<chem>CCC(CCCC1C2C(CS1)NC(=O)N2)C(=O)O</chem>		UNDER DEVELOPMENT
38.12			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-[(3aS,4S,6aR)-1-Acetyl-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl]pentanoic acid	<chem>CC(=O)N1C2CSC(C2NC1=O)CCCC(=O)O</chem>		UNDER DEVELOPMENT
38.13			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Hexyl-biotin	<chem>CCCCCCC(CCCC1C2C(CS1)NC(=O)N2)C(=O)O</chem>		UNDER DEVELOPMENT
38.14			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-[(3aS,4S,6aR)-2-Oxo-1,3,3a,4,6,6a-hexahydrothieno[3,4-d]imidazol-4-yl]-2-oxopentanoic acid	<chem>C1C2C(C(S1)CCCC(=O)C(=O)O)NC(=O)N2</chem>		UNDER DEVELOPMENT

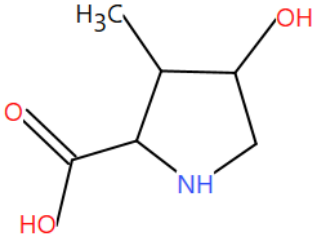
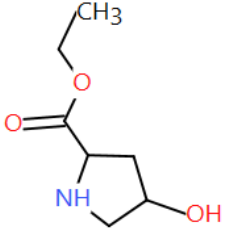
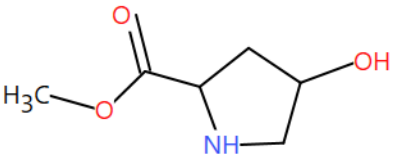
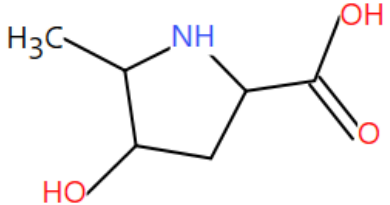
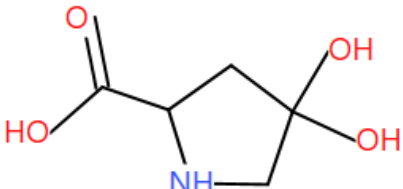
38.15			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(3a <i>S</i> ,4 <i>S</i> ,6a <i>R</i>)-4-(4-carboxybutyl)-2-oxo-3a,4,6,6a-tetrahydro-1 <i>H</i> -thieno[3,4- <i>d</i>]imidazole-3-carboxylic acid	<chem>C1C2C(C(S1)CCCC(=O)O)N(C(=O)N2)C(=O)O</chem>		UNDER DEVELOPMENT
38.16			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Biotin propyl ester; Propyl biotinate	<chem>CCCOC(=O)CCCCC1C2C(CS1)NC(=O)N2</chem>		UNDER DEVELOPMENT
38.17			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	5-[(3a <i>R</i> ,4 <i>R</i> ,6a <i>S</i>)-3-Methyl-2-oxo-3a,4,6,6a-tetrahydro-1 <i>H</i> -thieno[3,4- <i>d</i>]imidazol-4-yl]pentanoic acid	<chem>CN1C2C(CSC2CCCC(=O)O)NC1=O</chem>		UNDER DEVELOPMENT
38.18			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>N</i> -Hexylbiotin	<chem>CCCCCCN1C2CSC(C2N1C=O)CCCC(=O)O</chem>		UNDER DEVELOPMENT
39	79-83-4		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	D-Pantothenic acid; Vitamin B5;	<chem>CC(C)(CO)C(O)C(=O)NCCC(=O)O</chem>		https://foodb.ca/compounds/FDB030151 [164]

39.1	81-13-0	201327 3	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Dexpanthenol; <i>D</i> -Panthenol; Pantothenol; <i>D</i> -Pantothenyl alcohol; Dexpanthenol	<chem>CC(C)(CO)C(C(=O)NCC CO)O</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PANTOTHENYLALCOHOL [205]
39.2	599-54-2	209965 4	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>DL</i> -Pantothenic acid; 3-(2,4- Dihydroxy-3,3- dimethylbutanami do)propanoic acid	<chem>CC(C)(CO)C(O)C(=O)NC CC(O)=O</chem>		https://foodb.ca/compounds/FDB008322 [206]
39.3	18679- 90-8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>D</i> - Homopantothenic acid; Pantocalcin; Hopantenic acid	<chem>CC(C)(CO)C(C(=O)NCC CC(=O)O)O</chem>		UNDER DEVELOPMENT
39.4	50692- 78-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Methyl <i>D</i> - pantothenate; (<i>R</i>)-Methyl 3- (2,4-dihydroxy- 3,3- dimethylbutanami do)propanoate	<chem>CC(C)(CO)C(C(=O)NCC C(=O)OC)O</chem>		UNDER DEVELOPMENT
39.5			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Pantoylglycin; <i>N</i> -(2,4- Dihydroxy-3,3- dimethylbutanoyl) glycine	<chem>CC(C)(CO)C(C(=O)NCC(=O)O)O</chem>		UNDER DEVELOPMENT

39.6	1977-34-0	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	α -Hydroxyhomopantothenic acid; 4-(2,4-Dihydroxy-3,3-dimethylbutyramido)-2-hydroxybutyric acid	<chem>CC(C)(CO)C(C(=O)NCC(C(=O)O)O)O</chem>		UNDER DEVELOPMENT
39.7	1977-35-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	β -Hydroxyhomopantothenic acid; 4-(2,4-Dihydroxy-3,3-dimethylbutyramido)-3-hydroxybutyric acid	<chem>CC(C)(CO)C(C(=O)NCC(C(C(=O)O)O)O)O</chem>		UNDER DEVELOPMENT
39.8	2545-82-6	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	ω -Methyl pantothenic acid; N-(2,4-Dihydroxy-3,3-dimethyl-1-oxopentyl)- β -alanine	<chem>CC(C(C)(C)C(C(=O)NCC(C(=O)O)O)O)O</chem>		UNDER DEVELOPMENT
39.9	10527-68-1	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Ethyl pantothenate	<chem>CCOC(=O)CCNC(=O)C(C(C)CO)O</chem>		UNDER DEVELOPMENT

39.10	4417-88-3		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	2,4-Dihydroxy- <i>N</i> -(2-hydroxyethyl)-3,3-dimethylbutanamide	<chem>CC(C)(CO)C(C(=O)NCCO)O</chem>		UNDER DEVELOPMENT
39.11			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(2 <i>R</i>)- <i>N</i> -(3,4-dihydroxybutyl)-2,4-dihydroxy-3,3-dimethylbutanamide	<chem>CC(C)(CO)C(C(=O)NCCC(O)CO)O</chem>		UNDER DEVELOPMENT
39.12			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	3-[[<i>(2R)</i> -2-Hydroxy-3,3-dimethyl-4-(3-oxobutanoyloxy)butanoyl]amino]propanoic acid	<chem>CC(=O)CC(=O)OCC(C)(C)C(C(=O)NCCC(=O)O)O</chem>		UNDER DEVELOPMENT
39.13	137-08-6	2052789	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Calcium pantothenate; <i>D</i> -Calcium pantothenate; Pantholin; Calpan;	<chem>CC(C)(CO)C(C(=O)NCC(=O)[O-])O.CC(C)(CO)C(C(=O)NCCC(=O)[O-])O.[Ca+2]</chem>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div>	https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=CALCIUMPANTOTHENATE [218]

40	51-35-4	2000919	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	L-Hydroxyproline; (2S,4R)-4-hydroxypyrrolidine-2-carboxylic acid; trans-4-Hydroxy-L-proline	<chem>OC1CNC(C1)C(=O)=O</chem>		https://www.hfpapp.external.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HYDROXYPROLINE [165, 231]
40.1	4298-08-2	6394702	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	<i>trans</i> -3-Hydroxy-L-proline; (2S,3S)-3-Hydroxypyrrolidine-2-carboxylic acid; (3S)-3-Hydroxy-L-proline	<chem>C1CNC(C1O)C(=O)O</chem>		UNDER DEVELOPMENT
40.2	23161-63-9		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(2S,3S,4S)-3,4-Dihydroxypyrrolidine-2-carboxylic acid; (3S,4S)-3,4-Dihydroxy-L-proline	<chem>C1C(C(C(N1)C(=O)O)O)O</chem>		UNDER DEVELOPMENT
40.3	25323-55-1		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Acetoxypyrrolidine-2-carboxylic acid; 4-(Acetyloxy)proline	<chem>CC(=O)OC1CC(NC1)C(=O)O</chem>		UNDER DEVELOPMENT

40.4	333354-55-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(3 <i>R</i> ,4 <i>R</i>)-4-Hydroxy-3-methyl- <i>L</i> -proline; (2 <i>S</i> ,3 <i>R</i> ,4 <i>R</i>)-4-Hydroxy-3-methylpyrrolidine-2-carboxylic acid	CC1C(CNC1C(=O)O)O		UNDER DEVELOPMENT
40.5	61478-25-9	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	(2 <i>S</i> ,4 <i>R</i>)-Ethyl 4-hydroxypyrrolidine-2-carboxylate; 4-Hydroxy- <i>L</i> -proline ethyl ester	CCOC(=O)C1CC(CN1)O		UNDER DEVELOPMENT
40.6	1499-56-5	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Methyl (2 <i>S</i> ,4 <i>R</i>)-4-hydroxypyrrolidine-2-carboxylate; <i>trans</i> -4-Hydroxy- <i>L</i> -proline methyl ester	COC(=O)C1CC(CN1)O		UNDER DEVELOPMENT
40.7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Hydroxy-5-methyl-prolin; (2 <i>S</i>)-4-Hydroxy-5-methylpyrrolidine-2-carboxylic acid	CC1C(CC(N1)C(=O)O)O		UNDER DEVELOPMENT
40.8		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	4-Dihydroxy- <i>l</i> -proline; (2 <i>S</i>)-4,4-Dihydroxypyrrolidine-2-carboxylic acid	C1C(NCC1(O)O)C(=O)O		UNDER DEVELOPMENT

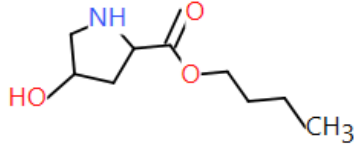
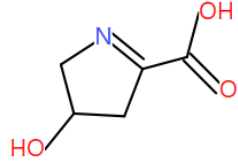
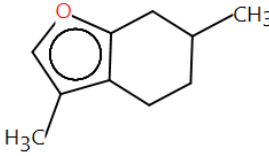
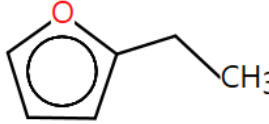
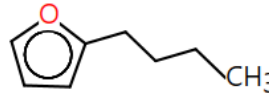
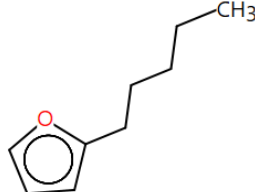
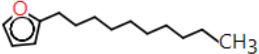
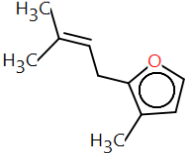
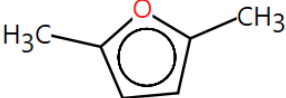
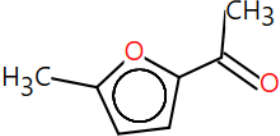
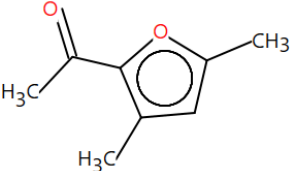
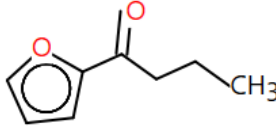
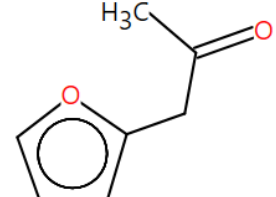
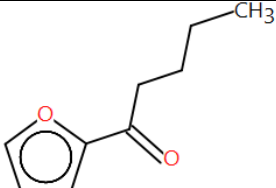
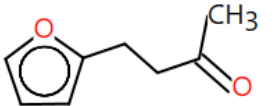
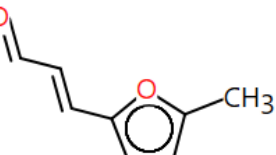
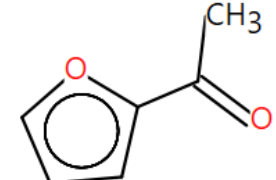
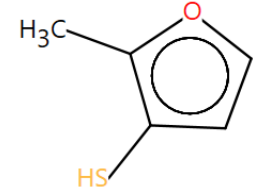
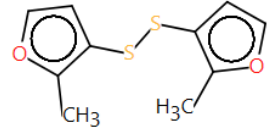
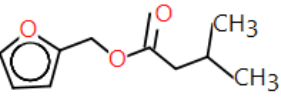
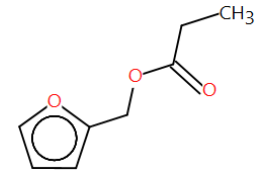
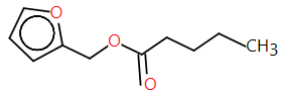
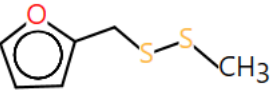
40.9			FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	Hydroxyproline butylester; Butyl (2 <i>S</i> ,4 <i>R</i>)-4-hydroxypyrrolidine-2-carboxylate	CCCCOC(=O)C1CC(NC1)O		UNDER DEVELOPMENT
40.10	9054-77-7		FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Pyrroline-4-hydroxy-2-carboxylate; 3-Hydroxy-3,4-dihydro-2 <i>H</i> -pyrrole-5-carboxylic acid	C1C(CN=C1C(=O)O)O		https://foodb.ca/compounds/FDB022921 [224]

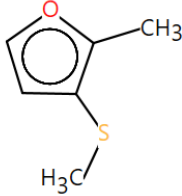
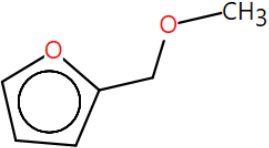
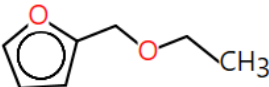
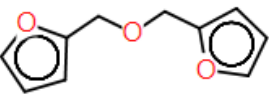
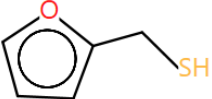
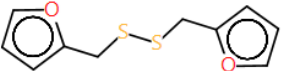
Table. 3 New 241 chemicals used as Food components

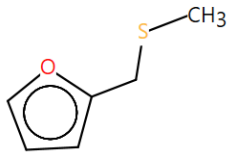
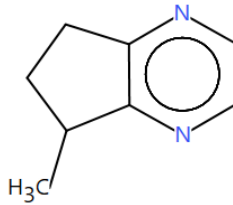
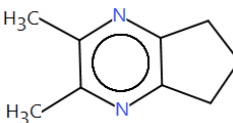
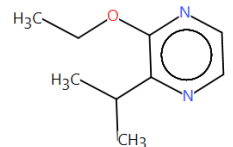
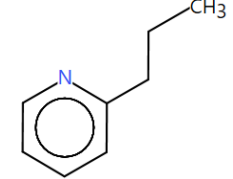
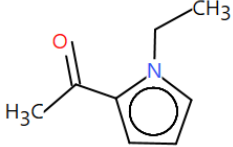
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1	494-90-6	207-795-5	FEMA number: 3235 FEMA GRAS number: 4, 25 JECFA number: 758 FL No: CoE No:	Menthofuran	CC1CCc2c(C)coc2C1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TETRAHYDRODIMETHYLBENZOFURAN
2	3208-16-0	221-714-0	FEMA number: 3673 FEMA GRAS number: 13 JECFA number: 1489 FL No: 13.092 CoE No: 11706	2-Ethylfuran	CCc1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLFURAN
3	4466-24-4	224-732-7	FEMA number: 4081 FEMA GRAS number: 22 JECFA number: 1490 FL No: 13.103	2-butylfuran	CCCCc1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=BUTYLFURAN

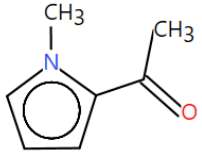
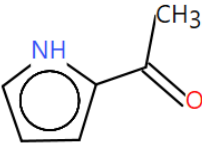
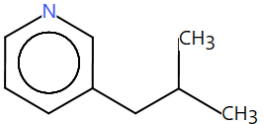
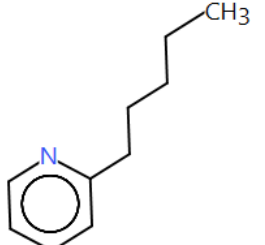
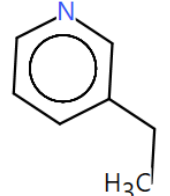
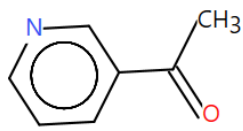
			CoE No: 10927				
4	3777-69-3	223-234-7	FEMA number: 3317 FEMA GRAS number: 5, 25 JECFA number: 1491 FL No: 13.059 CoE No: 10966	2-Pentylfuran	CCCCC1CCCO1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PENTYLFURAN
5	83469-85-6		FEMA number: 4090 FEMA GRAS number: 22 JECFA number: 1493 FL No: 13.106 CoE No:	2-Decylfuran	CCCCCCCCC1CCCO1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DECYLFURAN
6	15186-51-3		FEMA number: 4174 FEMA GRAS number: 22 JECFA number: 1494 FL No: 13.148 CoE No:	3-Methyl-2-(3-methylbut-2-enyl)furan	CC(C)=CCc1occc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLMETHYLBUTENYLFURAN
7	625-86-5	2109143	FEMA number: 4106 FEMA GRAS number: 22 JECFA number: 1488 FL No: 13.029 CoE No: 2208	2,5-Dimethylfuran	Cc1ccc(C)o1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLFURAN
8	1193-79-9	2147791	FEMA number: 3609 FEMA GRAS number: 12, 25 JECFA number: 1504 FL No: 13.083 CoE No: 11038	2-Acetyl-5-methylfuran	CC(=O)c1ccc(C)o1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLMETHYLFURAN
9	22940-86-9	607-185-2	FEMA number: 4071 FEMA GRAS number: 22 JECFA number: 1505 FL No: 13.083 CoE No:	2-Acetyl-3,5-dimethylfuran	CC(=O)c1oc(C)cc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLDIMETHYLFURAN235

10	4208-57-5	609-987-8	FEMA number: 4083 FEMA GRAS number:22 JECFA number: 1507 FL No: 13.105 CoE No:	2-Butyrylfuran	CCCC(=O)c1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=BUTYRYLFURAN
11	6975-60-6	230-234-0	FEMA number: 2496 FEMA GRAS number: 3 JECFA number: 1508 FL No: 13.045 CoE No: 11837	1-(2-Furyl)propan-2-one	CC(=O)Cc1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURYLPROPANONE
12	3194-17-0		FEMA number: 4192 FEMA GRAS number:22 JECFA number: 1509 FL No: 13.163 CoE No:	2-Pentanoylfuran	CCCCC(=O)c1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PENTANOYLFURAN
13	699-17-2	211-831-5	FEMA number: 4120 FEMA GRAS number:22 JECFA number: 1510 FL No: 13.138 CoE No: 11084	1-(2-Furyl)butan-3-one	CC(=O)CCc1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURYLBTANONE
14	5555-90-8		FEMA number: 4175 FEMA GRAS number:22 JECFA number: 1499 FL No: 13.150 CoE No:	3-(5-Methyl-2-furyl)prop-2-enal	Cc1ccc(C=CC=O)o1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLFURYLPROPENAL
15	1192-62-7	214-757-1	FEMA number: 3163 FEMA GRAS number: 4,25 JECFA number: 1503 FL No: 13.054 CoE No:	2-Acetylfuran	CC(=O)c1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURYLMETHYLKETONE

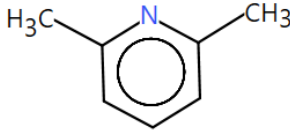
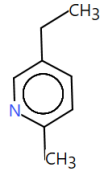
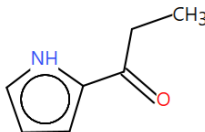
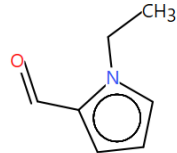
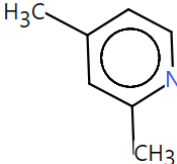
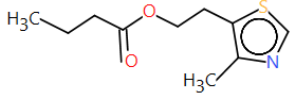
16	28588-74-1	249-094-7	FEMA number: 3188 FEMA GRAS number: 4 JECFA number: 1060 FL No: 13.055 CoE No: 11678	2-Methylfuran-3-thiol	Cc1occc1S		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLFURANTHIOL
17	28588-75-2	249-095-2	FEMA number: 3259 FEMA GRAS number: 5 JECFA number: 1066 FL No: 13.016 CoE No: 11678	bis-(2-Methyl-3-furyl) disulfide	Cc1occc1SSc1ccoc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=bismethylfuryldisulfide
18	13678-60-9	237-171-8	FEMA number: 3283 FEMA GRAS number: 5 JECFA number: 743 FL No: 13.057 CoE No: 10642	Furfuryl isovalerate	CC(C)CC(=O)OCc1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURFURYL METHYLBUTANOATE
19	623-19-8	210-776-4	FEMA number: 3346 FEMA GRAS number: 6 JECFA number: 740 FL No: 13.062 CoE No: 10646	Furfuryl propionate	CCC(=O)OCc1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURFURYLPROPIONATE
20	36701-01-6	253-160-0	FEMA number: 3397 FEMA GRAS number: 7, 25 JECFA number: 741 FL No: 13.068 CoE No: 10647	Furfuryl valerate	CCCCC(=O)OCc1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURFURYL PENTANOATE
21	57500-00-2	260-773-7	FEMA number: 3362 FEMA GRAS number: 6 JECFA number: 1078 FL No: 13.064 CoE No: 11513	Methyl furfuryl disulfide	CSSCc1ccco1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLFURFURYLDISULFIDE

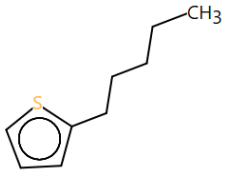
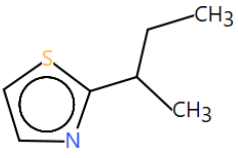
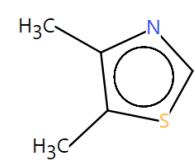
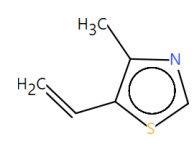
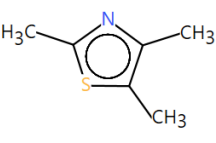
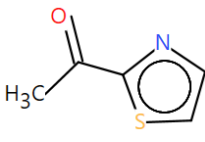
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23	13679-46-4 Class II, Class III	237-176-5	FEMA number: 3159 FEMA GRAS number: 4,25 JECFA number: 1520 FL No: 13.052 CoE No: 10944	Furfuryl methyl ether	COCC ₁ cccc ₁ O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURFURYL METHYL ETHER
24	6270-56-0 Class II, Class III	228-454-7	FEMA number: 4114 FEMA GRAS number: 22 JECFA number: 1521 FL No: 13.123 CoE No: 10940	Ethyl furfuryl ether	CCOCC ₁ cccc ₁ O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLFURFURYL ETHER
25	4437-22-3 Class II, Class III	630-432-0	FEMA number: 3337 FEMA GRAS number: 6 JECFA number: 1522 FL No: 13.061 CoE No: 10930	Difurfuryl ether	C(OCC ₁ cccc ₁ O)c ₁ cccc ₁ O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIFURFURYLETH ER
26	98-02-2	202-628-2	FEMA number: 2493 FEMA GRAS number: 3, 25 JECFA number: 1072 FL No: 07.142 CoE No: 11035	2-Furanmethanethiol	SCc ₁ cccc ₁ O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=FURFURYL MERCAPTAN
27	4437-20-1	224-649-6	FEMA number: 3146 FEMA GRAS number: 4 JECFA number: 1081 FL No: 13.050 CoE No: 11480	Difurfuryl disulfide	C(SSC ₁ cccc ₁ O)c ₁ cccc ₁ O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DITHIODIMETHYLENEDIFURAN

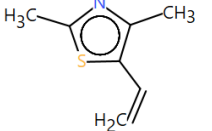
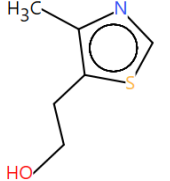
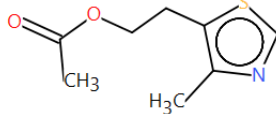
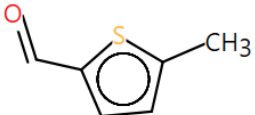
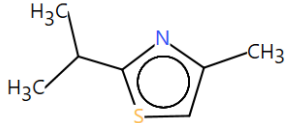
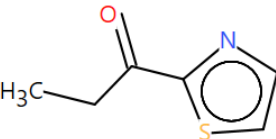
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29	23747-48-0	245-864-1	FEMA number: 3306 FEMA GRAS number: 5, 25 JECFA number: 781 FL No: 14.037 CoE No: 2314	6,7-Dihydro-5-methyl-5H-cyclopentapyrazine	CC1CCc2nccnc12		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLDIHYDROCYCLOPENTAPYRAZINE
30	38917-63-4	639-110-4	FEMA number: 3917 FEMA GRAS number: 19 JECFA number: 7882 FL No: 14.098 CoE No: 11309	6,7-Dihydro-2,3-dimethyl-5H-cyclopentapyrazine	Cc1nc2CCCc2nc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIHYDRODIMETHYLCYCLOPENTAPYRAZINE
31	72797-16-1	276-847-7	FEMA number: 4632 FEMA GRAS number: 24 JECFA number: 2129 FL No: CoE No:	2-Ethoxy-3-isopropylpyrazine	CCOc1nccnc1C(C)C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHOXYISOPROPYLPYRAZINE
32	622-39-9	210-732-4	FEMA number: 4065 FEMA GRAS number: 21 JECFA number: 1322 FL No: 14.164 CoE No:	2-Propylpyridine	CCCc1ccccn1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PROPYLPYRIDINE
33	39741-41-8	639-095-4	FEMA number: 3147 FEMA GRAS number: 4 JECFA number: 1305 FL No: 14.045 CoE No: 11371	2-Acetyl-1-ethylpyrrole	CCn1cccc1C(C)=O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLACETYLPYRROLE

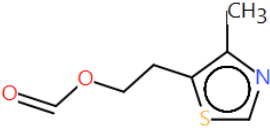
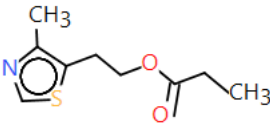
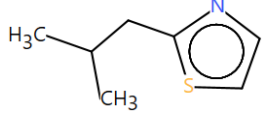
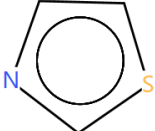
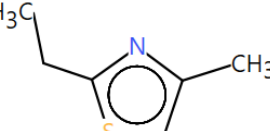
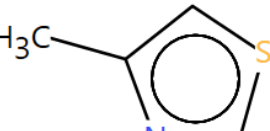
34	932-16-1	213-247-6	FEMA number: 3184 FEMA GRAS number: 4 JECFA number: 1306 FL No: 14.046 CoE No: 11373	2-Acetyl-1-methylpyrrole	<chem>CC(=O)c1cccn1C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLACETYLPYRROLE
35	1072-83-9	214-016-2	FEMA number: 3202 FEMA GRAS number: 4, 25 JECFA number: 1307 FL No: 14.047 CoE No: 11721	2-Acetylpyrrole	<chem>CC(=O)c1ccc[nH]1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLPYRROLYLKETONE
36	14159-61-6	238-003-6	FEMA number: 3371 FEMA GRAS number: 6 JECFA number: 1312 FL No: 14.059 CoE No: 11396	3-Isobutylpyridine	<chem>CC(C)Cc1cccn1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLPROPYLPYRIDINE32
37	2294-76-0	218-937-0	FEMA number: 3383 FEMA GRAS number: 6, 7 JECFA number: 1313 FL No: 14.060 CoE No: 11412	2-Pentylpyridine	<chem>CCCCC1CCCCN1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PENTYLPYRIDINE
38	536-78-7	208-647-2	FEMA number: 3394 FEMA GRAS number: 7, 25 JECFA number: 1315 FL No: 14.061 CoE No: 11386	3-Ethylpyridine	<chem>CCc1cccn1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLPYRIDINE
39	350-03-8	206-496-7	FEMA number: 3424 FEMA GRAS number: 8, 25 JECFA number: 1316 FL No: 09.681 CoE No:	3-Acetylpyridine	<chem>CC(=O)c1cccn1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLPYRIDINE

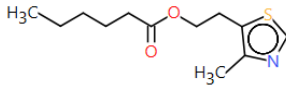
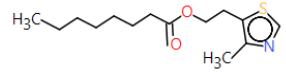
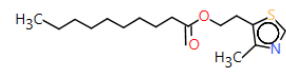
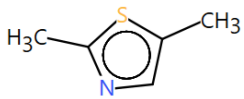
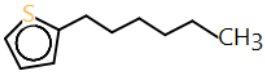
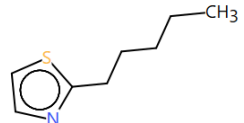
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41	104-90-5	203-250-0	FEMA number: 3546 FEMA GRAS number: 11 JECFA number: 1318 FL No: 14.066 CoE No: 11385	5-Ethyl-2-methylpyridine	<chem>CCc1ccc(C)nc1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLMETHYLPYRIDINE
42	1073-26-3	214-026-7	FEMA number: 3614 FEMA GRAS number: 12 JECFA number: 1319 FL No: 14.068 CoE No: 11942	2-Propionylpyrrole	<chem>CCC(=O)c1ccc[nH]1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PROPIONYLPYRROLE
43	2167-14-8, 932-16-1	639-017-9	FEMA number: 4317 FEMA GRAS number: 23 JECFA number: 2150 FL No: 14.169 CoE No: 11373	1-Ethyl-2-pyrrolicarboxaldehyde	<chem>CCn1cccc1C=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLPYRROLECARBOXALDEHYDE
44	108-47-4	203-586-8	FEMA number: 4389 FEMA GRAS number: 23 JECFA number: 2151 FL No: 14.104 CoE No:	2,4-Dimethylpyridine	<chem>Cc1ccnc(C)c1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLPYRIDINE24
45	94159-31-6	303-209-8	FEMA number: 4277 FEMA GRAS number: 23 JECFA number: 1753 FL No: CoE No:	2-(4-Methyl-5-thiazolyl)ethyl butanoate	<chem>CCCC(=O)OCCc1scnc1C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIAZOLEETHYLBUTANOATE

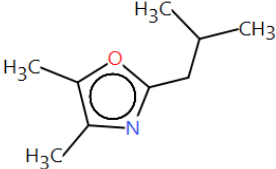
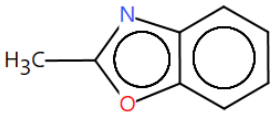
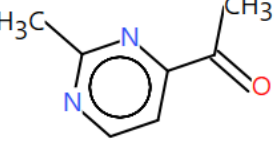
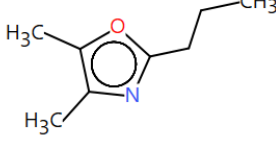
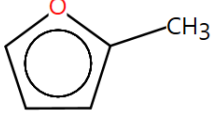
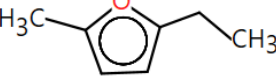
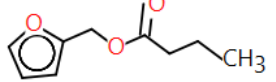
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47	18277-27-5	242-154-3	FEMA number: 3372 FEMA GRAS number: 6 JECFA number:1033 FL No: 15.022 CoE No: 11598	2-(sec-Butyl)thiazole	CCC(C)c1nccs1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLPROPYLTIAZOLE
48	3581-91-7	222-703-3	FEMA number: 3274 FEMA GRAS number: 5 JECFA number:1035 FL No: 15.017 CoE No: 11606	4,5-Dimethylthiazole	Cc1ncsc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLTHIAZOLE45
49	1759-28-0	217-160-4	FEMA number: 3313 FEMA GRAS number: 5 JECFA number:1038 FL No: 15.018 CoE No: 11633	4-Methyl-5-vinylthiazole	Cc1ncsc1C=C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLVINYLTHIAZOLE
50	13623-11-5	2371079	FEMA number: 3325 FEMA GRAS number: 5 JECFA number:1036 FL No: 15.019 CoE No: 11650	2,4,5-Trimethylthiazole	Cc1nc(C)c(C)s1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TRIMETHYLTHIAZOLE
51	24295-03-2	246-134-5	FEMA number: 3328 FEMA GRAS number: 6, 25 JECFA number:1041 FL No: 15.020 CoE No: 11726	2-Acetylthiazole	CC(=O)c1nccs1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLTHIAZOLE

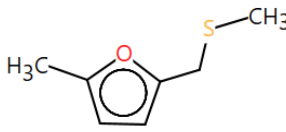
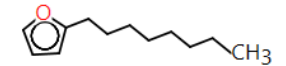
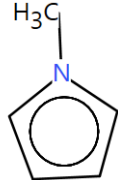
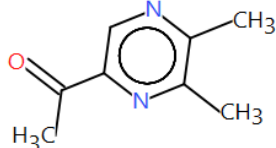
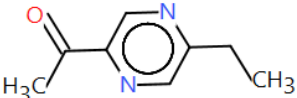
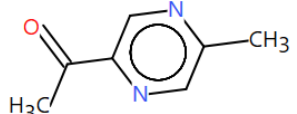
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53	137-00-8	205-272-6	FEMA number: 3204 FEMA GRAS number: 4, 25 JECFA number:1031 FL No: 15.014 CoE No: 11621	5-(2-Hydroxyethyl)-4-methylthiazole	<chem>Cc1ncsc1CCO</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIAZOLEETHANOL
54	656-53-1	211-515-7	FEMA number: 3205 FEMA GRAS number: 4 JECFA number:1054 FL No: 15.015 CoE No: 11620	4-Methyl-5-(2-acetoxyethyl)thiazole	<chem>CC(=O)OCCc1scnc1C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIAZOLEETHANOLACETATE
55	13679-70-4	237-178-6	FEMA number: 3209 FEMA GRAS number: 4, 25 JECFA number:1050 FL No: 15.004 CoE No: 2203	5-Methyl-2-thiophenecarbaldehyde	<chem>Cc1ccc(C=O)s1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIOPHENECARBOXALDEHYDE
56	15679-13-7	239-758-4	FEMA number: 3555 FEMA GRAS number: 11 JECFA number:1037 FL No: 15.026 CoE No:	2-Isopropyl-4-methylthiazole	<chem>CC(C)c1nc(C)cs1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ISOPROPYLMETHYLTHIAZOLE
57	43039-98-1		FEMA number: 3611 FEMA GRAS number: 12 JECFA number:1042 FL No: 15.027 CoE No:	2-Propionylthiazole	<chem>CCC(=O)c1nccs1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PROPIONYLTIAZOLE

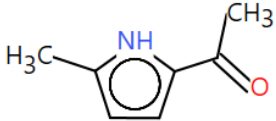
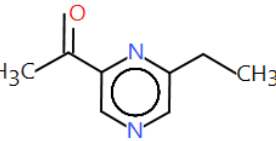
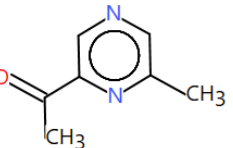
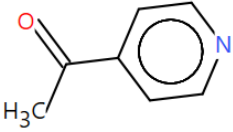
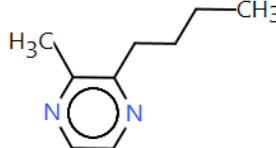
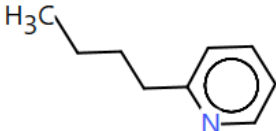
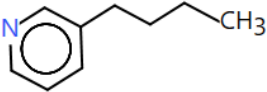
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59	324742-96-3	639-091-2	FEMA number: 4276 FEMA GRAS number: 23 JECFA number:1752 FL No: CoE No:	2-(4-Methyl-5-thiazolyl)ethyl propionate	CCC(=O)OCCc1scnc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIAZOLYLETHYLPROPIO NATE
60	18640-74-9	242-470-1	FEMA number: 3134 FEMA GRAS number: 4 JECFA number:1034 FL No: 15.013 CoE No: 11618	2-Isobutylthiazole	CC(C)Cc1ncs1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ISOBUTYLTHIAZO LE
61	288-47-1	2060213	FEMA number: 3615 FEMA GRAS number: 12 JECFA number:1032 FL No: 15.028 CoE No:	Thiazole	c1cscn1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=THIAZOLE
62	15679-12-6	239-757-9	FEMA number: 3680 FEMA GRAS number: 13, 25 JECFA number:1044 FL No: 15.033 CoE No: 11612	2-Ethyl 4-methylthiazole	CCc1nc(C)cs1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLMETHYLTH IAZOLE24
63	693-95-8	211-764-1	FEMA number: 3716 FEMA GRAS number: 13 JECFA number:1043 FL No: 15.035 CoE No: 11627	4-Methylthiazole	Cc1cscn1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIAZOL E

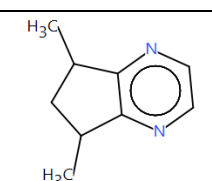
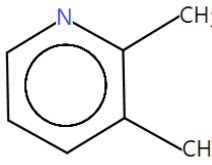
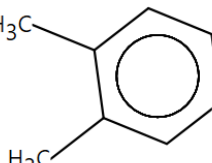
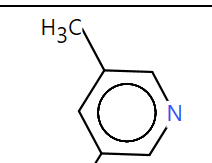
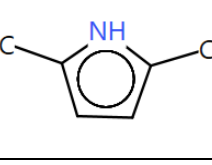
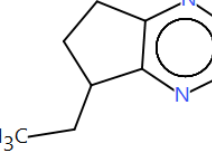
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65	163266-17-9	639-026-8	FEMA number: 4280 FEMA GRAS number: 23 JECFA number:1756 FL No: CoE No:	2-(4-Methyl-5-thiazolyl)ethyl octanoate	CCCCCCC(=O)OCCc1scnc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIAZOLYLETHYLOCTANOATE
66	101426-31-7	639-004-8	FEMA number: 4281 FEMA GRAS number: 23 JECFA number:1757 FL No: CoE No:	2-(4-Methyl-5-thiazolyl)ethyl decanoate	CCCCCCCCC(=O)OCc1scnc1C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIAZOLYLETHYLDECANOATE
67	4175-66-0	806-489-4	FEMA number: 4035 FEMA GRAS number: 21 JECFA number:1758 FL No: 15.063 CoE No:	2,5-Dimethylthiazole	Cc1cnc(C)s1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLTHIAZOLE25
68	18794-77-9	242-579-4	FEMA number: 4137 FEMA GRAS number: 22 JECFA number:1764 FL No: 15.076 CoE No: 11616	2-Hexylthiophene	CCCCCCc1cccs1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HEXYLTHIOPHENE
69	37645-62-8		FEMA number: 4641 FEMA GRAS number: 24 JECFA number:2108 FL No: CoE No:	2-Pentylthiazole	CCCCC1nccs1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PENTYLTHIAZOLE

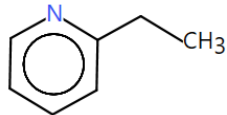
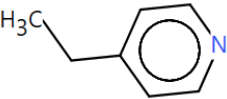
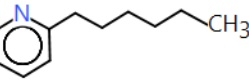
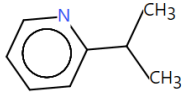
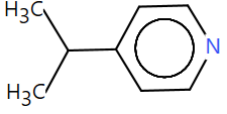
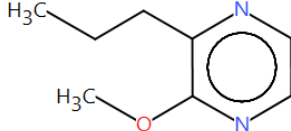
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71	3777-71-7 Class II, Class III	223-236-8	FEMA number: 3401 FEMA GRAS number: 7 JECFA number:1492 FL No: 13.069 CoE No: 10952	2-Heptylfuran	<chem>CCCCCCC1CCCO1</chem>		https://www.hfpappexernal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HEPTYLFURAN
72	623-15-4	2107743	FEMA number: 1511 FEMA GRAS number: JECFA number: 1511 FL No: 13.044 CoE No: 11838	4-(2-Furyl)but-3-en-2-one	<chem>CC(=O)C=Cc1ccco1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
73	20662-84-4	243-952-4	FEMA number:4394 FEMA GRAS number: 23 JECFA number: 1553 FL No: 13.169 CoE No: 11424	Trimethyloxazole	<chem>Cc1nc(C)c(C)o1</chem>		https://www.hfpappexernal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TRIMETHYLOXAZOLE
74	30408-61-8	250-181-7	FEMA number:4395 FEMA GRAS number: 23 JECFA number: 1554 FL No: 13.118 CoE No:	2,5-Dimethyl-4-ethyloxazole	<chem>CCc1nc(C)oc1C</chem>		https://www.hfpappexernal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLETHYLOXAZOLE
75	53833-30-0	258-815-4	FEMA number:3672 FEMA GRAS number: 13 JECFA number: 1555 FL No: 13.091 CoE No: -	4,5-Dimethyl-2-ethyloxazole	<chem>CCc1nc(C)c(C)o1</chem>		https://www.hfpappexernal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLDIMETHYLOXAZOLE

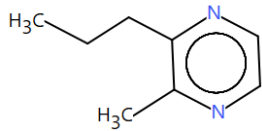
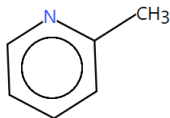
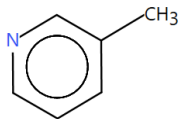
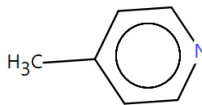
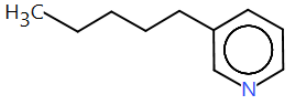
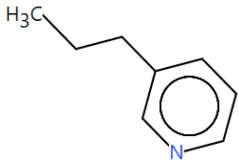
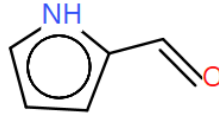
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77	95-21-6	202-399-9	FEMA number: 4398 FEMA GRAS number: 23 JECFA number: 1557 FL No: 13.154 CoE No: -	2-Methyl-4,5-benzo-oxazole	<chem>Cc1nc2ccccc2o1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLBENZOXAZOLE
78	67860-38-2	805-272-1	FEMA number: 3654 FEMA GRAS number: 13 JECFA number: 1565 FL No: 14.070 CoE No:	4-Acetyl-2-methylpyrimidine	<chem>CC(=O)c1ccnc(C)n1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLMETHYLPYRIMIDINE
79	53833-32-2	258-817-5	FEMA number: 4396 FEMA GRAS number: 23 JECFA number: 1569 FL No: 13.112 CoE No: 11379	4,5-Dimethyl-2-propyloxazole	<chem>CCCC1nc(C)c(C)o1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PROPYLDIMETHYLOXAZOLE
80	534-22-5	248-253-8	FEMA number: 4179 FEMA GRAS number: 22 JECFA number: 1487 FL No: 13.030 CoE No: 2209	2-Methylfuran	<chem>Cc1ccco1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLFURAN
81	1703-52-2	216-937-5	FEMA number: FEMA GRAS number: JECFA number: FL No: 13.125 CoE No: 10942	2-Ethyl-5-methylfuran	<chem>CCc1ccc(C)o1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
82	623-21-2	210-779-0	FEMA number: FEMA GRAS number: JECFA number: 759	Furfuryl butyrate	<chem>CCCC(=O)OCc1ccco1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=

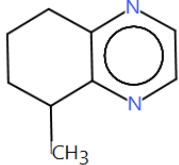
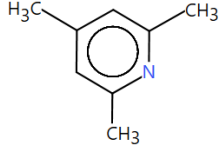
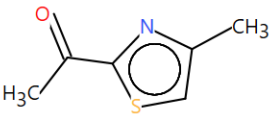
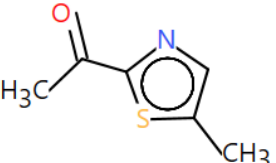
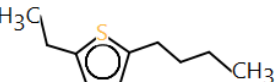
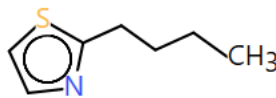
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83	13679-60-2		FEMA number: FEMA GRAS number: JECFA number: FL No: 13.145 CoE No: 11522	Methyl 5-methylfurfuryl sulfide	<chem>CSCc1ccc(C)o1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
84	4179-38-8	224-049-4	FEMA number: FEMA GRAS number: JECFA number: FL No: 13.162 CoE No: 10965	2-Octylfuran	<chem>CCCCCCCCc1ccco1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
85	96-54-8	202-513-7	FEMA number: FEMA GRAS number: JECFA number: FL No: CoE No:	1-Methylpyrrole	<chem>Cn1cccc1</chem>		https://foodb.ca/compounds/FDB011113
86	54300-10-6		FEMA number: FEMA GRAS number: JECFA number: FL No: 14.081 CoE No:	5-Acetyl-2,3-dimethylpyrazine	<chem>CC(=O)c1cnc(C)c(C)n1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
87	43108-58-3		FEMA number: FEMA GRAS number: JECFA number: FL No: 14.083 CoE No:	2-Acetyl-5-ethylpyrazine	<chem>CCc1cnc(Cn1)C(C)=O</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
88	22047-27-4	865-745-3	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.084 CoE No: 11297	2-Acetyl-5-methylpyrazine	<chem>CC(=O)c1cnc(C)n1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

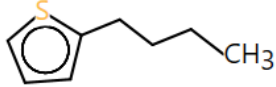
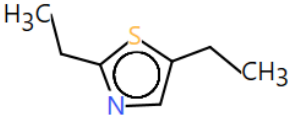
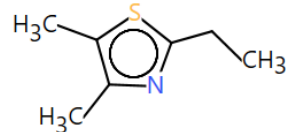
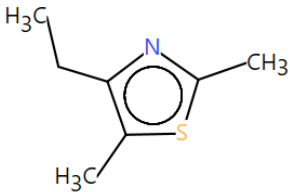
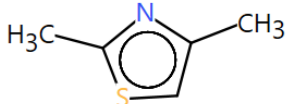
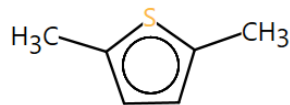
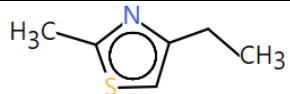
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90	34413-34-8		FEMA number: FEMA GRAS number: JECFA number: FL No: 14.086 CoE No:	2-Acetyl-6-ethylpyrazine	<chem>CCc1cncc(n1)C(C)=O</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
91	22047-26-3	866-192-0	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.087 CoE No: 11298	2-Acetyl-6-methylpyrazine	<chem>CC(=O)c1cncc(C)n1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
92	1122-54-9	214-350-9	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.089 CoE No:	4-Acetylpyridine	<chem>CC(=O)c1ccncc1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
93	15987-00-5	240-126-5	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.091 CoE No:	2-Butyl-3-methylpyrazine	<chem>CCCCc1ncnc1C</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
94	5058-19-5	225-758-1	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.092 CoE No:	2-Butylpyridine	<chem>CCCCc1cccn1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
95	539-32-2	208-715-1	FEMA number: FEMA GRAS number: JECFA number:	3-Butylpyridine	<chem>CCCCc1cccn1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

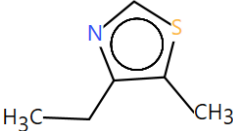
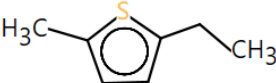
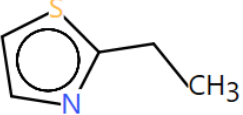
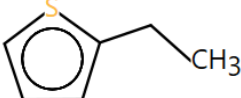
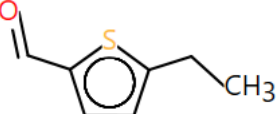
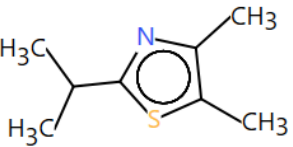
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97	583-61-9	209-514-1	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.103 CoE No:	2,3- Dimethylpyridine	Cc1ccnc1C		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
98	583-58-4	209-511-5	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.105 CoE No:	3,4- Dimethylpyridine	Cc1ccnc1C		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
99	591-22-0	209-708-6	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.106 CoE No: 11382	3,5- Dimethylpyridine	Cc1cnc(C)c1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
100	625-84-3	210-913-8	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.107 CoE No:	2,5- Dimethylpyrrole	Cc1ccc(C)[nH]1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLPYRROLE
101	52517-53-0		FEMA number: FEMA GRAS number: JECFA number: FL No: 14.113 CoE No:	5-Ethyl-6,7- dihydro-5H- cyclopentapyrazin e	CCC1CCc2ncnc12		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

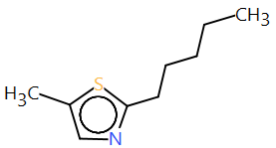
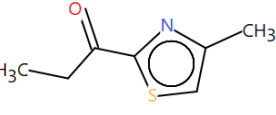
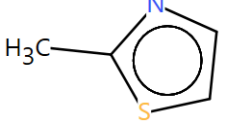
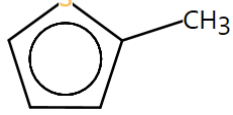
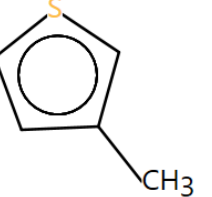
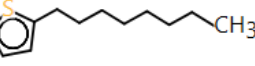
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103	536-75-4	208-646-7	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.116 CoE No: 11387	4-Ethylpyridine	CCc1ccncc1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
104	1129-69-7	214-454-4	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.117 CoE No:	2-Hexylpyridine	CCCCCCc1cccn1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
105	644-98-4	211-426-3	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.124 CoE No: 11400	2-Isopropylpyridine	CC(C)c1cccn1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
106	696-30-0	211-794-5	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.125 CoE No:	4-Isopropylpyridine	CC(C)c1ccncc1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
107	25680-57-3		FEMA number: FEMA GRAS number: JECFA number: FL No: 14.127 CoE No:	2-Methoxy-3-propylpyrazine	CCc1ncnc1OC		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

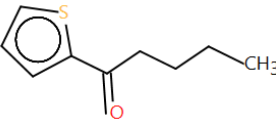
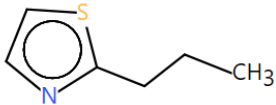
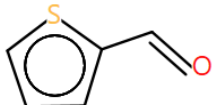
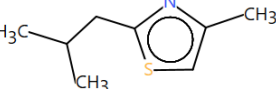
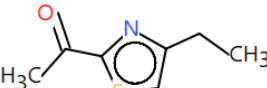
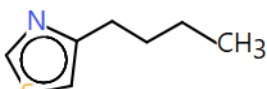

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109	109-06-8	203-643-7	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.134 CoE No: 11415	2-Methylpyridine	Cc1ccccn1		https://foodb.ca/compounds/FDB004399
110	108-99-6	203-636-9	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.135 CoE No: 11801	3-Methylpyridine	Cc1cccn1		https://foodb.ca/compounds/FDB004416
111	108-89-4	203-626-4	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.136 CoE No: 11416	4-Methylpyridine	Cc1ccncc1		https://foodb.ca/compounds/FDB004424
112	1802-20-6		FEMA number: FEMA GRAS number: JECFA number: FL No: 14.140 CoE No:	3-Pentylpyridine	CCCCC1cccn1		https://foodb.ca/compounds/FDB013462
113	4673-31-8	225-122-3	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.143 CoE No: 11419	3-Propylpyridine	CCCc1cccn1		https://foodb.ca/compounds/FDB005085
114	1003-29-8	213-705-5	FEMA number: FEMA GRAS number: JECFA number:	Pyrrole-2- carbaldehyde	O=Cc1ccc[nH]1		https://foodb.ca/compounds/FDB014879

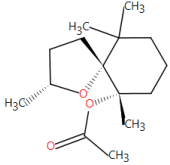
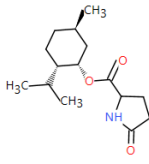
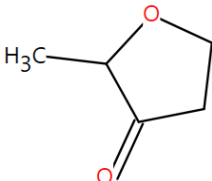
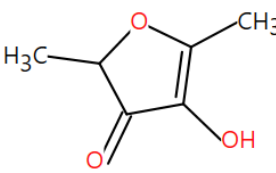
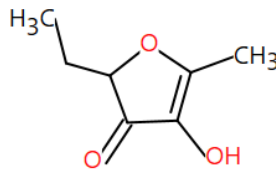
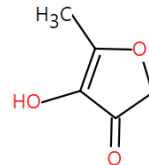
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116	108-75-8	203-613-3	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.150 CoE No:	2,4,6- Trimethylpyridine	Cc1cc(C)nc(C)c1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
117	7533-07-5	616-211-1	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.038 CoE No: 11589	2-Acetyl-4- methylthiazole	CC(=O)c1nc(C)cs1		https://foodb.ca/compounds/FDB004305
118	59303-17-2	970-994-7	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.039 CoE No:	2-Acetyl-5- methylthiazole	CC(=O)c1ncc(C)s1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
119	54411-06-2	611-139-7	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.043 CoE No:	2-Butyl-5- ethylthiophene	CCCCc1ccc(CC)s1		e-Flavis
120	37645-61-7	253-577-8	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.044 CoE No: 11597	2-Butylthiazole	CCCCc1nccs1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

121	1455-20-5	215-935-1	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.045 CoE No:	2-Butylthiophene	CCCCc1cccs1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
122	15729-76-7	239-823-7	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.052 CoE No:	2,5-Diethylthiazole	CCc1nc(CC)s1		https://foodb.ca/compounds/FDB019784
123	873-64-3	639-201-9	FEMA number: FEMA GRAS number: JECFA number: FL No:15.058 CoE No:	4,5-Dimethyl-2-ethylthiazole	CCc1nc(C)c(C)s1		https://foodb.ca/compounds/FDB019755
124	32272-57-4		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.061 CoE No:	2,5-Dimethyl-4-ethylthiazole	CCc1nc(C)sc1C		https://foodb.ca/compounds/FDB019756
125	541-58-2	208-786-9	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.062 CoE No: 11605	2,4-Dimethylthiazole	Cc1csc(C)n1		https://foodb.ca/compounds/FDB010961
126	638-02-8	211-313-9	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.064 CoE No:	2,5-Dimethylthiophene	Cc1ccc(C)s1		https://foodb.ca/compounds/FDB010966
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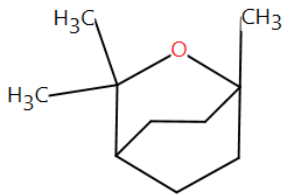
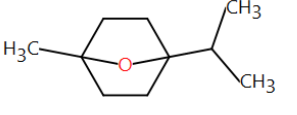
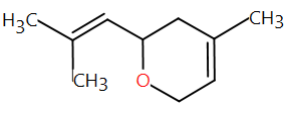
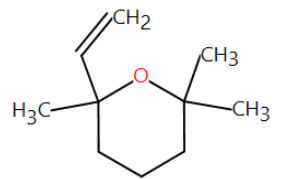
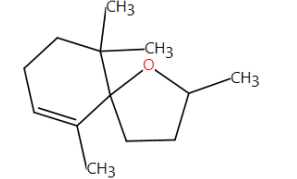
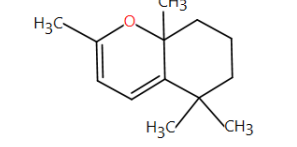
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129	40323-88-4	609-821-4	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.07 CoE No:	2-Ethyl-5- methylthiophene	CCc1ccc(C)s1		e-Flavis
130	15679-09-1	239-755-8	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.071 CoE No:	2-Ethylthiazole	CCc1nccs1		https://foodb.ca/compounds/FDB019722
131	872-55-9	212-830-2	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.072 CoE No: 11614	2-Ethylthiophene	CCc1cccs1		https://foodb.ca/compounds/FDB014059
132	36880-33-8	253-252-0	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.074 CoE No:	5-Ethylthiophene- 2-carbaldehyde	CCc1ccc(C=O)s1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
133	53498-30-9	671-357-3	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.080 CoE No:	2-Isopropyl-4,5- dimethylthiazole	CC(C)c1nc(C)c(C)s1		https://foodb.ca/compounds/FDB019761

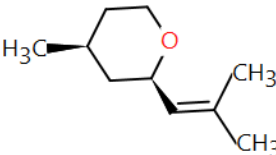
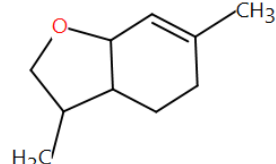
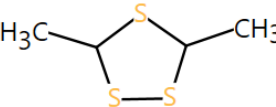
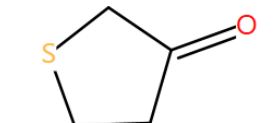
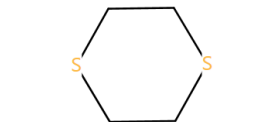
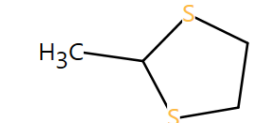
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135	13679-83-9	844-998-3	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.085 CoE No: 11622	4-Methyl-2-propionylthiazole	CCC(=O)c1nc(C)cs1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
136	3581-87-1	222-702-8	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.089 CoE No: 11626	2-Methylthiazole	Cc1nccs1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
137	554-14-3	209-063-0	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.091 CoE No: 11631	2-Methylthiophene	Cc1cccs1		https://foodb.ca/compounds/FDB011118
138	616-44-4	210-482-6	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.092 CoE No: 11632	3-Methylthiophene	Cc1ccsc1		https://foodb.ca/compounds/FDB011119
139	880-36-4	212-913-3	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.093 CoE No:	2-Octylthiophene	CCCCCCCCc1cccs1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

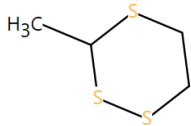
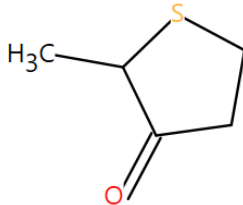
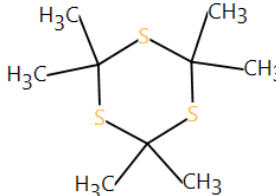
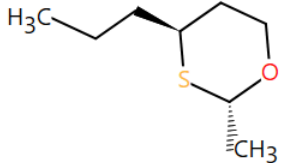
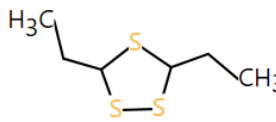
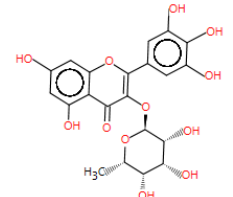
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141	17626-75-4	241-606-7	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.098 CoE No:	2-Propylthiazole	CCCc1nccs1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
142	98-03-3	202-629-8	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.107 CoE No:	Thiophene-2-carbaldehyde	O=Cc1cccs1		https://foodb.ca/compounds/FDB000911 and https://foodb.ca/compounds/FDB004320
143	61323-24-8	262-709-3	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.115 CoE No:	2-Isobutyl-4-methyl thiazole	CC(C)Cc1nc(C)cs1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
144	233665-91-3		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.116 CoE No:	2-Acetyl-4-ethylthiazole	CCc1csc(n1)C(C)=O		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
145	53833-33-3		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.118 CoE No:	4-Butylthiazole	CCCCc1csn1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
146	110-86-1	203-809-9	FEMA number: FEMA GRAS number: JECFA number:	Pyridine	c1ccncc1		https://foodb.ca/compounds/FDB014733

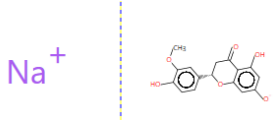
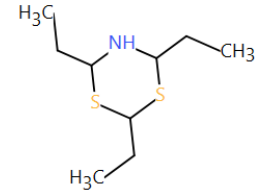
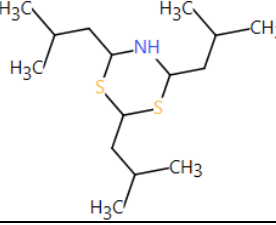
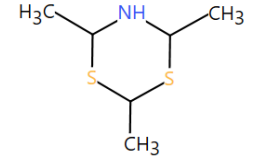
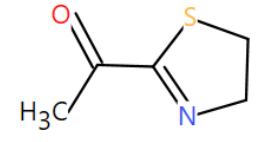
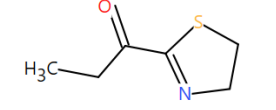
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147	57893-27-3 and 72541-09-4	261-005-3	FEMA number:3651 FEMA GRAS number: 13 JECFA number: 1647 FL No: 13.087 CoE No:	6- Acetoxydihydroth easpirane	<chem>C[C@@H]1CC[C@]2(O1)C(C)(C)CCC[C@]2(C)OC(C)=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETOXYDIHYDROTHEASPIRANE
148	52528-10-6		FEMA number:4155 FEMA GRAS number: 22 JECFA number:1858 FL No: CoE No:	Menthyl pyrrolidone carboxylate	<chem>CC(C)[C@@H]1CC[C@@H](C)C[C@H]1OC(=O)[C@H]1CCCC(=O)N1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=MENTHYPYRROLIDONECARBOXYLATE
149	3188-00-9	221-685-4	FEMA number:3373 FEMA GRAS number: 6, 7 JECFA number:1448 FL No: 13.042 CoE No: 2338	4,5-Dihydro-2- methylfuran- 3(2H)-one	<chem>CC1OCCC1=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTETRAHYDROFURANONE
150	3658-77-3	222-908-8	FEMA number:3174 FEMA GRAS number: 4, 25 JECFA number: 1446 FL No: 13.010 CoE No: 536	4-Hydroxy-2,5- dimethylfuran- 3(2H)-one	<chem>CC1OC(C)=C(O)C1=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HYDROXYDIMETHYLFURANONE
151	27538-10-9 and 27538-09-6	248-514-6	FEMA number:3623 FEMA GRAS number: 12 JECFA number: 1449 FL No: 13.084 CoE No:	2-Ethyl-4- hydroxy-5- methyl-3(2H)- furanone	<chem>CCC1OC(C)C(=O)C=1O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLHYDROXYMETHYLFURANONE245
152	19322-27-1	242-961-0	FEMA number:3635 FEMA GRAS number: 12 JECFA number: 1450 FL No: 13.085	4-Hydroxy-5- methylfuran- 3(2H)-one	<chem>CC1OCC(=O)C=1O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HYDROXYMETHY

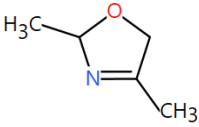
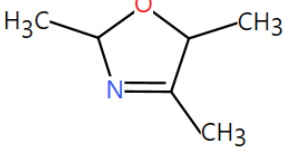
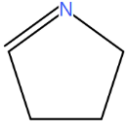
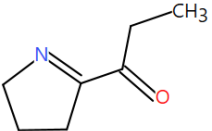
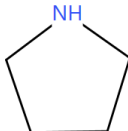
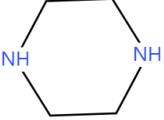
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153	4077-47-8	223-797-9	FEMA number:3664 FEMA GRAS number: 13 JECFA number: 1451 FL No: 13.089 CoE No:	2,5-Dimethyl-4-methoxyfuran-3(2H)-one	<chem>COC1C(=O)C(C)OC=1C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLMETHOXYHFURANONE
154	56058-69-6 and 7416-35-5	231-028-3	FEMA number:3665 FEMA GRAS number: 13, 25 JECFA number: 1452 FL No: 13.090 CoE No: 10937	2,2-Dimethyl-5-(1-methylprop-1-enyl)tetrahydrofuran	<chem>C1C=C(/C)C1CCC(C)(C)O1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLMETHYLPROPENYLTETRAHYDROFURAN
155	41239-48-9	255-274-6	FEMA number:3743 FEMA GRAS number: 14 JECFA number: 1453 FL No: 13.095 CoE No: 11882	2,5-Diethyltetrahydrofuran	<chem>CCC1CCC(CC)O1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIETHYLTETRAHYDROFURAN
156	13679-86-2	237-184-9	FEMA number: FEMA GRAS number: JECFA number: 1455 FL No: 13.097 CoE No: 11944	Anhydrolinalool oxide (5)	<chem>CC(=C)C1CCC(C)(O1)C=C</chem>		https://foodb.ca/compounds/FDB016168
157	4166-20-5	609-950-6	FEMA number: 3797 FEMA GRAS number: 17 JECFA number: 1456 FL No: 13.099 CoE No:	4-Acetoxy-2,5-dimethylfuran-3(2H)-one	<chem>CC1OC(C)=C(OC(C)=O)C1=O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETOXYDIMETHYLFURANONE
158	14049-11-7	237-889-1	FEMA number: 4593 FEMA GRAS number: 24 JECFA number: 2135 FL No: CoE No:	linalool oxide pyranoid	<chem>CC1(C)OC(C)(CCC1O)C=C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=LINALOOLOXIDEPYRANOID

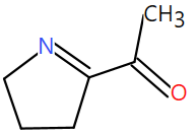
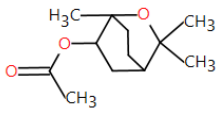
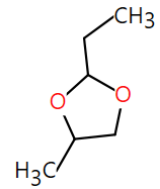
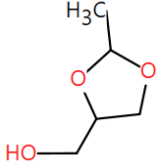
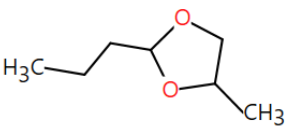
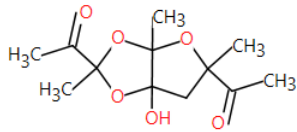
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160	470-67-7	207-428-9	FEMA number: 3658 FEMA GRAS number: 13, 25 JECFA number: 1233 FL No: 03.007 CoE No: 11225	1,4-Cineole	<chem>CC(C)[C@@]12CC[C@](C)(CC1)O2</chem>		https://foodb.ca/compounds/FDB014936
161	1786-08-9	217-241-4	FEMA number: 3661 FEMA GRAS number: 13, 25 JECFA number: 1235 FL No: 13.088 CoE No:	3,6-Dihydro-4-methyl-2-(2-methylprop-1-en-1-yl)-2H-pyran	<chem>CC(C)=CC1CC(C)=CCO1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIHYDROMETHYLMETHYLPROPENYLHPYRAN
162	7392-19-0 and 13837-56-4	230-983-3	FEMA number: 3735 FEMA GRAS number: 13 JECFA number: 1236 FL No: 13.094 CoE No: 10976	2,6,6-Trimethyl-2-vinyltetrahydropyran	<chem>CC1(C)CCCC(C)(O1)C=C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TRIMETHYLVINYLTETRAHYDOPYRAN
163	36431-72-8	253-031-9	FEMA number: 3774 FEMA GRAS number: 15 JECFA number: 1238 FL No: 13.098 CoE No: 10515	Theaspirane	<chem>CC1CCC2(O1)C(C)=CC2(C)C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=THEASPIRANE
164	5552-30-7	226-916-2	FEMA number: 3822 FEMA GRAS number: 18 JECFA number: 1239 FL No: 13.165 CoE No:	6,7,8,8a-Tetrahydro-2,5,5,8a-tetramethyl-5H-1-benzopyran	<chem>CC1OC2(C)CCCC(C)(C)C2=CC=1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=CYCLOIONONE

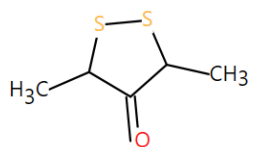
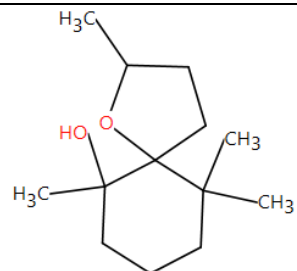
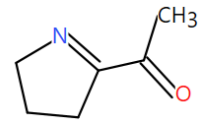

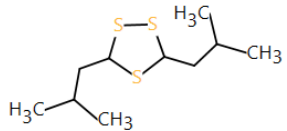
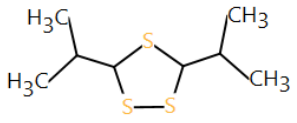
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166	70786-44-6		FEMA number: FEMA GRAS number: JECFA number: FL No: 13.198 CoE No:	3,6-Dimethyl- 2,3,3a,4,5,7a- hexahydrobenzof uran	CC1COC2C=C(C)CCC1 2		https://foodb.ca/compounds/FDB003823
167	23654-92-4	245-808-6	FEMA number: 3541 FEMA GRAS number: 11 JECFA number: 573 FL No: 15.025 CoE No: 11883	3,5-Dimethyl- 1,2,4-trithiolane	CC1SSC(C)S1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIMETHYLTRITHIOLANE
168	1003-04-9	213-698-9	FEMA number: 3266 FEMA GRAS number: 5 JECFA number: 498 FL No: 15.012 CoE No: 2337	4,5- Dihydrothiophen- 3(2H)-one	O=C1CCSC1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIHYDROTHIOPHENONE
169	505-29-3	208-007-2	FEMA number: 3831 FEMA GRAS number: 18 JECFA number: 456 FL No: 15.066 CoE No:	1,4-Dithiane	S1CCSCC1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DITHIANE
170	5616-51-3	227-038-2	FEMA number: 3705 FEMA GRAS number: 13 JECFA number: 534 FL No: 15.034 CoE No:	2-Methyl-1,3- dithiolane	CC1SCCS1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLDITHIOLANE

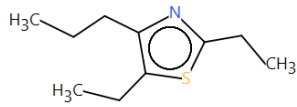
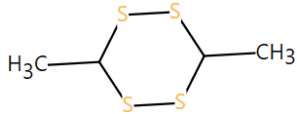
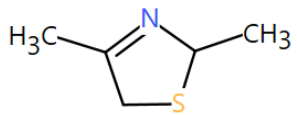
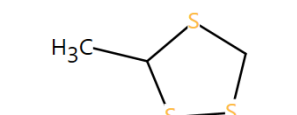
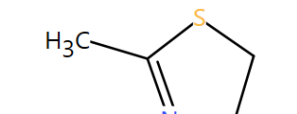
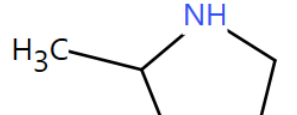
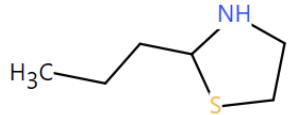
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172	13679-85-1	237-183-3	FEMA number: 3512 FEMA GRAS number: 10 JECFA number: 499 FL No: 15.023 CoE No: 11601	4,5-Dihydro-2-methylthiophene-3(2H)-one	CC1SCCC1=O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLTHIOPHENYDROTHIOPHENONE
173	828-26-2	212-582-5	FEMA number: 3475 FEMA GRAS number: 9 JECFA number: 543 FL No: 15.009 CoE No: 2334	Trithioacetone	CC1(C)SC(C)(C)SC(C)(C)S1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TRITHIOACETONE
174	67715-80-4	261-699-8	FEMA number: 3578 FEMA GRAS number: 11, 25 JECFA number: 464 FL No: 16.030 CoE No: 11540	2-Methyl-4-propyl-1,3-oxathiane	CCCC1CCOC(S1)C		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLPROPYLOXATHIANE2413
175	54644-28-9 and 54717-12-3	639-067-1	FEMA number: 4030 FEMA GRAS number: 21 JECFA number: 1686 FL No: 12.274 CoE No:	3,5-Diethyl-1,2,4-trithiolane	CCC1SS(CC)S1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIETHYLTRITHIOLANE
176	17912-87-7	241-856-7	FEMA number: 4491 FEMA GRAS number: 24 JECFA number: 2207 FL No: 12.274 CoE No:	Myricitrin	C[C@@H]1O[C@@H](OC2C(=O)c3c(O)cc(O)c3OC(=O)c2cc(O)c(O)c(O)c2)[C@H](O)[C@H](O)[C@H]1O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=MYRICITRIN

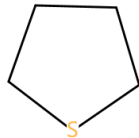
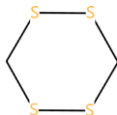
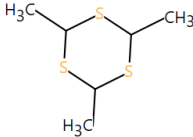
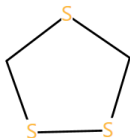
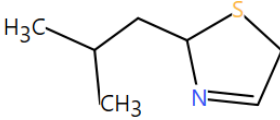
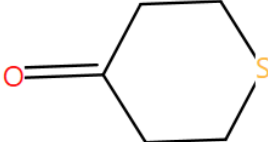
177	462631-45-4	639-081-8	FEMA number: 4228 FEMA GRAS number: JECFA number: 2256 FL No: 16.083 CoE No:	5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-2,3-dihydro-4H-chromen-4-one sodium salt	<chem>[Na+].COc1cc(ccc1O)C1CC(=O)c2c(O)cc([O-])cc2O1</chem>		https://apps.who.int/food-additives-contaminants-jecfa-database/Home/Chemical/6518
178	54717-17-8	801-703-2	FEMA number: 4748 FEMA GRAS number: JECFA number: 2205 FL No: 15.054 CoE No:	Dihydro-2,4,6-triethyl-1,3,5(4H)-dithiazine	<chem>CCC1NC(CC)SC(CC)S1</chem>		https://www.fao.org/food/food-safety-quality/scientific-advice/jecfa/jecfa-flav/details/en/c/2178/
179	74595-94-1	457-290-0	FEMA number: 4017 FEMA GRAS number: 20 JECFA number: 1048 FL No: 15.054 CoE No:	5,6-Dihydro-2,4,6-tris(2-methylpropyl)4H-1,3,5-dithiazine	<chem>CC(C)CC1NC(CC(C)C)SC(CC(C)C)S1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=DIHYDROTRISMETHYLPROPYLDITHIAZINE
180	638-17-5	211-323-3	FEMA number: 4018 FEMA GRAS number: 20 JECFA number: 1049 FL No: 15.109 CoE No: 11649	2,4,6-Trimethyldihydro-1,3,5(4H)-dithiazine	<chem>C[C@@H]1N[C@H](C)S[C@H](C)S1</chem>		https://apps.who.int/food-additives-contaminants-jecfa-database/Home/Chemical/4777
181	29926-41-8	629-682-3	FEMA number: 3817 FEMA GRAS number: 18 JECFA number: 1759 FL No: 15.010 CoE No: 2335	2-Acetyl-2-thiazoline	<chem>CC(=O)C1SCCN=1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLTHIAZOLINE
182	29926-42-9	639-115-1	FEMA number: 4064 FEMA GRAS number: 21 JECFA number: 1760 FL No: 15.128 CoE No:	2-Propionyl-2-thiazoline	<chem>CCC(=O)C1SCCN=1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PROPIONYLTHIAZOLINE

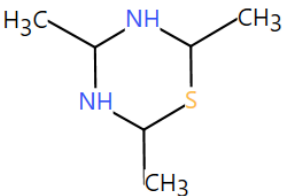
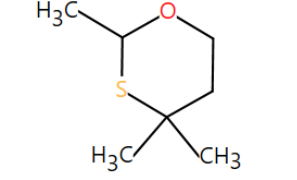
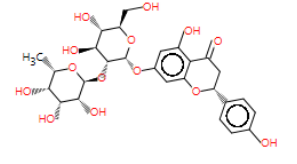
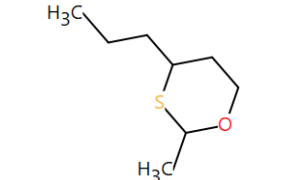
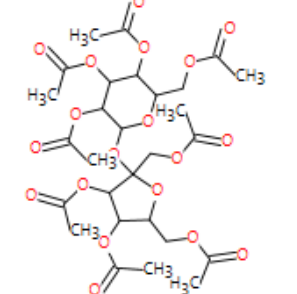
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184	22694-96-8	607-131-8	FEMA number: 3525 FEMA GRAS number: 10 JECFA number: 1559 FL No: 13.039 CoE No: 2319	2,4,5-Trimethyl-delta-3-oxazoline	CC1OC(C)C(C)=N1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TRIMETHYLOXAZOLINE
185	5724-81-2	227-230-6	FEMA number: 3898 FEMA GRAS number: 18 JECFA number: 1603 FL No: 14.167 CoE No:	1-Pyrroline	C1CC=NC1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PYRROLINE
186	133447-37-7	639-056-1	FEMA number: 4063 FEMA GRAS number: 21 JECFA number: 1605 FL No: 14.168 CoE No:	2-Propionyl pyrroline 1% vegetable oil triglycerides	CCC(=O)C1CCCN=1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PROPIONYLPYRROLINE
187	123-75-1	204-648-7	FEMA number: 3523 FEMA GRAS number: 10 JECFA number: 1609 FL No: 14.064 CoE No: 10491	Pyrrolidine	C1CCNC1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PYRROLIDINE
188	110-85-0	203-808-3	FEMA number: 4250 FEMA GRAS number: 22 JECFA number: 1615 FL No: 14.141 CoE No:	Piperazine	C1CNCCN1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PIPERAZINE

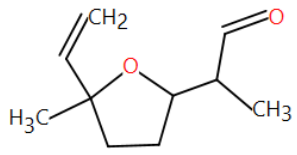
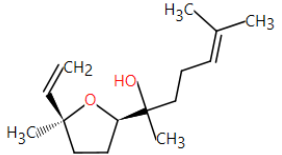
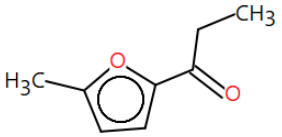
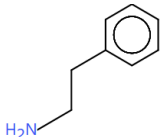
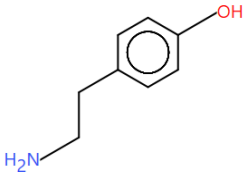
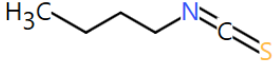
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190	72257-53-5 and 57709-95-2	276-542-9	FEMA number: FEMA GRAS number: JECFA number: FL No: 3.008 CoE No:	2-Acetoxy-1,8- cineole	<chem>CC(=O)O[C@H]1C[C@@H]2CC[C@@]1(C)OC2(C)C</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
191	4359-46-0	224-435-2	FEMA number: FEMA GRAS number: JECFA number: FL No: 06.088 CoE No:	2-Ethyl-4-methyl- 1,3-dioxolane	<chem>CCC1OCC(C)O1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
192	3773-93-1 and 3674-21-3	821-391-1	FEMA number: FEMA GRAS number: JECFA number: FL No: 06.090 CoE No:	4- Hydroxymethyl- 2-methyl-1,3- dioxolane	<chem>CC1OCC(CO)O1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
193	4352-99-2	224-420-0	FEMA number: FEMA GRAS number: JECFA number: FL No: 06.095 CoE No:	dioxolane	<chem>CCCC1OCC(C)O1</chem>		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
194	18114-49-3 Class III		FEMA number: 4303 FEMA GRAS number: 23 JECFA number: 2039 FL No: 6.134 CoE No:	Diacetyl-trimer	<chem>CC(=O)C1(C)CC2(O)OC(C)(OC2(C)O1)C(C)=O</chem>		https://www.hfpappex.ternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TETRAHYDROAH YDROXYATRIMET HYLFIURODIOXOL EDIYLBISETHANO NE

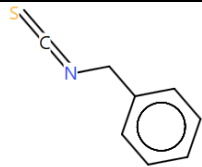
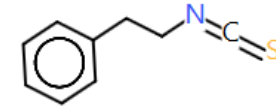
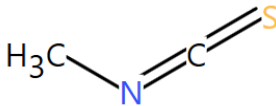
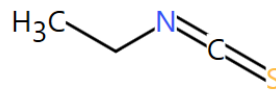
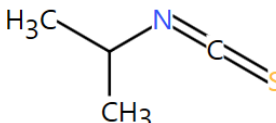
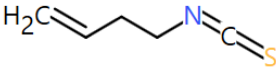
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196	53398-90-6 and 65620-50-0	639-190-0	FEMA number: 3549 FEMA GRAS number: 11 JECFA number: 1648 FL No: 13.076 CoE No: 11917	6- Hydroxydihydro- theaspirane	CC1CCC2(O1)C(C)(C)C CCC2(C)O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HYDROXYDIHYDROTHEASPIRANE
197	85213-22-5	639-632-2	FEMA number: 4249 FEMA GRAS number: 22 JECFA number: 1604 FL No: 14.080 CoE No:	2-Acetyl-1- pyrroline	CC(=O)C1CCC=N1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ACETYLPYRROLINE
198	142-08-5	276-824-1	FEMA number: FEMA GRAS number: JECFA number: FL No: 14.118 CoE No:	2- Hydroxypyridine	O=C1NC=CC=C1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
199	92900-67-9		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.047 CoE No:	3,5-Di-isobutyl- 1,2,4-trithiolane	CC(C)CC1SSC(CC(C)C))S1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
200	54934-99-5		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.048 CoE No:	3,5-Di-isopropyl- 1,2,4-trithiolane	CC(C)C1SSC(S1)C(C)C		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872

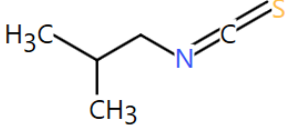
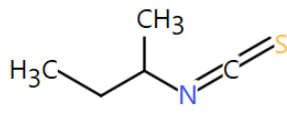
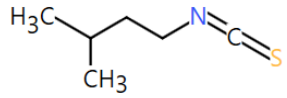
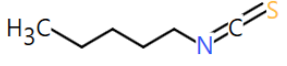
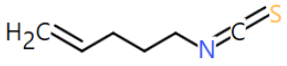
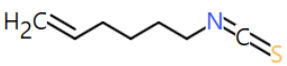
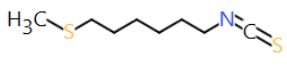
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202	67411-27-2		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.056 CoE No:	3,6-Dimethyl-1,2,4,5-tetrathiane	CC1SSC(C)SS1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
203	60755-05-7		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.060 CoE No:	2,4-Dimethyl-3-thiazoline	CC1SCC(C)=N1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
204	51647-38-2		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.083 CoE No:	3-Methyl-1,2,4-trithiolane	CC1SCSS1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
205	2346-00-1	219-071-6	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.060 CoE No:	2-Methyl-2-thiazoline	CC1SCCN=1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
206	24050-16-6		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.09 CoE No:	2-Methylthiazolidine	CC1NCCS1		e-Flavis
207	24050-10-0		FEMA number: FEMA GRAS number: JECFA number:	2-Propylthiazolidine	CCCC1NCCS1		e-Flavis

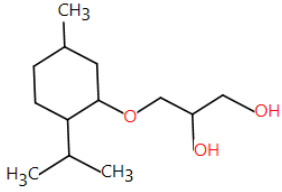
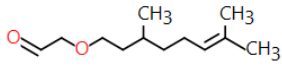
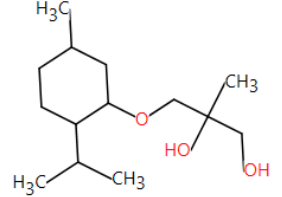
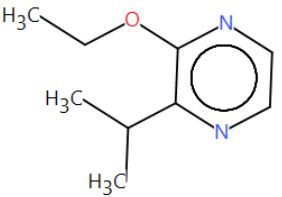
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209	291-22-5		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.103 CoE No:	1,2,4,5-Tetrathiane	C1SSCSS1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
210	2765-04-0	245-870-4	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.110 CoE No:	2,4,6-Trimethyl-1,3,5-trithiane	CC1SC(C)SC(C)S1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
211	289-16-7		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.111 CoE No:	1,2,4-Trithiolane	C1SSCS1		https://foodb.ca/compounds/FDB019028
212	39800-92-5		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.119 CoE No:	2-Isobutyl-3-thiazoline	CC(C)CC1SCC=N1		https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012R0872
213	1072-72-6	214-015-7	FEMA number: FEMA GRAS number: JECFA number: FL No: 15.125 CoE No:	4-Tetrahydrothiopyranone	O=C1CCSCC1		e-Flavis

214	53897-63-5		FEMA number: FEMA GRAS number: JECFA number: FL No: 15.129 CoE No:	Tetrahydro-2,4,6-trimethyl-1,3,5(2H)-thiadiazine	CC1NC(C)SC(C)N1		e-Flavis
215	72472-02-7		FEMA number: FEMA GRAS number: JECFA number: FL No: 16.057 CoE No:	2,4,4-Trimethyl-1,3-oxathiane	CC1OCCC(C)(C)S1		e-Flavis
216	10236-47-2	233-566-4	FEMA number: FEMA GRAS number: JECFA number: FL No: 16.058 CoE No: 10286	Naringin	C[C@@H]1O[C@@H](O[C@@H]2[C@@H](O)[C@H](O)[C@@H](CO)O2)O[C@@H](C(=O)C[C@H](O)c3cc(O)cc(O)c3)[C@H](O)[C@@H]1O		https://foodb.ca/compounds/FDB011866
217	67715-80-4 and 59324-17-3	261-699-8	FEMA number: 3578 FEMA GRAS number: 11, 25 JECFA number: 464 FL No: 16.030 CoE No: 11540	trans-2-Methyl-4-propyl-1,3-oxathiane	CCC[C@@H]1CCO[C@@H](C)S1		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLPROPYLOXATHIANE2413
218	126-14-7	204-772-1	FEMA number: 3038 FEMA GRAS number: 3 JECFA number: 464 FL No: 16.081 CoE No: 11819	Sucrose octaacetate	CC(=O)OC[C@H]1O[C@@H](O[C@]2(COC(C)=O)O[C@@H](OC(C)=O)[C@@H]2OC(C)=O)[C@H](OC(C)=O)[C@@H](OC(C)=O)[C@@H]1OC(C)=O		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=SUCROSEOCTAACETATE

219	67920-63-2 and 51685-39-3		FEMA number: 4058 FEMA GRAS number: 21 JECFA number: 1457 FL No: 16.081 CoE No: 11819	2-(5-Methyl-5- vinyl- tetrahydrofuran-2- yl)propionaldehyd e	<chem>CC(C=O)C1CCC(C)(O1)C=C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLVINYLTETRAHYDROFURANYLPROPIONALDEHYDE
220	185253-84-3		FEMA number: 4549 FEMA GRAS number: JECFA number: FL No: CoE No:	Nerolidol oxide	<chem>CC(C)=CCCC(C)(O)[C@H]1CC[C@](C)(O1)C=C</chem>		e-Flavis
221	10599-69-6	234-215-8	FEMA number: FEMA GRAS number: JECFA number: FL No: 13.155 CoE No:	2-Methyl-5- propionylfuran	<chem>CCC(=O)c1ccc(C)o1</chem>		e-Flavis
222	64-04-0	2005744	FEMA number: 3220 FEMA GRAS number: 4 JECFA number: 1589 FL No: 11.006 CoE No: 708	PHENYLETHYL AMINE	<chem>NCCC1=CC=CC=C1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PHENETHYLAMINE
223	51-67-2	2001158	FEMA number: 4215 FEMA GRAS number: 22 JECFA number: 1590 FL No: 11.007 CoE No: 709	TYRAMINE	<chem>NCCc1ccc(O)cc1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=TYRAMINE
224	592-82-5	2097704	FEMA number: 4082 FEMA GRAS number: 22 JECFA number: 1561 FL No: 12.107 CoE No: 11488	Butyl isothiocyanate	<chem>CCCCN=C=S</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=BUTYLISOTHIOCYANATE

225	622-78-6	210-753-9	FEMA number: 4428 FEMA GRAS number: 23 JECFA number: 1562 FL No: 12.102 CoE No: 11863	Benzyl isothiocyanate	<chem>S=C=NCc1ccccc1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=BENZYLISOTHIOCYANATE
226	2257-09-2	218-855-5	FEMA number: 4014 FEMA GRAS number: 20 JECFA number: 1563 FL No: 12.193 CoE No: 11495	Phenethyl isothiocyanate	<chem>S=C=NCCc1ccccc1</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PHENETHYLISOTHIOCYANATE
227	556-61-6	209-132-5	FEMA number: 4426 FEMA GRAS number: 23 JECFA number: 1884 FL No: CoE No:	Methyl isothiocyanate	<chem>CN=C=S</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=METHYLISOTHIOCYANATE
228	542-85-8	208-831-2	FEMA number: 4420 FEMA GRAS number: 23 JECFA number: 1885 FL No: CoE No:	Ethyl isothiocyanate	<chem>CCN=C=S</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHYLISOTHIOCYANATE
229	2253-73-8	218-851-3	FEMA number: 4425 FEMA GRAS number: 23 JECFA number: 1888 FL No: CoE No	Isopropyl isothiocyanate	<chem>CC(C)N=C=S</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ISOPROPYLISOTHIOCYANATE
230	3386-97-8	222-209-8	FEMA number: 4418 FEMA GRAS number: 23 JECFA number: 1889 FL No: 12.283 CoE No	3-Butenyl isothiocyanate	<chem>C=CCCN=C=S</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=BUTENYLISOTHIOCYANATE

231	591-82-2	209-733-2	FEMA number: 4424 FEMA GRAS number: 23 JECFA number: 1886 FL No: CoE No	Isobutyl thiocyanate	CC(C)CN=C=S		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ISOBUTYLISOTHIOCYANATE
232	4426-79-3	224-609-8	FEMA number: 4419 FEMA GRAS number: 23 JECFA number: 1890 FL No: CoE No	2- Butylisothiocyana te	CC(N=C=S)CC		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=BUTYLISOTHIOCYANATE2
233	628-03-5	671-299-9	FEMA number: 4423 FEMA GRAS number: 23 JECFA number: 1887 FL No: CoE No	Isoamyl isothiocyanate	CC(C)CCN=C=S		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ISOAMYLISOTHIOCYANATE
234	629-12-9	211-075-6	FEMA number: 4417 FEMA GRAS number: 23 JECFA number: 1891 FL No: CoE No	Amyl isothiocyanate	CCCCCN=C=S		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=AMYLISOTHIOCYANATE
235	18060-79-2	678-555-9	FEMA number: 4427 FEMA GRAS number: 23 JECFA number: 1893 FL No: CoE No	4-Pentenyl isothiocyanate	C=CCCCN=C=S		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=PENTENYLISOTHIOCYANATE
236	49776-81-0		FEMA number: 4421 FEMA GRAS number: 23 JECFA number: 1894 FL No: CoE No	5-Hexenyl isothiocyanate	C=CCCCCCN=C=S		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=HEXENYLISOTHIOCYANATE
237	4430-39-1	861-180-1	FEMA number: 4415 FEMA GRAS number: 23 JECFA number: 1897	6- (Methylthio)hexyl isothiocyanate	CSCCCCCCN=C=S		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=

			FL No: CoE No:				METHYLTHIOHEXYLISOTHIOCYANATE
238	87061-04-9	2892962	FEMA number: 3784 FEMA GRAS number: 16, 25 JECFA number: 1408 FL No: 02.224 CoE No:	3-(1-Methoxy)propane-1,2-diol	<chem>OCC(COC1CC(C)CCC1C(C)C)O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=MENTHOXYPROPANEDIOL
239	7492-67-3	231-324-2	FEMA number: 2310 FEMA GRAS number: 3, 25 JECFA number: 592 FL No: 05.079 CoE No: 2012	Citronellyl oxycetaldehyde	<chem>CC(CCOC=O)CCC=C(C)C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=CITRONELLOXYACETALDEHYDE
240	195863-84-4		FEMA number: 3849 FEMA GRAS number: 18 JECFA number: 1411 FL No: 02.254 CoE No:	(1R, 2S, 5S)-3-Methoxy-2-methylpropane-1,2-diol	<chem>CC(C)C1CCC(C)CC1OC(C)O</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=MENTHOXYMETHYLPROPANEDIOL
241	72797-16-1	276-847-7	FEMA number: 4632 FEMA GRAS number: 24 JECFA number: 2129 FL No: CoE No:	2-Ethoxy-3-isopropylpyrazine	<chem>CCOc1ncnc1C(C)C</chem>		https://www.hfpappexternal.fda.gov/scripts/fdcc/index.cfm?set=FoodSubstances&id=ETHOXYISOPROPYLPYRAZINE

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