



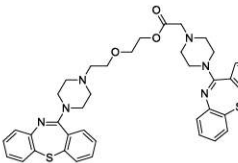
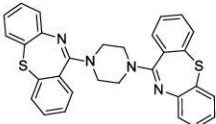
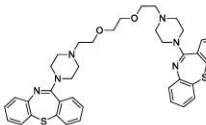
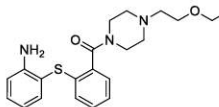
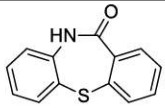
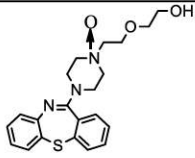
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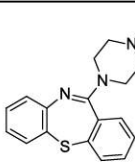
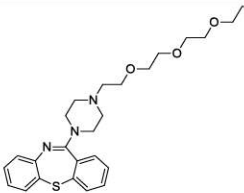
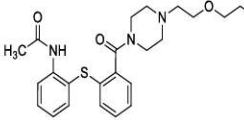
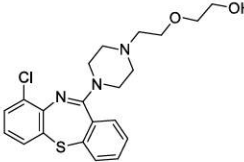
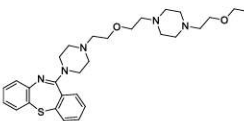
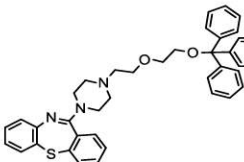
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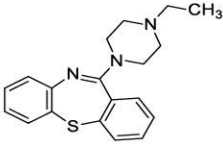
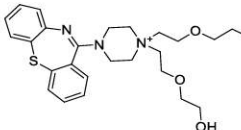
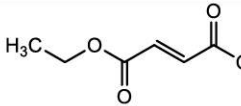
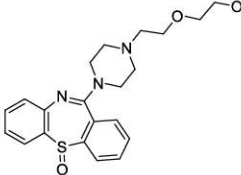
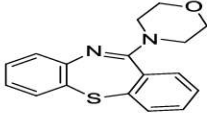
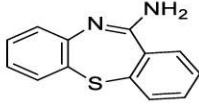
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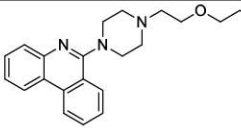
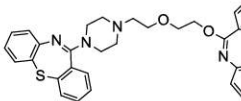
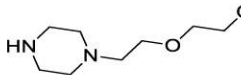
info@metron.co.in / Sales@metron.co.in

S.No	Impurity Name	IUPAC NAME	CAS NO	M.F & MOI.Wt	Structure
Quetiapine Fumarate Impurities					
1	EP Impurity-A	2-[2-(4-Dibenzo [b,f] [1,4]thiazepin-11-yl-1-piperazinyl)ethoxy]-ethyl acetate	844639-07-2	C₂₃H₂₇N₃O₃S / 425.54	
2	EP Impurity-B	11-(Piperazin-1-yl)dibenzo [b,f][1,4]thiazepine.HCl	111974-74-4	C₁₇H₁₈ClN₃S / 331.86	

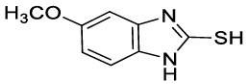
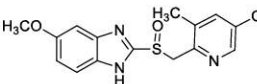
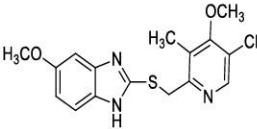
3	EP Impurity-C	2-(2-(4-(Dibenzo[b,f][1,4]thiazepin-11-yl)piperazin-1-yl)ethoxy)ethyl 2-(4-(dibenzo[b,f][1,4]thiazepin-11-yl) piperazin	1798840-31-9	$C_{40}H_{42}N_6O_3S_2$ / 718.93	
4	EP Impurity-D	1,4-Bis(dibenzo[b,f][1,4]thiazepin-11-yl)piperazine-1-yl)acetate	945668-94-0	$C_{30}H_{24}N_4S_2$ / 504.67	
5	EP Impurity-E	1,2-bis[2-(4-Dibenzo [b,f][1,4]thiazepin-11-yl-1-piperazinyl)ethoxy]ethane	1371638-05-9	$C_{40}H_{44}N_6O_2S_2$ / 704.95	
6	EP Impurity-F	(2-((2-Aminophenyl)thio)phenyl) (4-(2-(2-hydroxyethoxy)ethyl)piperazin-1-yl) methanone	848814-27-7	$C_{21}H_{27}N_3O_3S$ / 401.52	
7	EP Impurity-G	Dibenzo-(1,4)-thiazepine-11(10H)-One	3159-07-7	$C_{13}H_9NOS$ / 227.28	
8	EP Impurity-H	2-[2-(4-Dibenzo[b,f][1,4]thiazepin-11-yl-piperazin-1-yl-1-oxide)ethoxy]ethanol	1076199-40-0	$C_{21}H_{25}N_3O_3S$ / 399.51	

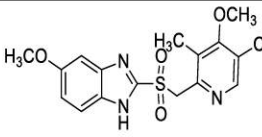
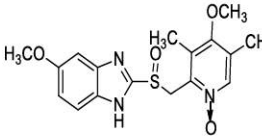
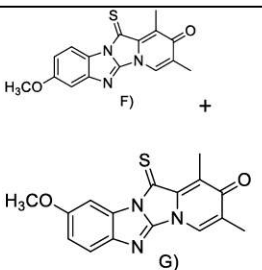
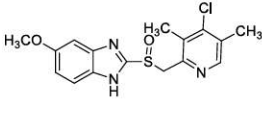
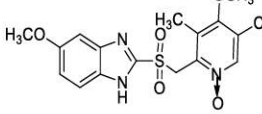
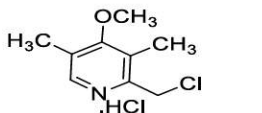
9	EP Impurity-I	2-[4-(Dibenzo[b,f][1,4]thiazepin-11-yl)piperazin-1-yl]ethanol.HCl	329218-14-6	$C_{19}H_{21}N_3OS$ / 339.45	
10	EP Impurity-J	2-[2-(2-{2-[4-(Dibenzo[b,f][1,4]thiazepin-11-yl)piperazin-1-yl]ethoxy}ethoxy)ethoxy]ethanol	1356906-17-6	$C_{25}H_{33}N_3O_4$ / 471.61	
11	EP Impurity-K	N-(2-((2-(4-(2-(2-Hydroxyethoxy)ethyl)piperazine-1-carbonyl)phenyl)thio)phenyl)acetamide HCl	1371638-10-6	$C_{24}H_{33}N_3O_4S$ / 459.60	
12	EP Impurity-L	2-(2-(4-(9-Chlorodibenzo[b,f][1,4]thiazepin-11-yl)piperazin-1-yl)ethoxy) ethanol	1371638-11-7	$C_{21}H_{24}ClN_3O_2S$ / 417.95	
13	EP Impurity-N	4-[2-[2-(4-Dibenzo [b,f][1,4]thiazepin-11-yl-1-piperazinyl)ethoxy]ethyl]-1-[(2-hydroxyethoxyl)ethyl]-piperazine(U/D)	1800291-86-4	$C_{29}H_{41}N_5O_3S$ / 539.73	
14	EP Impurity-O	11-(4-(2-(2-(Trityloxy)ethoxy)ethyl)piperazin-1-yl)dibenzo [b,f][1,4]thiazepine	844639-06-1	$C_{40}H_{39}N_3O_2S$ / 625.82	

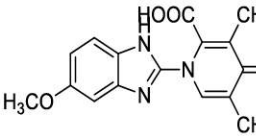
15	EP Impurity-P	11-(4-Ethylpiperazin-1-yl) dibenzo[b,f][1,4]thiazepineHCl	1011758-03-4	$C_{19}H_{21}N_3S$ / 323.46	
16	EP Impurity-Q	4-(Dibenzo[b,f][1,4] thiazepin- 11-yl)-1,1-bis[2-(2-hydroxy ethoxy) ethyl]piperazin-1-ium	N/A	$C_{25}H_{34}N_3O_4S$ / 472.62	
17	EP Impurity-R	(E)-4-Ethoxy-4-oxobut-2- enoic acid	2459-05-4	$C_6H_8O_4$ / 144.13	
18	EP Impurity-S	2-[2-[4-(5-Oxidodibenzo [b,f][1,4]thiazepin-11-yl)-1- piperazinyl]ethoxy]ethanol HCl	329216-63-9	$C_{21}H_{25}N_3O_3S$ / 399.51	
19	EP Impurity-T	4-(Dibenzo[b,f][1,4]thiazepin- 11-yl)morpholine	5747-46-6	$C_{17}H_{16}N_2OS$ / 296.39	
20	EP Impurity-U	Dibenzo[b,f][1,4]thiazepin-11- amine(U/D)	5786-26-5	$C_{13}H_{10}N_2S$ / 226.30	
		2-(2-(4-(Phenanthridin-6-			

21	EP Impurity-V	yl)piperazin-1-yl)ethoxy) ethanol	N/A(U/D)	C₂₁H₂₅N₃O₂ / 351.44	
22	EP Impurity-w	11-(2-(2-(4-(Dibenzo[b,f][1,4] thiazepin-11-yl)piperazin-1- yl)ethoxy)ethoxy) dibenzo [b,f][1,4]thiazepine	1800608-95-0	C₃₄H₃₂N₄O₂S₂ / 592.77	
23	HEEP Impurity	1-[2-(2-Hydroxyethoxy) ethyl]piperazine	13349-82-1	C₈H₁₈N₂O₂ / 174.24	

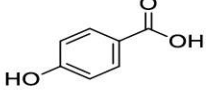
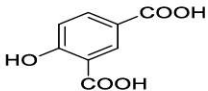
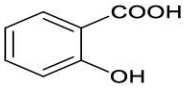
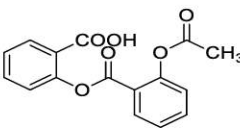
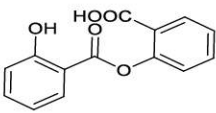
ES-Omeprazole Impurities

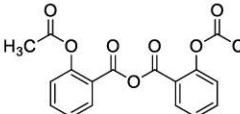
24	EP Impurity-A	5-methoxy-1H- benzo[d]imidazole-2-thiol	37052-78-1	C₈H₈N₂OS / 180.23	
25	EP Impurity-B	2-(((3,5-dimethylpyridin-2- yl)methyl)sulfinyl)-5-methoxy- 1H-benzo[d]imidazole	110374-16-8	C₁₆H₁₇N₃O₂S / 315.39	
26	EP Impurity-C	5-methoxy-2-(((4-methoxy- 3,5-dimethylpyridin-2-yl) methyl) thio)-1H-benzo [d]imidazole.	73590-85-9	C₁₇H₁₉N₃O₂S / 329.42	
		5-methoxy-2-(((4-methoxy-	88546-55-8	C₁₇H₁₉N₃O₄S /	

27	EP Impurity-D	3,5-dimethylpyridin-2-yl)methyl)sulfonyl)-1H-benzo[d]imidazole		361.42	
28	EP Impurity-E	4-methoxy-2-(((5-methoxy-1H-benzo[d]imidazol-2-yl)sulfinyl)methyl)-3,5-dimethylpyridine 1-oxide	176219-04-8	C ₁₇ H ₁₉ N ₃ O ₄ S / 361.42	
29	EP Impurity F&G Mixture	1,3-Dimethyl-8-methoxy-12-thioxopyrido[1',2':3,4]imidazo[1,2-a]benzimidazol-2(12H)-one and 1,3-Dimethyl-9-methoxy-12-thioxopyrido[1',2':3,4]imidazo[1,2-a]benzimidazol-2(12H)-one Mixture	125656-82-8 & 125656-83-9	C ₁₆ H ₁₃ N ₃ O ₂ S / 311.36	
30	EP Impurity-H	2-(((4-chloro-3,5-dimethylpyridin-2-yl)methyl)sulfinyl)-5-methoxy-1H-benzo[d]imidazole	863029-89-4	C ₁₆ H ₁₆ ClN ₃ O ₂ S / 349.84	
31	EP Impurity-I	4-methoxy-2-(((5-methoxy-1H-benzo[d]imidazol-2-yl)sulfonyl)methyl)-3,5-dimethylpyridine 1-oxide	158812-85-2	C ₁₇ H ₁₉ N ₃ O ₅ S / 377.41	
32	Chloro Impurity	2-Chloromethyl-3,5-dimethyl-4-methoxypyridine HCl	86604-75-3	C ₉ H ₁₃ Cl ₂ NO / 222.11	

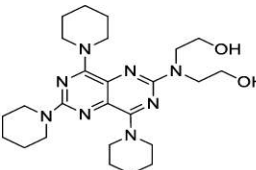
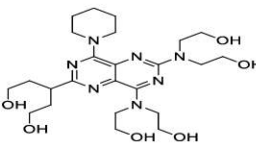
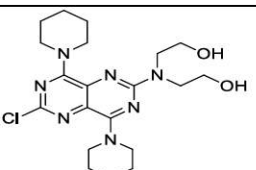
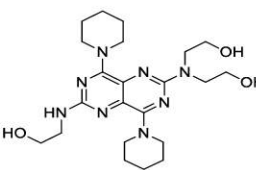
33	Es-Omeprazole impurity at 0.25 RRT	1-(5-methoxy-1H-benzo [d] imidazol-2-yl)-3,5-dimethyl-4- oxo-1,4-dihydropyridine-2- carboxylic acid	1227380-90- 6	$C_{16}H_{15}N_3O_4$ / 313.31	
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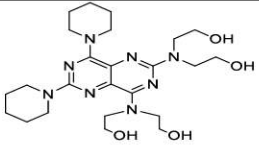
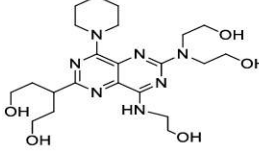
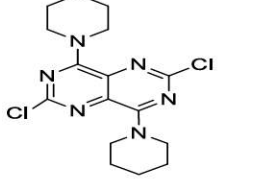
Aspirin Impurities

34		4-Hydroxy benzoic acid	99-96-7	$C_7H_6O_3$ / 138.12	
35		4-Hydroxy Isophthalic acid	636-46-4	$C_8H_6O_5$ / 182.13	
36		2-Hydroxy benzoic acid	69-72-7	$C_7H_6O_3$ / 138.12	
37		2-((2-Acetoxybenzoyl)oxy) benzoic acid	530-75-6	$C_{16}H_{12}O_6$ / 300.26	
38		2-((2-Hydroxybenzoyl)oxy) benzoic acid	552-94-3	$C_{14}H_{10}O_5$ / 258.23	

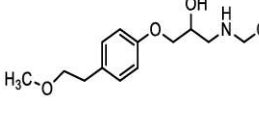
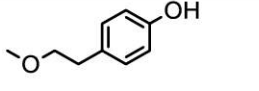
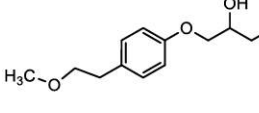
39		2-Acetoxybenzoic anhydride	1466-82-6	$C_{18}H_{14}O_7$ / 342.30	
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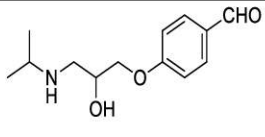
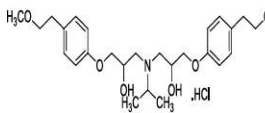
Dipyridamole Impurities

40	EP-Impurity-A	2,2'-[[4,6,8-Tri(piperidin-1-yl)pyrimido [5,4-d] pyrimidin-2-yl] nitrilo]diethanol	16982-40-4	$C_{25}H_{40}N_8O_2$ / 484.64	
41	EP-Impurity-B	2,2',2'',2''',2''''-[8-(Piperidin-1-yl)pyrimido[5,4-d]pyrimidine-2,4,6-triyl] trinitrilo] hexaethanol	16908-47-7	$C_{24}H_{41}N_7O_6$ / 523.63	
42	EP-Impurity-C	2,2'-[[6-Chloro-4,8-di (piperidin-1-yl)pyrimido[5,4-d] pyrimidin-2-yl]nitrilo]diethanol	54093-92-4	$C_{20}H_{30}ClN_7O_2$ / 435.95	
43	EP-Impurity-D	2,2'-[[6-(2-Hydroxyethyl) amino-4,8-di(piperidin-1-yl)pyrimido[5,4-d]pyrimidin-2-yl]nitrilo]diethanol	1176886-12-6	$C_{22}H_{36}N_8O_3$ / 460.57	
44	EP-Impurity-E	2,2',2'',2''''-[6,8-di(piperidin-1-yl)pyrimido[5,4-d]pyrimidine-2,4-diyl] dinitrilo]tetraethanol	N/A	$C_{24}H_{40}N_8O_4$ / 504.63	

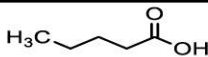
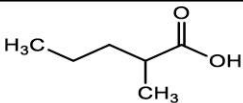
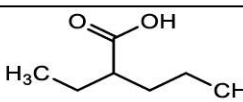
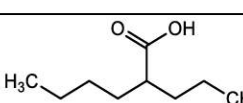
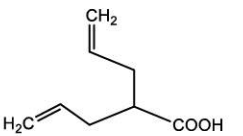
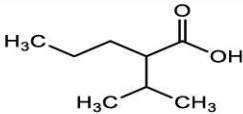
		(U/D)			
45	EP-Impurity-F	2,2',2'',2'''-[4-[(2-hydroxyethyl)amino]-8-(piperidin-1-yl)-pyrimido[5,4-d]pyrimidine-2,6-diyl]dinitrilo]tetraethanol (U/D)	60286-30-8	$C_{22}H_{37}N_7O_5$ / 479.57	
46	EP-Impurity-G	6-Dichloro-4,8-di(piperidin-1-yl)-pyrimido[5,4-d]pyrimidine	7139-02-8	$C_{16}H_{20}Cl_2N_6$ / 367.28	

Metoprolol Impurities

47	EP-impurity-A	(2RS)-1-(Ethylamino)-3-[4-(2-methoxyethyl)phenoxy]propan-2-ol	109632-08-8	$C_{14}H_{23}NO_3$ / 253.34	
48	EP-impurity-B	4-(2-Methoxyethyl)phenol	56718-71-9	$C_{12}H_{17}ClO_3$ / 244.71	
49	USP-impurity-B	(+/-)1-Chloro-2-hydroxy-3-[4-(2-methoxyethyl)phenoxy]-propane	56718-76-4	$C_{12}H_{17}ClO_3$ / 244.71	
50	EP-impurity-C	4-[2-Hydroxy-3-(1-methyl ethyl)aminopropoxy]benzal	29122-74-5	$C_{13}H_{19}NO_3$ / 237.29	

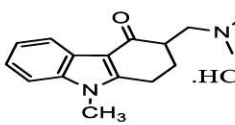
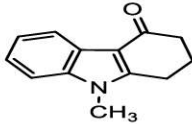
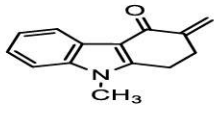
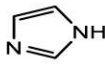
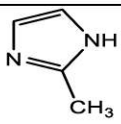
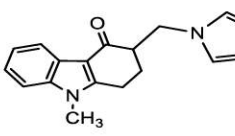
		ehyde			
51	EP-impurity-O	(±)- <i>N,N</i> -Bis[2-hydroxy-3-[4-(2-methoxyethyl) phenoxy] propyl](1-methylethyl) amine. hydrochloride	154784-36-8	$C_{27}H_{42}ClNO_6$ / 512.08	

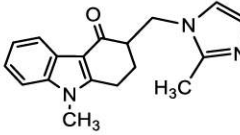
DiValoprex Sodium Impurities

52		Valeric acid	109-52-4	$C_5H_{10}O_2$ / 102.13	
53		2-Methyl Valeric acid	97-61-0	$C_6H_{12}O_2$ / 116.16	
54		2-Ethyl Valeric acid	20225-24-5	$C_7H_{14}O_2$ / 130.18	
55		2-Butyl Valeric acid	N/A	$C_9H_{18}O_2$ / 158.24	
56		Diallyl aetic acid	99-67-2	$C_8H_{12}O_2$ / 140.18	
57		2-Isopropyl Valeric acid	62391-99-5	$C_8H_{16}O_2$ / 144.21	

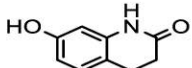
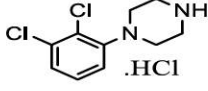
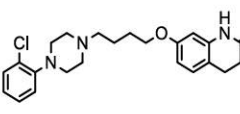
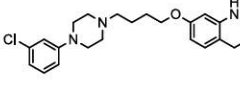
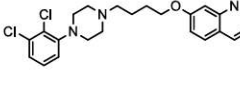
58		Methyl Valproate	22632-59-3	$C_9H_{18}O_2$ / 158.24	
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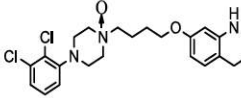
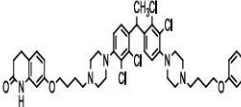
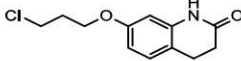
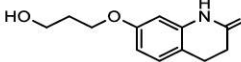
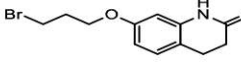
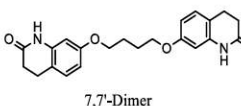
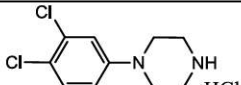
Ondansetron Impurities

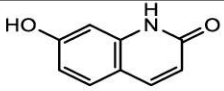
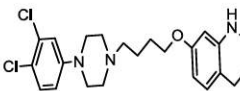
59	EP Impurity-A	(3RS)-3-[(dimethylamino)methyl]-9-methyl-1,2,3,9-tetrahydro-4H-carbazol-4-one.HCl	119812-29-2	$C_{16}H_{21}ClN_2O$ / 292.80	
60	EP Impurity-C	9-methyl-1,2,3,9-tetrahydro-4H-carbazol-4-one	27387-31-1	$C_{13}H_{13}NO$ / 199.25	
61	EP Impurity-D	9-methyl-3-methylene-1,2,3,9-tetrahydro- carbazol-4-4H- one	99614-64-9	$C_{14}H_{13}NO$ / 211.26	
62	EP Impurity-E	1H-Imidazole	288-32-4	$C_3H_4N_2$ / 68.08	
63	EP Impurity-F	2-Methyl-1H-imidazole	693-98-1	$C_4H_6N_2$ / 82.10	
64	EP Impurity-G	(3RS)-3-[(1H-Imidazol-1-yl)methyl]-9-Methyl-1,2,3,9-tetrahydro-4H-carbazol-4-one	N/A	$C_{17}H_{17}N_3O$ / 279.34	

65	EP Impurity-H	(3RS)-3-[(2-Methyl-1H-imidazol-1-yl)methyl]-1,2,3,9-tetrahydro-4H-carbazol-4-one	9614-14-9	$C_{18}H_{19}N_3O$ / 293.36	
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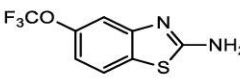
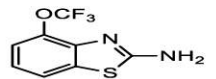
Aripiprazole Impurities

65	EP Impurity-A	7-Hydroxy-3,4-dihydroquinolin-2(1H)-one	22246-18-0	$C_9H_9NO_2$ / 163.17	
66	EP Impurity-B	1-(2,3-Dichlorophenyl)piperazine hydrochloride	119532-26-2	$C_{10}H_{13}Cl_3N_2$ / 267.58	
67	EP Impurity-C	7-[4-[4-(2-Chlorophenyl)-1-piperazinyl]butoxy]-3,4-dihydro-2(1H)-quinolinone	203395-81-7	$C_{23}H_{28}ClN_3O_2$ / 413.94	
68	EP Impurity-D	7-[4-[4-(3-Chlorophenyl)-1-piperazinyl]butoxy]-3,4-dihydro-2(1H)-quinolinone	203395-82-8	$C_{23}H_{28}ClN_3O_2$ / 413.94	
69	EP Impurity-E	7-(4-(4-(2,3-dichlorophenyl)piperazin-1-yl)butoxy)-3,4-quinolin-2(1H)-one	129722-25-4	$C_{23}H_{25}Cl_2N_3O_2$ / 446.37	
70	EP Impurity-F	4-(2,3-Dichlorophenyl)-1-[4-(2-oxo-1,2,3,4-tetrahydro	573691-09-5	$C_{23}H_{27}Cl_2N_3O_3$	

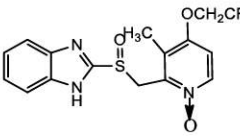
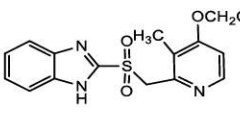
		quinolin-7-yloxy)butyl] piperazine-1-oxide		/464.38	
71	EP Impurity-G	1,1'-(Ethane-1,1-diyl)bis(2,3-dichloro-4{4-[3,4-dihydro quinolin-2(1H)-one-7-yloxy butyl] piperazin-1-yl}benzene)(U/D)	1797986-18-5 (Under development)	C ₄₈ H ₅₆ Cl ₄ N ₆ O ₄ / 922.81	
72		7-(4-Chlorobutoxy)-3,4-dihydroquinolin-2(1H)-one	N/A	C ₁₂ H ₁₄ ClNO ₂ / 239.70	
73	USP RC-B	7-(4-Hydroxy-butoxy)-3,4-dihydroquinolin-2(1H)-one	889443-20-3	C ₁₂ H ₁₅ NO ₃ / 221.25	
74		7-(4-Bromobutoxy)-3,4-dihydroquinolin-2-one	129722-34-5	C ₁₂ H ₁₄ BrNO ₂ / 284.15	
75		7,7'-[Butane-1,4,diylbis(oxy)]bis[3,4-dihydroquinolin-2(1H)-one	882880-12-8	C ₂₂ H ₂₄ N ₂ O ₄ / 380.44	 7,7'-Dimer
76		1-(3,4-Dichloro phenyl) piperazine.HCl	76835-17-1	C ₁₀ H ₁₃ Cl ₃ N ₂ / 267.52	
77		7-Hydroxyquinolin-2(1H)-one	70500-72-0	C ₉ H ₇ NO ₂ / 161.16	

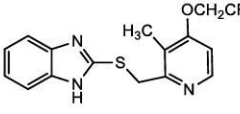
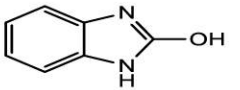
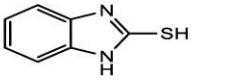
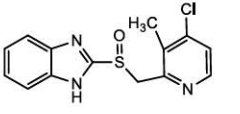
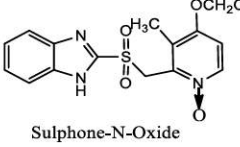
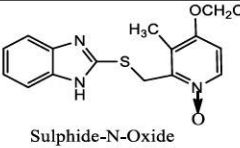
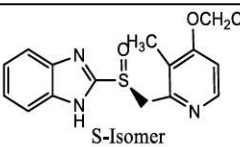
					
78		Aripiprazole 3,4-Dichloro Analogue		$C_{23}H_{27}Cl_2N_3O_2$ / 448.39	

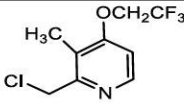
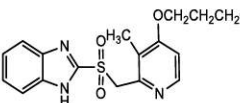
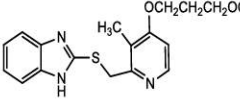
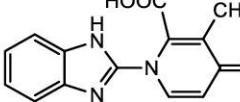
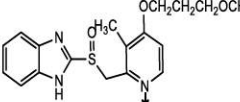
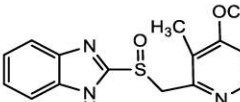
Riluzole Impurities

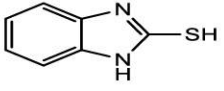
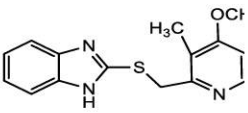
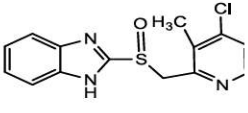
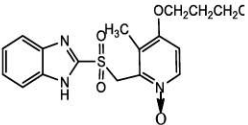
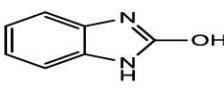
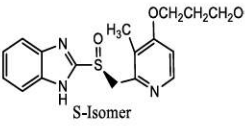
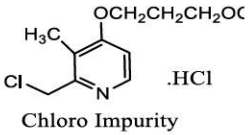
79		5-(Trifluoromethoxy) benzo(d)Thiazol-2-amine	N/A	$C_8H_5F_3N_2OS$ / 234.20	 5-Trifluoro Impurity
80		4-(Trifluoromethoxy) benzo(d)Thiazol-2-amine	N/A	$C_8H_5F_3N_2OS$ / 234.20	 4-Trifluoro Impurity

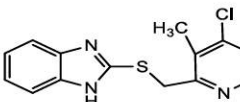
Lansoprazole

81	EP Impurity-A	2-[[[3-Methyl-1-oxido-4-(2,2,2-trifluoroethoxy)-2-pyridinyl] methyl]sulfonyl]-1H benzimidazole	213476-12-1	$C_{16}H_{14}F_3N_3O_3S$ / 385.36	
82	EP Impurity- B	2-[[[3-Methyl-4-(2,2,2-tri fluo ro ethoxy)-2-pyridinyl] methyl]sulfonyl]-1H-benz imidazole	131926-99-3	$C_{16}H_{14}F_3N_3O_3S$ / 385.36	

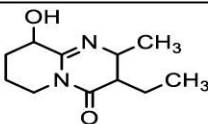
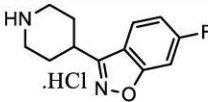
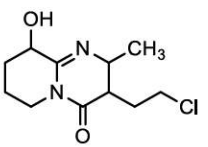
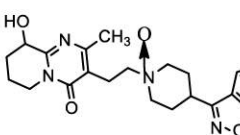
83	EP Impurity- C	2-[[[3-Methyl-4-(2,2,2-tri fluor oethoxy)-2-pyridinyl] methyl] sulfanyl]-1H-benz imidazole	103577-40-8	C₁₆H₁₄F₃N₃OS / 353.36	
84	EP Impurity-D	1H-Benzimidazol-2-ol ; 2- Hydroxybenzimidazole	615-16-7	C₇H₆N₂O / 134.14	
85	EP Impurity-E	2-Mercaptobenzimidazole	583-39-1	C₇H₆N₂S / 150.20	
86	EP Impurity-F	2-[(RS)-[(4-Chloro-3-methyl pyridin-2-yl)methyl]sulfinyl]- 1H-benzimidazole	168167-42-8	C₁₄H₁₂ClN₃OS / 305.78	
87	Sulphone-N-Oxide	2-[[[3-Methyl-1-oxido-4-(2,2, 2 -trifluoroethoxy)-2-pyridinyl] methyl]sulfonyl]-1H-benz imidazole	953787-54-7	C₁₆H₁₄F₃N₃O₄S / 401.36	
88	Sulphide-N-Oxide	2-[[[3-Methyl-1-oxido-4-(2,2 ,2-trifluoroethoxy)-2-pyridinyl] methyl]sulfanyl]-1H-benz imidazole	163119-30-0	C₁₆H₁₄F₃N₃O₂S / 369.36	
89	S-Isomer	2-[(S)-[[3-Methyl-4-(2,2,2- trifluoroethoxy)-2-pyridinyl] methyl]sulfinyl]-1H-benz imidazole	138530-95-7	C₁₇H₁₈F₃N₃O₂S / 385.40	

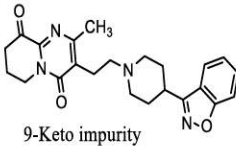
90	Chloro Impurity	2-Chloromethyl-3-methyl-4-(2,2,2-trifluoroethoxy)pyridine hydrochloride	127337-60-4	$C_9H_9ClF_3NO$ / 239.62	 <p>Chloro Impurity</p>
Rabeprazole Sodium					
91	EP Impurity-A	2-[[4-(3-Methoxypropoxy)-3-methyl-pyridin-2-yl]methyl sulfonyl]benzimidazole	117976-47-3	$C_{18}H_{21}N_3O_4S$ / 375.44	
92	EP Impurity-B	2-[[4-(3-Methoxypropoxy)-3-methyl-pyridin-2-yl]methyl sulfanyl]benzimidazole	117977-21-6	$C_{18}H_{21}N_3O_2S$ / 343.44	
93	EP Impurity-C	1-(1H-Benzimidazol-2-yl)-3-methyl-4-oxo-1,4-dihydro pyridine-2-carboxylic acid (U/D)	1163685-30-0	$C_{14}H_{11}N_3O_3$ / 269.26	
94	EP Impurity-D	2-[[[1-Oxide-4-(3-methoxypropoxy)-3-methyl-2-pyridinyl] methyl]sulfinyl]-1H-benzimidazole	924663-38-7	$C_{18}H_{21}N_3O_4S$ / 375.44	
95	EP Impurity-E	2-[[4-(3-Methoxy-3-methyl-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole	924663-38-7	$C_{15}H_{15}N_3O_2S$ / 301.36	

96	EP Impurity-F	2-Mercaptobenzimidazole	583-39-1	$C_7H_6N_2S$ / 150.20	
97	EP Impurity-G	2-[[4-Methoxy-3-methyl-2-pyridinyl)methyl]sulfanyl]-1H-benzimidazole	102804-82-0	$C_{15}H_{15}N_3OS$ / 285.36	
98	EP Impurity-H	2-[(RS)-[(4-Chloro-3-methylpyridin-2-yl)methyl]sulphonyl]-1H-benzimidazole;	168167-42-8	$C_{14}H_{12}ClN_3OS$ / 305.78	
99	EP Impurity-I	2-[[[1-Oxide-4-(3-methoxypropoxy)-3-methyl-2-pyridinyl] methyl]sulfonyl]-1H-benzimidazole	924663-37-6	$C_{18}H_{21}N_3O_5S$ / 391.44	
100	EP Impurity-K	2-Hydroxybenzimidazole	615-16-7	$C_7H_6N_2O$ / 134.14	
101	(S)-Isomer	Sodium (S)-2-[[4-(3-methoxypropoxy)-3-methyl-pyridin-2-yl]methylsulfinyl] benzimidazole	171440-19-0	$C_{19}H_{25}N_3O_3S$ / 375.49	
102	Chloro impurity	2-Chloromethyl-3-methyl-4-(3-methoxypropoxy)pyridine hydrochloride	153259-31-5	$C_{11}H_{17}Cl_2NO_2$ / 266.16	

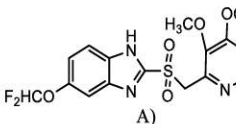
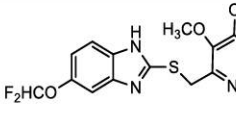
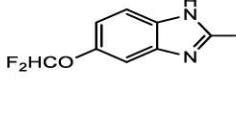
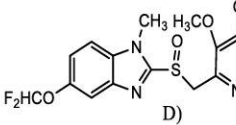
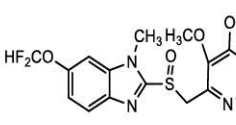
103	EP Impurity-H Sulfide	2-[(RS)-[(4-Chloro-3-methylpyridin-2-yl) methyl] sulphinyl]-1H-benzimidazole	103312-62-5	$C_{14}H_{12}ClN_3S$ / 289.78	 EP Impurity-H Sulphi

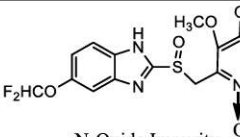
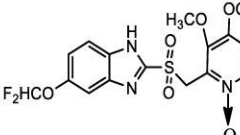
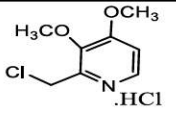
Paliperidone

104	USP Impurity-A	3-Ethyl-9-hydroxy-2-methyl-6,7,8,9-tetrahydro-4H-pyrido [1,2-a]pyrimidin-4-one hydrochloride	849727-64-6	$C_{11}H_{18}N_2O_2$ / 210.27	
105	USP Impurity-B	6-Fluoro-3-(4-piperidiny)-1,2-benzisoxazole hydrochloride	84163-13-3	$C_{12}H_{14}ClFN_2O$ / 256.70	
106	USP Impurity-C	3-(2-Chloroethyl)-9-hydroxy-2-methyl-6,7,8,9-tetrahydro-4H-pyrido-(1,2-a)-pyrimidin-4-one	130049-82-0	$C_{11}H_{17}ClN_2O_2$ / 244.72	
107	USP Impurity-D	3-{2-[4-(6-Fluoro-1,2-benz isoxazol-3-yl) piperidin-1-yl] ethyl}-9-hydroxy-2-methyl-6,7,8,9-tetrahydro-4H-pyrido [1,2-a]pyrimidin-4-one N-oxide	761460-08-6	$C_{23}H_{27}FN_4O_4$ / 442.48	

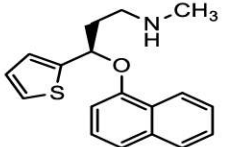
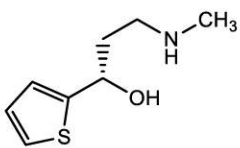
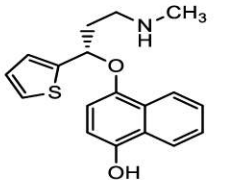
108	9-Keto Impurity	3-[2-[4-(6-Fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]ethyl]-7,8-dihydro-2-methyl-4H-pyrido[1,2-a]pyrimidine-4,9(6H)-dione	1189516-65-1	$C_{23}H_{25}FN_4O_3$ / 424.47	 <p>9-Keto impurity</p>
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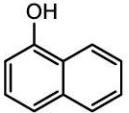
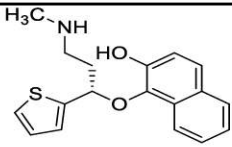
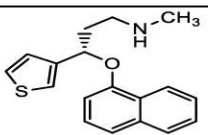
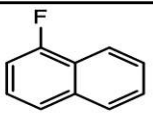
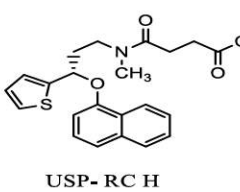
Pantoprazole Impurities

109	EP Impurity-A	5-(Difluoromethoxy)-2-[[[(3,4-dimethoxy-2-pyridinyl) methyl]sulfonyl]-1H-benzimidazole	127780-16-9	$C_{16}H_{15}F_2N_3O_5S$ / 399.37	 <p>A)</p>
110	EP Impurity-B	5-(Difluoromethoxy)-2-[[[(3,4-dimethoxy-2-pyridinyl) methyl]thio]-1H-benzimidazole	102625-64-9	$C_{16}H_{15}F_2N_3O_3S$ / 367.37	 <p>B)</p>
111	EP Impurity-C	5-(Difluoromethoxy)-2-mercapto-1H-benzimidazole	97963-62-7	$C_8H_6F_2N_2OS$ / 216.21	 <p>C)</p>
112	EP Impurity-D&F Mix	5-(Difluoromethoxy)-2-[[[(3,4-dimethoxy-2-pyridinyl) methyl]sulfinyl]-1-methyl -1H-benzimidazole & 6-(Difluoromethoxy)-2-[[[(3,4-dimethoxy-2-pyridinyl) methyl]sulfinyl]-1-methyl -1H-benzimidazole	624742-53-6 & 721924-06-7	$C_{17}H_{17}F_2N_3O_4S$ / 397.40	 <p>D)</p>  <p>F)</p>
113	N-oxide Impurity	5-(Difluoromethoxy)-2-[[[(3,4-	953787-60-5	$C_{16}H_{15}F_2N_3O_5S$ /	

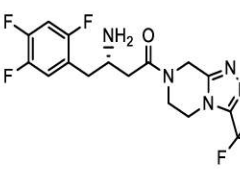
		dimethoxypyridin-2-yl)methyl] sulfinyl} benzimidazol-1-ide N-oxide		399.37	 N-Oxide Impurity
114	Sulphone-N-Oxide	5-(Difluoromethoxy)-2-[[[(3,4-dimethoxypyridin-2-yl)methyl] sulfonyl} benzimidazol-1-ide N-oxide	953787-55-8	$C_{16}H_{15}F_2N_3O_6S$ / 415.37	 Sulphone-N-Oxide Imp
115	Chloro impurity	2-(Chloromethyl)-3,4-dimethoxy pyridinium hydrochloride	72830-09-2	$C_8H_{11}Cl_2NO_2$ / 224.08	 Chloro impurity

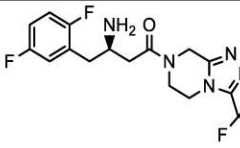
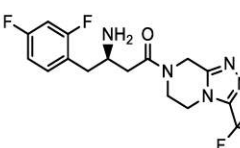
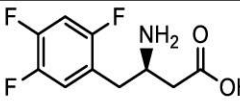
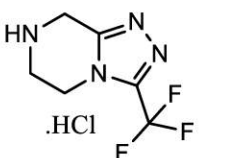
Duloxetine Impurities

116	EP Impurity-A	(3R)-N-Methyl-3-(naphthalen-1-yloxy)-3-(thiophen-2-yl)propan-1-amine HCl	910138-96-4 (HCl Salt)	$C_{18}H_{19}NOS$ / 297.41	
117	EP Impurity-B	(1S)-3-(Methylamino)-1-(thiophen-2-yl)propan-1-ol	116539-55-0	$C_8H_{13}NOS$ / 171.26	
118	EP Impurity-C	4-[(1RS)-3-(Methylamino)-1-(thiophen-2-yl)propyl] naphthalen-1-ol.HCl	949096-01-9 (HBr Salt) (U/D)	$C_{18}H_{19}NO_2S$ / 313.41	

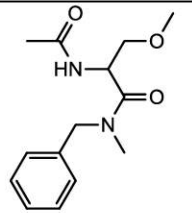
119	EP Impurity-D	Naphthalen-1-ol	90-15-3	$C_{10}H_8O$ / 144.17	
120	EP Impurity-E	2-[(1RS)-3-(Methylamino)-1-(thiophen-2-yl)propyl] naphthalen-1-ol	1033719-36-6 (HCl salt) (U/D)	$C_{18}H_{19}NO_2S$ / 313.41	
121	EP Impurity-F	(3S)-N-Methyl-3-(naphthalen-1-yloxy)-3-(thiophen-3-yl)propan-1-amine.HCl(U/D)	1104890-90-5 (HCl salt)	$C_{18}H_{19}NOS$ / 297.41	
122	EP Impurity-G	1-Fluoronaphthalene	321-38-0	$C_{10}H_7F$ / 146.16	
123	USP RC -H	(S)-4-(Methyl[3-(naphthalen-1-yloxy)-3-(thiophen-2-yl)propyl] amino)-4-oxo butanoic acid ; (S)-Duloxetine Succinamide	199191-66-7	$C_{22}H_{23}NO_4S$ / 397.49	

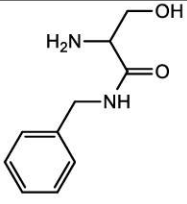
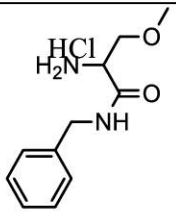
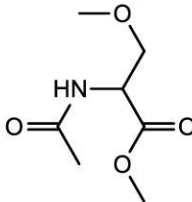
Sitagliptin Impurities

124	EP Impurity-A	(S)-4-Oxo-4-[3-(trifluoromethyl)-5,6-dihydro [1,2,4] triazolo[4,3-a]pyrazin-7(8H)-yl]-1-(2,4,5-trifluorophenyl) butan-2-amine phosphate; (S)-Sitagliptin Isomer		$C_{16}H_{15}F_6N_5O$ / 407.31	
125	EP Impurity-B	(R)-4-Oxo-4-[3-(trifluoromethyl)-5,6-dihydro[1,2,4] triazolo[4,3-a]pyrazin-7(8H)-	1345822-87-8.(U/D)	$C_{16}H_{16}F_5N_5O$ /	

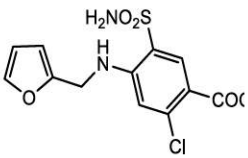
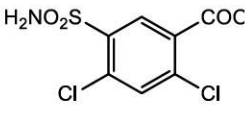
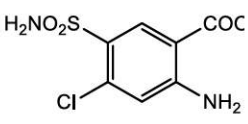
		yl]-1-(2,5-difluoro phenyl) butan-2-amine phosphate; Sitagliptin 4-Desfluoro Impurity		389.32	
126	EP Impurity-C	(R)-4-Oxo-4-[3-(trifluoro methyl)-5,6-dihydro[1,2,4] triazolo[4,3-a]pyrazin-7(8H)-yl]-1-(2,4-difluoro phenyl) butan-2-amine phosphate; Sitagliptin 5-Desfluoro Impurity	1345822-86-7.(U/D)	$C_{16}H_{16}F_5N_5O$ / 389.32	
127	Sitagliptin FP Impurity-E	(3R)-3-Amino-4-(2,4,5-trifluorophenyl)butanoic acid	936630-57-8	$C_{10}H_{10}F_3NO_2$ / 233.19	
128	Sitagliptin Triazole.HCl	3-(Trifluoromethyl)-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrazine hydrochloride	762240-92-6	$C_6H_8ClF_3N_4$ / 228.60	 Triazole.HCl

Lacosamide Impurities

129	N-Methyl Lacosamide	2-acetamido-N-benzyl-3-methoxy-N-methyl propanamide		$C_{14}H_{20}N_2O_3$ / 264.32	
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130	Desacetyl Desmethyl Lacosamide	2-amino-N-benzyl-3-hydroxypropanamide	175481-39-7	C ₁₀ H ₁₄ N ₂ O ₂ /194.23	
131	N-Desacetyl Lacosamide HCl	2-amino-N-benzyl-3-methoxypropanamide hydrochloride	196601-69-1	C ₁₁ H ₁₇ ClN ₂ O ₂ /244.72	
132	N-acetyl O-methyl L-serine methyl ester:-	methyl 2-acetamido-3-methoxypropanoate		C ₇ H ₁₃ NO ₄ /175.18	

Furosemide Impurities

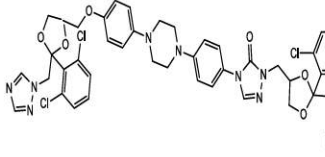
133	Furosemide Impurity-A	2-Chloro-4-[(furan-2-yl methyl) amino]-5-sulfamoylbenzoic acid	4818-59-1	C ₁₂ H ₁₁ ClN ₂ O ₅ S/330.74	
134	Furosemide Impurity-B	2,4-Dichloro-5-sulfamoylbenzoic Acid	2736-23-4	C ₇ H ₅ Cl ₂ NO ₄ S/270.09	
135	Furosemide Impurity-C	2-Amino-4-chloro-5-sulfamoylbenzoic acid	3086-91-7	C ₇ H ₇ ClN ₂ O ₄ S / 250.66	

136	Furosemide Impurity-D	2,4-Bis[(Furan-2-ylmethyl) amino]-5-sulfamoylbenzoic acid	5046-19-5	$C_{17}H_{17}N_3O_6S$ / 391.4	
137	Furosemiide Impurity-E	2,4-Dichlorobenzoic acid	50-84-0	$C_6H_4Cl_2O_2$ / 191.01	
138	Furosemide Impurity-F	4-Chloro-5-sulfamoyl-2-[[[(2RS)-tetrahydrofuran-2-yl) methyl]amino]benzoic acid	4793-38-8	$C_{12}H_{15}ClN_2O_5S$ / 334.78	

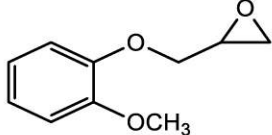
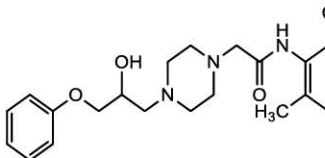
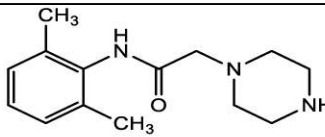
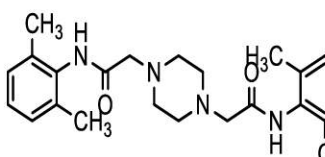
ITRACONAZOLE Impurities

139	EP Impurity-A	4-[4-[4-(4-Methoxyphenyl) piperazin-1-yl]phenyl]-2-[(1 RS)-1-methylpropyl]-2,4-dihydro-3H-1,2,4-triazol-3-one	252964-68-4	$C_{23}H_{29}N_5O_2$ / 407.51	
140	EP Impurity-B	4-[4-[4-[4-[cis-2-(2,4-Di chl orophenyl)-2-(4H-1,2,4-tria zol-4-ylmethyl)-1,3-dioxolan -4-yl]methoxy]phenyl] piperazin-1-yl]phenyl]-2-[(1RS)-1-methylpropyl]-2,4-dihydro-3H-1,2,4-triazol-3-one	854372-77-3 (U/D)	$C_{35}H_{38}Cl_2N_8O_4$ / 705.63	

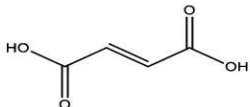
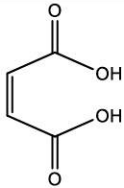
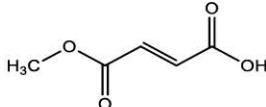
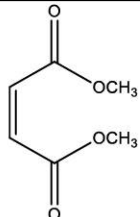
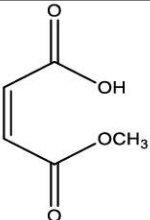
141	EP Impurity-C	4-[4-[4-[4-[[cis-2-(2,4-Dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxyphenyl]piperazin-1-yl]phenyl]-2-propyl-2,4-dihydro-3H-1,2,4-triazol-3-one	74855-91-7	C34H36Cl2N8O4 / 691.61	
142	EP Impurity-D	4-[4-[4-[4-[[cis-2-(2,4-Dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]piperazin-1-yl]phenyl]-2-(1-methylethyl)-2,4-dihydro-3H-1,2,4-triazol-3-one	89848-49-7	C34H36Cl2N8O4/ 91.61	
143	EP Impurity-E	4-[4-[4-[4-[[trans-2-(2,4-Dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]piperazin-1-yl]phenyl]-2-[(1RS)-1-methylpropyl]-2,4-dihydro-3H-1,2,4-triazol-3-one	252964-65-1	C35H38Cl2N8O4/ 705.63	
144	EP Impurity-F	2-Butyl-4-[4-[4-[4-[[cis-2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]piperazin-1-yl]phenyl]-2,4-dihydro-3H-1,2,4-triazol-3-one	89848-51-1	C35H38Cl2N8O4 / 705.63	
		4-[4-[4-[4-[[cis-2-(2,4-Dichlo			

145	EP Impurity-G	rophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]piperazin-1-yl]phenyl)-2-[[cis-2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methyl]-2,4-dihydro-3H-1,2,4-triazol-3-one		C44H41Cl I4N11O6/ 961.68	
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RANOLAZINE Impurities

146	USP Related Compound-A	1-(2,3-Epoxypropoxy)-2-methoxybenzene	2210-74-4	C10H12O3 / 180.20	
147	USP Related Compound-B	N-(2,6-Dimethylphenyl)-4-(2-hydroxy-3-phenoxypropyl)-1-piperazineacetamide	755711-09-2	C23H31N3O3 / 397.51	
148	USP Related Compound-C	N-(2,6-Dimethylphenyl)-1-piperazineacetamide	5294-61-1	C14H21N3O / 247.34	
149	USP Related Compound-D	N,N'-bis(2,6-Dimethylphenyl)-1,4-piperazine diacetamide	380204-72-8	C24H32N4O2 / 408.54	

Di Methyl Fumarate Impurities

150	Fumaric Acid	(E)-Butenedioic acid	110-17-8	C ₄ H ₄ O ₄ / 116.07	
151	Malic Acid	(Z)-Butenedioic acid	617-48-1	C ₄ H ₄ O ₄ / 116.07	
152	Mono Methyl Fumarate	Fumaric acid mono methyl ester	2756-87-8	C ₅ H ₆ O ₄ / 130.10	
153	Dimethyl maleate	Dimethyl (Z)-but-2-enedioate.	624-48-6	C ₆ H ₈ O ₄ / 144.13	
154	Mono methyl maleate	Maleic acid monomethyl ester	3052-50-4	C ₅ H ₆ O ₄ / 130.10	
126	Lamotrigine	All Ep,Bp,USp impurities available.			
127	Atomoxetine, duloxetine, dapoxetine and fluoxetine	All Ep,Bp,USp impurities available.			

128	perindopril	Available impurity A,B,C,D,E,F.			
129	dapoxetine	All Ep,Bp,USp impurities available.			
	Lacosamide	All Ep,Bp,USp impurities available.			
	Doxepine	All Ep,Bp,USp impurities available.			
	buspirone	All impurities			
	lisinopril	Impurity a, b,c,d			
	azathioprine	Imp a,b,c,d,e,f.			
	glipizide	All Ep,Bp,USp impurities available.			
	glimepiride	All Ep,Bp,USp impurities available.			
	glibenclamide	All Ep,Bp,USp impurities available.			
	Ropinirole	Dimer and other impurities are available.			
	Piroxicam	All Ep,Bp,USp impurities available.			
	meloxicam	All Ep,Bp,USp impurities available.			
	procyclidine	All Ep,Bp,USp impurities available.			
	montelukast	All Ep,Bp,USp impurities available.			
	buspirone	All Ep,Bp,USp impurities available.			
	Erlotinib	All impurities			

	promethazine	All impurities			
	Paliperidone, risperidone	All impurities			
	Perindopril	All impurities			
	fenofibrate	All impurities			
	RANOLAZINE Impurities	All impurities			
	Buspirone	All impurities			

【お問合せ】

 **ナミキ商事株式会社** 医薬化学品部

(部署直通) tel : 050-5527-9830

(代表) tel: 03-3354-4026 fax: 03-3352-2196

e-mail: info@namiki-s.co.jp <http://www.namiki-s.co.jp/>

