

Impurity Standard Catalog

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|-------------------------------------|---------------------------|---------------|
| VL17001 | Acebutolol related Compound A | Acebutolol Hydrochloride | N/A |
| VL284001 | Aceclofenac impurity F | Aceclofenac | 100499-89-6 |
| VL11002 | Acetazolamide Impurity E | Acetazolamide | 827026-60-8 |
| VL11003 | Acetazolamide Impurity A | Acetazolamide | 60320-32-3 |
| VL287001 | Acetylsalicylic Acid Impurity D | Acetylsalicylic Anhydride | N/A |
| VL12001 | Acitretin Related Compound B | Acitretin | N/A |
| VL13002 | 7-Acyclovir Impurity | Acyclovir | N/A |
| VL13003 | Di-Acetyl Acyclovir Impurity | Acyclovir | N/A |
| VL259001 | Alfuzosin Hydrochloride | Alfuzosin | 81403-68-1 |
| VL16001 | Allopurinol Related Compound B | Allopurinol | N/A |
| VL16002 | Allopurinol Related Compound D | Allopurinol | N/A |
| VL255001 | Allyl Impurity | Allyl Impurity | N/A |
| VL255003 | Allyl Amine | Allyl Impurity | 107-11-9 |
| VL255002 | 2-chloro allyl Impurity | Allyl Impurity | N/A |
| VL264001 | Almotriptan Impurity A | Almotriptan | N/A |
| VL264002 | Almotriptan Impurity B | Almotriptan | N/A |
| VL264003 | Almotriptan Impurity C | Almotriptan | N/A |
| VL219001 | Ambroxol Impurity A | Ambroxol | 50739-76-9 |
| VL219002 | Ambroxol Impurity B | Ambroxol | N/A |
| VL219003 | Ambroxol Impurity C | Ambroxol | 50910-53-7 |
| VL219004 | Ambroxol Impurity D | Ambroxol | 107814-37-9 |
| VL219005 | Ambroxol Impurity E | Ambroxol | 50910-55-9 |
| VL20001 | 4-Amino phenol | Amino phenol | N/A |
| VL19004 | Amlodipine Related Compound B | Amlodipine | 721958-72-1 |
| VL19005 | Amlodipine Related Compound A | Amlodipine | 88150-62-3 |
| VL19006 | Amlodipine Related Compound F | Amlodipine | 289042-12-2 |
| VL19007 | Amlodipine Related Compound H | Amlodipine | 318465-73-5 |
| VL19008 | Amlodipine Related Compound D | Amlodipine | 1216406-90-4 |
| VL19001 | Amlodipine Related Compound E | Amlodipine | 140171-65-9 ; |
| VL15001 | Amoxicillin Related Compound A | Amoxicillin | N/A |
| VL190010 | Amlodipine Besilate Impurity G (EP) | Amlodipine | N/A |
| VL15002 | Amoxicillin Related Compound B | Amoxicillin | N/A |
| VL15003 | Amoxicillin Related Compound C | Amoxicillin | N/A |

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| VL15004 | Amoxicillin Related Compound I | Amoxicillin | N/A |
| VL246001 | ANAMICA(O-FLUORO NITROBENZENE) | ANAMICA | N/A |
| VL21001 | Anastrozole | Anastrozole | N/A |
| VL197002 | N,N-bis(2-bromoethyl)amine HCl | Aripiprazole Dimer | 821-48-7 |
| VL197004 | 7-(4-chlorobutoxy)quinolin-2(1H)-one | Aripiprazole Dimer | 120004-79-7 |
| VL197003 | 2,7-Dihydroxy quinoline | Aripiprazole Dimer | 86-95-3 |
| VL197001 | Aripiprazole Dimer (Aripiprazole 4,4'-Dimer) | Aripiprazole Dimer | N/A |
| VL258001 | Ascorbic Acid | Ascorbic acid | N/A |
| VL380001 | Asenapine N-Oxide Impurity | Asenapine | N/A |
| VL380002 | N-Desmethyl Asenapine | Asenapine | N/A |
| VL280001 | Aspartame impurity B (L-aspartyl-L-phenylalanine) | Aspartame | N/A |
| VL10010 | Atorvastatin Cyclo FP Impurity | Atorvastatin | N/A |
| VL10015 | Atorvastatin Impurity F/ Diamino Impurity | Atorvastatin | N/A |
| VL10005 | Atorvastatin Related compound B/(3S,5R isomer) | Atorvastatin | 887196-25-0 |
| VL10003 | Atorvastatin Related compound D/ Epoxide Impurity | Atorvastatin | 148146-51-4 |
| VL10008 | Oxo Atorvastatin Impurity | Atorvastatin | N/A |
| VL10013 | Atorvastatin Methyl Ester | Atorvastatin | 345891-62-5 |
| VL197005 | Atorvastatin -3-O-Methyl (Atorvastatin Impurity G) | Atorvastatin | 887324-53-0 |
| VL197006 | Atorvastatin Lactone / Atorvastatin Related Compound H | Atorvastatin | N/A |
| VL197007 | Atorvastatin Related Compound I/ Acetonide Impurity | Atorvastatin | N/A |
| VL197008 | Atorvastatin tert-Butyl Ester | Atorvastatin | 134395-00-9 |
| VL1970010 | Desfluoro Atorvastatin (Atorvastatin Related Compound A) | Atorvastatin | 433289-83-9 |
| VL1970012 | Atorvastatin Related compound C/ Difluoro Impurity | Atorvastatin | 693793-53-2 |
| VL1970011 | Atorvastatin Related Compound C/ Difluoro Impurity | Atorvastatin | N/A |
| VL10020 | Atorvastatin related Compound E/ Atorvastatin Isomer Impurity/3S 5S isomer | Atorvastatin | 1105067-88-6 |
| VL10021 | Atorvastatin related Compound E/ Atorvastatin Isomer Impurity/3S 5S isomer | Atorvastatin | N/A |
| VL23001 | Azacitidine Related Compound A | Azacitidine | N/A |
| VL23002 | Azacitidine impurity | Azacitidine | N/A |
| VL252001 | Azilsartan K Medoxomil Impurity-1 (ARA-3) | Azilsartan | N/A |
| VL252002 | Azilsartan K Medoxomil Impurity-6 (Des-Ethyl Impurity) | Azilsartan | N/A |

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| VL252004 | Azilsartan K Medoxomil Impurity-7 (2-EHA Impurity) | Azilsartan | N/A |
| VL252005 | Azilsartan K Medoxomil Impurity-5 (Bis Impurity) | Azilsartan | N/A |
| VL252006 | Azilsartan K Medoxomil Impurity-4 | Azilsartan | N/A |
| VL252007 | Azilsartan K Medoxomil Impurity-3 (Methyl Ester) | Azilsartan | N/A |
| VL252008 | Azilsartan K Medoxomil Impurity-2 (Ethyl Ester) | Azilsartan | N/A |
| VL252003 | Azilsartan K Medoxomil Impurity-8 (Diacetyl Impurity) | Azilsartan | N/A |
| VL186001 | Azithromycin Impurity L | Azithromycin | 90503-06-3 |
| VL186002 | Azithromycin Impurity J | Azithromycin | 117693-41-1 |
| VL186003 | Azithromycin Impurity I | Azithromycin | 172617-84-4 |
| VL186004 | Azithromycin Impurity F | Azithromycin | 612069-28-0 |
| VL186008 | Azithromycin Impurity B | Azithromycin | 307974-61-4 |
| VL186005 | Azithromycin Impurity M | Azithromycin | N/A |
| VL186006 | Azithromycin Impurity N | Azithromycin | N/A |
| VL186007 | Azithromycin Impurity E | Azithromycin | 612069-27-9 |
| VL228001 | Benzene Sulfonic Acid | Benzene Sulfonic Acid | N/A |
| VL229001 | Benzothiadiazine Related Compound A | Benzothiadiazine | N/A |
| VL275001 | Beta-naphthol | Beta-naphthol | N/A |
| VL178001 | Betahistine Impurity C | Betahistine | N/A |
| VL276001 | Betahistine Impurity C (n-methyl-bis[beta-(2-pyridyl)ethyl]amine trihydrochloride) | Betahistine | N/A |
| VL191002 | Bisoprolol Impurity-A | Bisoprolol | N/A |
| VL28001 | Bosentan dimer impurity | Bosentan dimer | N/A |
| VL29001 | Bosentan related compound E | Bosentan Monohydrate | N/A |
| VL207001 | Brinzolamide Impurity B | Brinzolamide | N/A |
| VL274001 | Bromfenac Sodium impurity- D | Bromfenac | N/A |
| VL274003 | Bromfenac Sodium impurity- B | Bromfenac | N/A |
| VL274004 | Bromfenac Sodium impurity- A | Bromfenac | N/A |
| VL274002 | Bromfenac Sodium Impurity - C | Bromfenac | N/A |
| VL24001 | Bromhexine Impurity A | Bromhexine | 50739-76-9 |
| VL24002 | Bromhexine Impurity B | Bromhexine | 50910-55-9 |
| VL24003 | Bromhexine Impurity E | Bromhexine | N/A |
| VL24004 | Bromhexine Impurity D | Bromhexine | 132004-28-5 |
| VL253001 | Bumetanide Impurity 5 | Bumetanide | N/A |
| VL253002 | Bumetanide Impurity 3 | Bumetanide | N/A |

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| VL253003 | Bumetanide Impurity 4 | Bumetanide | N/A |
| VL253004 | Bumetanide Amino Analogue (Bumetanide Impurity 6) | Bumetanide | N/A |
| VL253005 | Bumetanide EHA Analogue (Bumetanide Impurity – HX) | Bumetanide | N/A |
| VL25006 | 4-chloro Bupropion(USP API) | Bupropion | N/A |
| VL25007 | 5-chloro Bupropion(USP API) | Bupropion | N/A |
| VL25005 | Bromochloro-propionophenone (USP API) | Bupropion | N/A |
| VL25011 | Bupropion Amine (USP ER tablet) | Bupropion | N/A |
| VL25002 | Bupropion Dione Darivative (USP API) | Bupropion | N/A |
| VL25004 | Chloropropionophenone (USP API) | Bupropion | N/A |
| VL25010 | Erythrohydroxy Bupropion | Bupropion | N/A |
| VL25003 | o-Bupropion (USP API) | Bupropion | N/A |
| VL25008 | R,S,S-Thiomorpholine derivative (USP ER tablet) | Bupropion | N/A |
| VL25009 | S,S,S-Thiomorpholine derivative (USP ER tablet) | Bupropion | N/A |
| VL25012 | Threohydroxy Bupropion | Bupropion | N/A |
| VL25001 | Deschloro Bupropion (USP API) | Bupropion | N/A |
| VL25013 | 2-Amino-1-(3-chlorophenyl)-1-propanone HCl | Bupropion | N/A |
| VL249001 | Bupirone Impurity E | Bupirone | N/A |
| VL249002 | Bupirone Impurity K | Bupirone | 1075-89-4 |
| VL25008 | Bupirone HCl Impurity J | Bupirone | N/A |
| V26001 | Butyric Acid | Butyric Acid | N/A |
| VL167001 | EP Impurity D | Caffeine | N/A |
| VL168001 | EP Impurity C | Calcium Levofolinate pentahydr | N/A |
| VL290003 | Candesartan Impurity 7 (Des-alkoxy ethyl ester analogue) | Candesartan | N/A |
| VL290002 | Candesartan Impurity 6 (1-Ethyltetrazol-5-yl-candensartan cilexetil) | Candesartan | N/A |
| VL290001 | Candesartan Impurity 5 (Des-alkoxy methyl ester analogue) | Candesartan | N/A |
| VL243001 | Capecitabine Related Compound A | Capecitabine | N/A |
| VL243002 | Capecitabine Related Compound B | Capecitabine | N/A |
| VL243003 | Capecitabine Related Compound C | Capecitabine | N/A |
| VL210001 | Carbamazepinedione | Carbamazepinedione | N/A |
| VL169001 | EP Impurity A | Carbaryl | N/A |
| VL170001 | EP Impurity C | Carbasalate Calcium | N/A |
| VL171001 | EP Impurity A | Carbimazole | N/A |
| VL172001 | EP Impurity B | Carboplatin | N/A |

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| VL34001 | Carprofen Related Compound A | Carprofen | N/A |
| VL35001 | Carvedilol Related Compound E | Carvedilol | N/A |
| VL35002 | Carvedilol Related Compound D | Carvedilol | N/A |
| VL35003 | Chloroquine Related Compound A | Carvedilol | N/A |
| VL160001 | EP Impurity A | Cefadroxil Monohydrate | N/A |
| VL160002 | EP Impurity G | Cefadroxil Monohydrate | N/A |
| VL33001 | Cefdinir | Cefdinir | N/A |
| VL32002 | Cefixime Impurity A | Cefixime | N/A |
| VL163001 | Cefuroxime Axetil | Cefuroxime | N/A |
| VL30001 | Celecoxib isomeric impurity | Celecoxib | N/A |
| VL251001 | Cephalexin Impurity J | Cephalexin | N/A |
| VL251002 | Cephalexin Impurity K | Cephalexin | N/A |
| VL251003 | Cephalexin Phenyl Glycin Impurity | Cephalexin | N/A |
| VL251004 | Cephalexin Impurity D | Cephalexin | N/A |
| VL251005 | Cephalexin Impurity C | Cephalexin | N/A |
| VL3300011 | Cetirizine 4-chlorobenzhydrol Impurity | Cetirizine | N/A |
| VL3300012 | Cetirizine 4-chlorobenzophenone Impurity | Cetirizine | N/A |
| VL330007 | Cetirizine Impurity A/ Chlorobenzhydryl piperazine (CBHP) | Cetirizine | 303-26-4 |
| VL3300010 | Cetirizine Impurity B (Cetirizine acetic acid) | Cetirizine | N/A |
| VL3300013 | Cetirizine Impurity C | Cetirizine | N/A |
| VL330008 | Cetirizine Impurity D | Cetirizine | N/A |
| VL330009 | Cetirizine Impurity E | Cetirizine | N/A |
| VL330005 | Cetirizine Impurity F | Cetirizine | N/A |
| VL3300014 | Cetirizine Impurity G (Cetirizine ethanol) | Cetirizine | N/A |
| VL3300015 | Cetirizine Methacathinone | Cetirizine | N/A |
| VL330002 | Cetirizine N-oxide | Cetirizine | N/A |
| VL161001 | 4-Chloro acetanilide | Chloro acetanilide | N/A |
| VL231001 | Cinacalcet-N-Oxide | Cinacalcet-N-Oxide | N/A |
| VL195001 | Cinnarizine Impurity A | Cinnarizine | N/A |
| VL195002 | Cinnarizine Impurity E | Cinnarizine | N/A |
| VL204003 | Ciprofloxacin Impurity-E | Ciprofloxacin | 105394-83-0 |
| VL204001 | Ciprofloxacin impurity F | Ciprofloxacin | N/A |
| VL257001 | Citric Acid | citric acid | N/A |
| VL281001 | 2,6-dichloroaniline Impurity | Clonidine | 608-31-1 |
| VL281006 | Clonidine impurity B | Clonidine | N/A |

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| VL281006 | Clonidine impurity B | Clonidine | N/A |
| VL281002 | N-(2,6-dichlorophenyl)formamide | Clonidine | 10113-35-6 |
| VL281003 | N-(2,6-dichlorophenyl)acetamide/2,6-Dichloroacetanilide | Clonidine | N/A |
| VL281005 | 2,6 dichlorophenyl carbonimidic dichloride | Clonidine | 17700-54-8 |
| VL162001 | EP Impurity C | Cloпамide | N/A |
| VL31001 | Clopidogrel Related Compound B | Clopidogrel | 144750-52-7 |
| VL31003 | Clopidogrel Related Compound A | Clopidogrel | 144750-42-5 |
| VL31004 | Clopidogrel Related Compound C | Clopidogrel | 120202-71-3 |
| VL164001 | Clotrimazole related compound A | Clotrimazole | 66774-02-5 |
| VL187001 | Bromoquat (Colsevelam Impurity 1) | Colsevelam | 32765-81-4 |
| VL187002 | Decylamine HCl (Colsevelam Impurity 5) | Colsevelam | 143-09-9 |
| VL187003 | Didecylamine HCL (Colsevelam Impurity 6) | Colsevelam | 2486-84-2 |
| VL187004 | Aziobis (Colsevelam Impurity 7) | Colsevelam | 2997-92-4 |
| VL187005 | Aminoquat (Colsevelam Impurity 2) | Colsevelam | 33968-67-1 |
| VL187006 | Decylaminoquat (Colsevelam Impurity 3) | Colsevelam | N/A |
| VL187007 | Aminodihexylquat (Colsevelam Impurity 4) | Colsevelam | N/A |
| VL166001 | Cyclobenzaprine Impurity | Cyclobenzaprine hydrochloride | N/A |
| VL245001 | Cyclohexanone | Cyclohexanone | N/A |
| VL165001 | Cyclophosphamide Impurity A | Cyclophosphamide | 821-48-7 |
| VL165002 | Cyclophosphamide Impurity B | Cyclophosphamide | 158401-52-6 |
| VL218002 | Cyclosporine B | Cyclosporine | 63775-95-1 |
| VL218003 | Cyclosporine C | Cyclosporine | 59787-61-0 |
| VL218004 | Cyclosporine D | Cyclosporine | 63775-96-2 |
| VL218006 | Cyclosporine Impurity H | Cyclosporine | 83602-39-5 |
| VL218007 | Cyclosporine Dihydro Impurity | Cyclosporine | 59865-15-5 |
| VL42001 | Dantrolene Related compound C | Dacarbazine | N/A |
| VL42002 | EP Impurity B | Dacarbazine | N/A |
| VL42003 | Dacarbazine Related compound A | Dacarbazine | N/A |
| VL43001 | Darifenacin Amide Impurity | Darifenacin | N/A |
| VL260001 | Dealkyl Propafenone/N-Despropyl propafenone | Dealkyl Propafenone | N/A |
| VL45001 | EP Impurity A | Dequalinium chloride | N/A |
| VL44001 | EP Impurity C | Desflurane | N/A |
| VL41001 | Desloratadine N-Formyl Impurity | Desloratadine | N/A |
| VL46001 | Desloratadine | Desloratadine | N/A |

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| VL46002 | N-oxide Impurity | Desloratadine | N/A |
| VL46003 | Deschloro Desloratadine | Desloratadine | N/A |
| VL273001 | 17- Oxo Dexamethasone | Dexamethasone | N/A |
| VL200001 | Dextromethorphan Impurity-D | Dextromethorphan | N/A |
| VL200002 | Dextromethorphan Impurity A | Dextromethorphan | N/A |
| VL158001 | Diacerein impurity G | Diacerein | N/A |
| VL158002 | Diacerein Impurity F | Diacerein | 13928-72-8 |
| VL158003 | Diacerein Monoacetyl rhein - I / Diacerein Impurity D / Hydrolysis-1 | Diacerein | N/A |
| VL158004 | Diacerein Monoacetyl rhein-II / Diacerein Impurity E / Hydrolysis-2 | Diacerein | N/A |
| VL158006 | Diacerein Impurity B (Aloe-emodin) | Diacerein | 481-72-1 |
| VL158007 | Diacerein Impurity H (triacetyl aloe emodin) | Diacerein | N/A |
| VL158008 | Diacerein Impurity C (Rhein) | Diacerein | 478-43-3 |
| VL48005 | Diclofenac Impurity F | Diclofenac | N/A |
| VL48006 | Isopropyl ester of Diclofenac | Diclofenac | N/A |
| VL48003 | Diclofenac Impurity A | Diclofenac | N/A |
| VL48004 | Diclofenac Related Compound | Diclofenac | N/A |
| VL230001 | Diethyldithiocarbamate Impurity | Diethyldithiocarbamate | N/A |
| VL177001 | Diphenhydramine Impurity A | Diphenhydramine | 53499-40-4 |
| VL177002 | Diphenhydramine Impurity D | Diphenhydramine | N/A |
| VL177003 | Diphenhydramine Impurity E | Diphenhydramine | N/A |
| VL177004 | Diphenhydramine N oxide Impurity | Diphenhydramine | 3922-74-5. |
| VL177005 | Diphenhydramine Impurity B | Diphenhydramine | N/A |
| VL177006 | Diphenhydramine Impurity C | Diphenhydramine | N/A |
| VL47003 | Dipyridamole Impurity -D | Dipyridamole | N/A |
| VL47004 | Dipyridamole Impurity G | Dipyridamole | 1913545 |
| VL47001 | Dipyridamole Impurity -A | Dipyridamole | 16982-40-4 |
| VL47005 | Dipyridamole Impurity -B | Dipyridamole | 16908-47-7 |
| VL47008 | Dipyridamole Impurity F | Dipyridamole | N/A |
| VL47006 | Dipyridamole Impurity -C | Dipyridamole | 54093-92-4 |
| VL47007 | Dipyridamole Impurity -E | Dipyridamole | N/A |
| VL157001 | EP Impurity A | Disodium Edetate | N/A |
| VL155001 | EP Impurity A | Dithranol | N/A |
| VL155002 | EP Impurity B | Dithranol | N/A |
| VL156001 | EP Impurity A | Dobutamine Hydrochloride | N/A |

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| VL156002 | EP Impurity B | Dobutamine Hydrochloride | N/A |
| VL49001 | EP Impurity C (7-epi-docetaxel) | Docetaxel Trihydrate | N/A |
| VL49002 | EP Impurity C(10-dehydroxy-10-oxodocetaxel) | Docetaxel Trihydrate | N/A |
| VL49003 | EP Impurity D (10-dehydroxy-10-oxo-7epi-docetaxel) | Docetaxel Trihydrate | N/A |
| VL173003 | Donepezil Open Ring Impurity | Donepezil | N/A |
| VL173005 | Hydroxy Donepezil Impurity | Donepezil | N/A |
| VL36001 | Dorepenem Impurity | Dorepenem monohydrate | N/A |
| VL37001 | Dorzolamide Impurity B | Dorzolamide | 120279-37-0 |
| VL37002 | Dorzolamide Impurity D | Dorzolamide | 122028-16-4 |
| VL159001 | Doxycycline related compound-C (4-epidoxycycline) | Doxycycline | N/A |
| VL39001 | Doxylamine impurity-C | Doxylamine | N/A |
| VL38001 | Doxylamine Succinate Impurity-B | Doxylamine | N/A |
| VL38002 | Doxylamine Succinate Impurity-D | Doxylamine | N/A |
| VL37003 | Doxylamine Succinate Impurity A | Doxylamine | N/A |
| VL202001 | Duloxetine Impurity- A | Duloxetine | N/A |
| VL202002 | Duloxetine EP Impurity B | Duloxetine | N/A |
| VL225001 | Dutasteride Beta Isomer | Dutasteride | N/A |
| VL225002 | Dutasteride Acid Impurity | Dutasteride | N/A |
| VL225003 | Dutasteride Dihydro Impurity | Dutasteride | N/A |
| VL225004 | Dutasteride Ester Impurity | Dutasteride | 164656-22-8 |
| VL52001 | EP Impurity A | Ebastine | N/A |
| VL53001 | Ecamsule Related Compound A | Ecamsule | N/A |
| VL53002 | Ecamsule Related Compound B | Ecamsule | N/A |
| VL53003 | Ecamsule Related Compound C | Ecamsule | N/A |
| VL51001 | EP Impurity A | Edetic acid | N/A |
| VL54001 | Emtricitabine Hydroxy Impurity | Emtricitabine | N/A |
| VL54003 | Emtricitabine Carboxylic Acid Impurity | Emtricitabine | N/A |
| VL54006 | Emtricitabine Hydroxy Impurity (FTU Impurity) / Emtricitabine S-Fluorouracil Analog | Emtricitabine | N/A |
| VL54007 | Emtricitabine Sulfoxide Impurity (oxide Impurity) / (Sulfoxide Impurity Isomer 1 And Isomer 2) | Emtricitabine | N/A |
| VL240001 | Emtricitabin Diastereomer | Emtricitabine | N/A |
| VL50001 | EP Impurity I | Enalapril Maleate | N/A |
| VL281004 | Ethylene diamine | Ethylene diamine | N/A |
| VL203002 | Ezetimibe SRR impurity | Ezetimibe | N/A |

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| VL203001 | Ezetimibe SRS Impurity | Ezetimibe | N/A |
| VL55001 | Famciclovir Impurity | Famciclovir | N/A |
| VL55002 | Famciclovir Impurity | Famciclovir | N/A |
| VL56004 | Famotidine Related Compound D | Famotidine | N/A |
| VL56005 | Famotidine Impurity-C | Famotidine | N/A |
| VL56006 | Famotidine Related Compound E | Famotidine | N/A |
| VL56007 | Famotidine Impurity-F | Famotidine | N/A |
| VL63001 | Fenbendazole Related Compound A | Fenbendazole | N/A |
| VL59008 | Fenofibrate Impurity G/Fenofibrate Related Compound C | Fenofibrate | N/A |
| VL59002 | Fenofibrate Related Compound A | Fenofibrate | N/A |
| VL59004 | Fenofibrate Impurity E | Fenofibrate | N/A |
| VL59006 | Fenofibrate Impurity B/Fenofibrate Related Compound B | Fenofibrate | 42017-89-0 |
| VL59007 | Fenofibrate Impurity C | Fenofibrate | 217636-47-0 |
| VL59003 | Fenofibrate Impurity D | Fenofibrate | N/A |
| VL59005 | Fenofibrate Impurity F | Fenofibrate | N/A |
| VL57001 | EP Impurity G | Fentanyl | N/A |
| VL57002 | EP Impurity E | Fentanyl | N/A |
| VL57003 | EP Impurity B | Fentanyl | N/A |
| VL58001 | EP Impurity B | Fentanyl Citrate | N/A |
| VL58002 | EP Impurity E | Fentanyl Citrate | N/A |
| VL261001 | Fexofenadine Impurity B | Fexofenadine | N/A |
| VL261002 | Fexofenadine Impurity C | Fexofenadine | N/A |
| VL261003 | Fexofenadine Impurity D | Fexofenadine | N/A |
| VL261004 | Fexofenadine Impurity A | Fexofenadine | N/A |
| VL59003 | EP Impurity D | Finofibrate | N/A |
| VL60001 | Fluconazole Related Compound A | Fluconazole | N/A |
| VL60002 | Fluconazole Related Compound B | Fluconazole | N/A |
| VL60003 | Fluconazole Related Compound C | Fluconazole | N/A |
| VL62001 | EP Impurity A | Flunarizine | N/A |
| VL64001 | Fluvastatin (3R,5R Isomer) | Fluvastatin Sodium | N/A |
| VL64002 | Fluvastatin (Methyl Ester) | Fluvastatin Sodium | N/A |
| VL234005 | 6, 7-Delta Fulvestrant | Fulvestrant | N/A |
| VL234004 | Fulvestrant sulfone | Fulvestrant | N/A |
| VL234003 | Fulvestrant Extended | Fulvestrant | N/A |
| VL234002 | Fulvestrant β -Isomer | Fulvestrant | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|------------------------------------------------|---------------------------|-------------|
| VL234001 | 6-Keto Fulvestrant | Fulvestrant | N/A |
| VL61001 | Furosemide Impurity-D | Furosemide | N/A |
| VL198001 | Gabapentin Related Compound-A | Gabapentin | N/A |
| VL75001 | Gabapentin Impurity | Gabapentin | N/A |
| VL198003 | Gabapentine Impurity-E | Gabapentin | N/A |
| VL76001 | Ganciclovir Impurity | Ganciclovir | N/A |
| VL239001 | Gatifloxacin Impurity A | Gatifloxacin | N/A |
| VL70001 | Gefitinib Impurity | Gefitinib | N/A |
| VL224001 | Gemcitabine alpha-Anomer | Gemcitabine | N/A |
| VL73001 | EP Impurity A | Gemcitabine Hydrochloride | N/A |
| VL74001 | Gemfibrozil Related Compound A | Gemfibrozil | N/A |
| VL216001 | Glibenclamide Impurity E | Glibenclamide | N/A |
| VL71003 | Glimepiride Related Compound A | Glimepride | N/A |
| VL71004 | Glimepiride Related Compound C | Glimepride | N/A |
| VL71005 | Glimepiride Related Compound D | Glimepride | N/A |
| VL71006 | Glimepiride Related Compound B | Glimepride | N/A |
| VL66003 | Glipizide Related Compound A | Glipizide | N/A |
| VL192001 | Ethyl Carbamate of Glipizide | Glipizide | N/A |
| VL192002 | Methyl Carbamate of Glipizide | Glipizide | N/A |
| VL192003 | Isopropyl Carbamate of Glipizide | Glipizide | N/A |
| VL193001 | Glyburide Impurity | Glyburide | N/A |
| VL68001 | EP Impurity A | Glycerol | N/A |
| VL68002 | EP Impurity B | Glycerol | N/A |
| VL247001 | GOD(2-Amino-5-methyl thiophene-3-carbonitrile) | GOD | N/A |
| VL65001 | Granisetron Related Compound D | Granisetron | N/A |
| VL67001 | EP Impurity E | Guaiacol | N/A |
| VL67002 | EP Impurity A | Guaiacol | N/A |
| VL67003 | EP Impurity C | Guaiacol | N/A |
| VL67004 | EP Impurity D | Guaiacol | N/A |
| VL235003 | Guaifenesin Impurity B | Guaifenesin | N/A |
| VL235002 | Guaifenesin Impurity D | Guaifenesin | N/A |
| VL235001 | Guaifenesin Impurity C | Guaifenesin | N/A |
| VL79001 | Hydralazine Impurity | Hydralazine Hydrochloride | N/A |
| VL80004 | 5-chlorohydrochlorothiazide | Hydrochlorothiazide | 5233-42-1 |
| VL80001 | Hydrochlorothiazide impurity C | Hydrochlorothiazide | 402824-96-8 |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|---------------------------------------------------------------|------------------------------|---------|
| VL80003 | Hydrochlorothiazide Impurity B | Hydrochlorothiazide | N/A |
| VL283001 | Hydroquinone | Hydroquinone | N/A |
| VL77001 | EP Impurity A | Hydroxyethyl salicylate | N/A |
| VL78001 | Hyoscine butylbromide Impurity F | Hyoscine butylbromide | N/A |
| VL78002 | Hyoscine butylbromide Impurity D (Mixture of Diastereoisomer) | Hyoscine butylbromide | N/A |
| VL78003 | Hyoscine butylbromide Impurity G | Hyoscine butylbromide | N/A |
| VL78004 | Hyoscine butylbromide Impurity E HCl (N-butylhyoscine HCl) | Hyoscine butylbromide | N/A |
| VL81001 | Ibuprofen Imp B | Ibuprofen | N/A |
| VL272001 | Desmethyl Imatinib | Imatinib | N/A |
| VL83001 | Indapamide Impurity | Indapamide | N/A |
| VL83002 | Indapamide Dehydro Impurity | Indapamide | N/A |
| VL82001 | EP Impurity B | Indoramin Hydrochloride | N/A |
| VL84003 | Irbesartan related Compound A | Irbesartan | N/A |
| VL241001 | Isopropyl p-toluenesulfonate | Isopropyl p-toluenesulfonate | N/A |
| VL85001 | EP Impurity A | Itraconazole | N/A |
| VL85002 | EP Impurity B | Itraconazole | N/A |
| VL85003 | EP Impurity C | Itraconazole | N/A |
| VL85004 | EP Impurity D | Itraconazole | N/A |
| VL85005 | EP Impurity E | Itraconazole | N/A |
| VL85006 | EP Impurity F | Itraconazole | N/A |
| VL237001 | Ketorolac Impurity A | Ketorolac | N/A |
| VL89001 | Cis-Lacidipine | Lacidipine | N/A |
| VL96001 | Lacosamide Impurity | Lacosamide | N/A |
| VL87002 | Lamivudine Impurity- B | Lamivudine | N/A |
| VL97001 | Lamotrigine Related Compound D | Lamotrigine | N/A |
| VL97002 | Lamotrigine Related Compound B | Lamotrigine | N/A |
| VL92001 | EP Impurity A | Lansoprazole | N/A |
| VL92002 | EP Impurity E | Lansoprazole | N/A |
| VL92003 | EP Impurity C | Lansoprazole | N/A |
| VL92004 | EP Impurity F | Lansoprazole | N/A |
| VL92005 | Leflunomide Related Compound A | Lansoprazole | N/A |
| VL93001 | Latanoprost Acid Impurity | Latanoprost | N/A |
| VL93002 | Latanoprost Related Compound D | Latanoprost | N/A |
| VL93003 | Latanoprost Related Compound E | Latanoprost | N/A |
| VL90001 | Letrozole Related Compound B | Letrozole | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|-----------------------------------------------------------|----------------|-------------|
| VL91001 | Levetiracetam Metabolite | Levetiracetam | N/A |
| VL91002 | Levetiracetam Related compound B | Levetiracetam | N/A |
| VL91003 | EP Impurity A | Levetiracetam | N/A |
| VL91004 | EP Impurity C | Levetiracetam | N/A |
| VL91005 | Levetiracetam Impurity | Levetiracetam | N/A |
| VL94001 | EP Impurity A | Levodopa | N/A |
| VL94002 | EP Impurity B | Levodopa | N/A |
| VL86006 | Levofloxacin Related Compound C | Levofloxacin | N/A |
| VL86007 | Levofloxacin Related Compound B | Levofloxacin | N/A |
| VL86008 | Levofloxacin Related Compound A(N-Desmethyl impurity) | Levofloxacin | N/A |
| VL86009 | Levofloxacin Diamine Impurity | Levofloxacin | N/A |
| VL86002 | Levofloxacin Impurity F (Levofloxacin N-oxide/Impurity-5) | Levofloxacin | N/A |
| VL86003 | Levofloxacin Related Compound E | Levofloxacin | N/A |
| VL86004 | Levofloxacin Impurity (Levofloxacin formyl Impurity) | Levofloxacin | N/A |
| VL860010 | Desfluoro Levofloxacin | Levofloxacin | N/A |
| VL860011 | Levofloxacin Piperazine Analogue | Levofloxacin | N/A |
| VL88001 | EP Impurity C | Lidocaine | N/A |
| VL95001 | EP Impurity G | Loratadine | N/A |
| VL95002 | EP Impurity H | Loratadine | N/A |
| VL95003 | Loratadine N-Acetyl impurity | Loratadine | N/A |
| VL95004 | Bromodesloratadine impurity | Loratadine | N/A |
| VL95005 | Loratadine N-formyl impurity | Loratadine | N/A |
| VL214005 | Losartan Potassium Impurity-K | Losartan | N/A |
| VL214006 | Losartan Potassium Impurity-J | Losartan | N/A |
| VL214007 | Losartan Potassium Impurity-D | Losartan | N/A |
| VL214008 | Losartan Potassium Impurity-C | Losartan | N/A |
| VL214009 | Losartan Impurity-M/ 2H- Dimer | Losartan | N/A |
| VL2140010 | Losartan potassium impurity-L/Losartan 1H Dimer | Losartan | N/A |
| VL214003 | Losartan Potassium Related Compound A | Losartan Dimer | N/A |
| VL214004 | Losartan Potassium Related Compound B | Losartan Dimer | N/A |
| VL214001 | Losartan potassium impurity-L/Losartan Dimer 1 | Losartan Dimer | 230971-71-8 |
| VL214002 | Losartan potassium impurity-M/Losartan Dimer 2 | Losartan Dimer | N/A |
| VL180001 | Memantine Related Compound E | Memantine | N/A |
| VL180002 | Memantine Related Compound D | Memantine | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|-----------------------------------------------------------|------------------|---------|
| VL100001 | EP Impurity A | Mesalazine | N/A |
| VL100002 | EP Impurity H | Mesalazine | N/A |
| VL100003 | EP Impurity D | Mesalazine | N/A |
| VL100004 | EP Impurity B | Mesalazine | N/A |
| VL98005 | Messalamine Impurity 2 | Messalamine | N/A |
| VL98004 | Messalamine Impurity 3 | Messalamine | N/A |
| VL98002 | Messalamine Impurity I | Messalamine | N/A |
| VL105001 | EP Impurity B | Metamizole | N/A |
| VL101002 | Metformin Impurity-D | Metformin | N/A |
| VL102001 | Metformin Impurity-A | Metformin | N/A |
| VL99001 | 1-Methoxy decane | Methoxy decane | N/A |
| VL103003 | Metoprolol Impurity C | Metoprolol | N/A |
| VL206001 | Mirtazapine Impurity B | Mirtazapine | N/A |
| VL206002 | Mirtazapine Impurity C | Mirtazapine | N/A |
| VL206003 | Mirtazapine Impurity E | Mirtazapine | N/A |
| VL104001 | EP Impurity B | Molsidomine | N/A |
| VL104002 | EP Impurity E | Molsidomine | N/A |
| VL106006 | Moxifloxacin Impurity-B | Moxifloxacin | N/A |
| VL106002 | Moxifloxacin Impurity A (Moxifloxacin Related Compound A) | Moxifloxacin | N/A |
| VL106003 | Moxifloxacin Impurity C | Moxifloxacin | N/A |
| VL106004 | Moxifloxacin Impurity-D | Moxifloxacin | N/A |
| VL106005 | Moxifloxacin Impurity-E (8-Hydroxy Moxifloxacin) | Moxifloxacin | N/A |
| VL189001 | Naphthalene-1-ol (Alpha-Naphthol) | Naphthalene | N/A |
| VL212001 | Neamine | Neamine | N/A |
| VL360000 | Nepafenac Impurity-E | Nepafenac | N/A |
| VL360002 | Nepafenac Impurity-B | Nepafenac | N/A |
| VL360001 | Nepafenac Impurity-D | Nepafenac | N/A |
| VL360003 | Nepafenac Impurity-C | Nepafenac | N/A |
| VL108001 | EP Impurity A | Nifedipine | N/A |
| VL107002 | Nimesulide Impurity D | Nimesulide | N/A |
| VL288001 | Norephenylphrine | Norephenylphrine | N/A |
| VL205001 | Ofloxacin Impurity B | Ofloxacin | N/A |
| VL205002 | Ofloxacin Impurity E | Ofloxacin | N/A |
| VL205003 | Ofloxacin Impurity C | Ofloxacin | N/A |
| VL205004 | Ofloxacin Impurity F | Ofloxacin | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|----------------------------------------------|----------------------|-------------|
| VL109001 | Olanzapine Impurity A | Olanzapine | N/A |
| VL109003 | Olanzapine Impurity C | Olanzapine | N/A |
| VL109004 | Olanzapine Related Compound-03 | Olanzapine | N/A |
| VL109005 | Olanzapine Related Compound-07 | Olanzapine | N/A |
| VL109006 | Olanzapine Related Compound-08 | Olanzapine | N/A |
| VL109007 | Olanzapine Thio lactum | Olanzapine | N/A |
| VL109008 | Olanzapine lactam | Olanzapine | N/A |
| VL109009 | Olanzapine N-Oxide (Impurity D) | Olanzapine | N/A |
| VL111005 | Olanzapine Impurity B | Olanzapine | N/A |
| VL111004 | Olanzapine Demethyl Impurity | Olanzapine | N/A |
| VL184001 | Olmesartan Ethyl ester | Olmesartan | N/A |
| VL184002 | Olmesartan Trityl Alcohol | Olmesartan | N/A |
| VL184003 | Olmesartan Imp C | Olmesartan | N/A |
| VL184004 | Trityl olmesartan | Olmesartan | N/A |
| VL184005 | Olmesartan Imp A (Olmesartan acid) | Olmesartan | N/A |
| VL194001 | N-alkylated Olmesartan | Olmesartan | N/A |
| VL112006 | Omeprazole Impurity B | Omeprazole | N/A |
| VL112007 | Omeprazole Impurity I | Omeprazole | N/A |
| VL112008 | Omeprazole Impurity H | Omeprazole | N/A |
| VL112003 | Omeprazole Impurity D | Omeprazole | N/A |
| VL112002 | Omeprazole Impurity C | Omeprazole | N/A |
| VL112005 | Omeprazole Related Compound F & G | Omeprazole | N/A |
| VL112001 | EP Impurity A | Omeprazole | N/A |
| V00112002 | EP Impurity C | Omeprazole | N/A |
| VL112003 | EP Impurity D | Omeprazole | N/A |
| VL112004 | EP Impurity E | Omeprazole | N/A |
| VL110000 | Ondansetron Related Compound C | Ondansetron | N/A |
| VL215002 | Oxybutynin Impurity E (Ethylpropyl Analogue) | Oxybutynin | 121577-72-7 |
| VL217001 | Paliperidone N-Oxide Impurity | Paliperidone | N/A |
| VL217003 | Paliperidone Impurity | Paliperidone | N/A |
| VL217002 | Paliperidone keto impurity | Paliperidone | N/A |
| VL217003 | Paliperidone Acetyl impurity | Paliperidone | N/A |
| VL217001 | Paliperidone N-Oxide Impurity | Paliperidone N-Oxide | 170359-61-2 |
| VL125007 | Pantoprazole Impurity D & F Mixture | Pantoprazole | N/A |
| VL125001 | Pantoprazole Impurity A | Pantoprazole | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------|
| VL125002 | EP Impurity B | Pantoprazole | N/A |
| VL125003 | Pantoprazole Impurity C | Pantoprazole | N/A |
| VL125004 | EP Impurity N-Oxide Impurity | Pantoprazole | N/A |
| VL125005 | Sulfone N-Oxide Impurity | Pantoprazole | N/A |
| VL120001 | EP Impurity A | Paracetamol Hydrochloride | N/A |
| VL120002 | EP Impurity B | Paracetamol Hydrochloride | N/A |
| VL179001 | Phenyl 2(phenyl thio)amine.HC | Phenyl 2(phenyl thio)amine.HCl | N/A |
| V115001 | Phenylephrine Impurity-C | Phenylephrine | N/A |
| VL115002 | Phenylephrine Impurity-E | Phenylephrine | N/A |
| VL289001 | Phenylphrone | Phenylphrone | N/A |
| VL116001 | Phenytoin Related Compound A | Phenytoin | N/A |
| VL233001 | Pimozide Impurity E | Pimozide | N/A |
| VL233002 | Pimozide Impurity A | Pimozide | N/A |
| VL114001 | Pinaverium bromide Impurity -1 | Pinaverium | N/A |
| VL114002 | Pinaverium bromide Impurity -2 | Pinaverium | N/A |
| VL123001 | Pioglitazone Imino Impurity | Pioglitazone | N/A |
| VL244001 | N Ethyl Piperazine | Piperazine | N/A |
| VL117001 | EP Impurity A | Piracetam | N/A |
| VL118001 | EP Impurity D | Pirenzepine Hydrochloride | N/A |
| VL48001 | PPG ESTER-1 | PPG ESTER | N/A |
| VL48002 | PPG ESTER-2 | PPG ESTER | N/A |
| VL119003 | Pramipexole R-isomer | Pramipexole | N/A |
| VL119004 | Pramipexole Disubstituted Impurity | Pramipexole | N/A |
| VL183001 | Pramipexole Impurity-C | Pramipexole | N/A |
| VL119001 | Pramipexole Related Compound A | Pramipexole | N/A |
| VL119002 | EP Impurity B | Pramipexole | N/A |
| VL113001 | Prasugrel 3- Fluoro impurity | Prasugrel | N/A |
| VL113002 | Prasugrel Des Fluoro impurity | Prasugrel | N/A |
| VL113004 | Prasugrel CATP Impurity (5-(5-chloro-1-(2-fluorophenyl)-2-oxopentyl)-4,5,6,7-tetrahydrothieno[3,2-c]pyridin-2-yl acetate) | Prasugrel | N/A |
| VL113005 | Prasugrel Impurity 6 (1-cyclopropyl-2-(2-fluorophenyl)-2-hydroxyethanone) | Prasugrel | N/A |
| VL113006 | Prasugrel Impurity 7 (1-cyclopropyl-2-(2-fluorophenyl)ethane-1,2-dione) | Prasugrel | N/A |
| VL113007 | Prasugrel CycloPropyl Open ring Degradant Impurity (Prasugrel Impurity 10) | Prasugrel | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------|---------|
| VL113008 | Prasugrel Methyl Keto Impurity/ 5-[1-(2-fluorophenyl)-2-oxopropyl]-4,5,6,7-tetrahydrothieno[3,2-c]pyridine-2-yl acetate | Prasugrel | N/A |
| VL1130010 | Prasugrel Impurity 3 | Prasugrel | N/A |
| VL113009 | Prasugrel Impurity 5 | Prasugrel | N/A |
| VL1130011 | Prasugrel Dibromo Impurity (Prasugrel Impurity 8) | Prasugrel | N/A |
| VL1130012 | Prasugrel Process Impurity A (Prasugrel Impurity 11) | Prasugrel | N/A |
| VL263001 | Pregabalin related impurity | Pregabalin | N/A |
| VL263002 | Pregabalin Lactum | Pregabalin | N/A |
| VL263003 | Pregabalin (R)-1-phenylethylamine Impurity | Pregabalin | N/A |
| VL263004 | Pregabalin racemic Impurity | Pregabalin | N/A |
| VL263005 | (±)-3-carbamoylmethyl hexanoic acid | Pregabalin | N/A |
| VL263005 | Pregabalin4-Ene Impurity | Pregabalin | N/A |
| VL121001 | Prilocaine Related Compound A | Prilocaine Hydrochloride | N/A |
| VL278001 | 2-Amino-1-(3-chlorophenyl)-1-propanone HCl | Propanone | N/A |
| VL188001 | Propranolol Epoxide | Propranolol | N/A |
| VL122001 | EP Impurity A | Propyl Hydroxybenzoate | N/A |
| VL124001 | EP Impurity B | Pyridoxine hydrochloride | N/A |
| VL227002 | Quetiapine Impurity C/ Quetiapine Related Compound C | Quetiapine | N/A |
| VL227001 | Quetiapine Impurity B | Quetiapine | N/A |
| VL126009 | Quetiapine S-Oxide impurity | Quetiapine | N/A |
| VL126008 | Quetiapine N-Oxide impurity | Quetiapine | N/A |
| VL1260010 | Quetiapine-N-Di ethoxy ethanol | Quetiapine | N/A |
| VL126007 | Quetiapine tetraethylene glycol analogue | Quetiapine | N/A |
| VL126001 | Quetiapine Related compound- 01 | Quetiapine | N/A |
| VL126002 | Quetiapine Related compound- 02 | Quetiapine | N/A |
| VL1260011 | Bis(dienzopiperazinyl) piperazine | Quetiapine | N/A |
| VL128001 | Rabeprazole related compound C | Rabeprazole | N/A |
| VL270001 | Raloxifene Impurity D | Raloxifene | N/A |
| VL270002 | Raloxifene Impurity C | Raloxifene | N/A |
| VL129002 | Ramipril Impurity-G | Ramipril | N/A |
| VL199001 | Ramipril Impurity-O | Ramipril | N/A |
| VL129004 | Ramipril Impurity K | Ramipril | N/A |
| VL129001 | EP Impurity A | Ramipril | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|-----------------------------------------------------|-----------------|--------------|
| VL220002 | Ranitidine Related Compound B | Ranitidine | N/A |
| VL220001 | Ranitidine Related Compound C | Ranitidine | N/A |
| VL130002 | Riluzole Related Compound A | Riluzole | N/A |
| VL130003 | Riluzole Impurity | Riluzole | N/A |
| VL130001 | Riluzole Impurity | Riluzole | N/A |
| VL250001 | 9-keto risperidone | Risperidone | N/A |
| VL226002 | Rivastigmine Quaternary Salt | Rivastigmine | N/A |
| VL226001 | Rivastigmine Desmethyl Impurity | Rivastigmine | N/A |
| VL221003 | Rizatriptan-N-Oxide | Rizatriptan | N/A |
| VL221002 | Rizatriptan des methyl | Rizatriptan | N/A |
| VL221002 | Rizatriptan des methyl | Rizatriptan | N/A |
| VL221002 | Rizatriptan des methyl | Rizatriptan | N/A |
| VL221001 | Rizatriptan impurity- C | Rizatriptan | N/A |
| VL262003 | Ropinirole N-Oxide | Ropinirole | N/A |
| VL262001 | N-Hydroxy Ropinirole | Ropinirole | N/A |
| VL262002 | Ropinirole Impurity A (Monopropyl Ropinirole) | Ropinirole | N/A |
| VL262008 | Ethyl Ropinirole | Ropinirole | N/A |
| VL262004 | Ropinirole Propylidene | Ropinirole | N/A |
| VL262005 | Ropinirole Cyclopentanylindolinone impurity | Ropinirole | N/A |
| VL262006 | Methylene Ropinirole | Ropinirole | N/A |
| VL262007 | Hydroxy Ropinirole | Ropinirole | N/A |
| VL262009 | Ropinirole Open Ring Impurity Derivative | Ropinirole | N/A |
| VL127003 | Rosuvastatin EP Impurity C | Rosuvastatin | N/A |
| VL174004 | Rosuvastatin Impurity A | Rosuvastatin | N/A |
| VL174002 | Rosuvastatin 3S 5R isomer | Rosuvastatin | N/A |
| VL174003 | Rosuvastatin 5Keto Impurity | Rosuvastatin | N/A |
| VL174005 | Rosuvastatin Z-Isomer | Rosuvastatin | N/A |
| VL174006 | Rosuvastatin Tert-Butyl Ester | Rosuvastatin | N/A |
| VL174001 | Rosuvastatin 3S,5R (Rosuvastatin Impurity G) | Rosuvastatin | N/A |
| VL176001 | Rosuvastatin Anti isomer (Rosuvastatin3R,5R isomer) | Rosuvastatin | 1094100-06-7 |
| VL127001 | Rosuvastatin Diastereomer/Related Compound-1 (RC1) | Rosuvastatin | N/A |
| VL127002 | Rosuvastatin Lactone | Rosuvastatin | N/A |
| VL266001 | S-Mandelic Acid | S-Mandelic Acid | N/A |
| VL134002 | Salmeterol Impurity G | Salmeterol | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|------------------------------------------------------------|--------------------|-------------|
| VL134003 | Salmeterol Impurity -H | Salmeterol | N/A |
| VL134004 | Salmeterol Related Compound A | Salmeterol | N/A |
| VL134001 | Salmeterol Impurity F | Salmeterol | N/A |
| VL227002 | Quetiapine Impurity C/ Quetiapine Related Compound C | Select Parent Drug | N/A |
| N/A | N/A | Select Parent Drug | N/A |
| N/A | N/A | Select Parent Drug | N/A |
| VL215001 | Oxybutynin Impurity B (Diphenyl Analogue) | Select Parent Drug | N/A |
| VL196001 | Sertraline Impurity -B | Sertraline | N/A |
| VL196002 | Sertraline Impurity -F | Sertraline | N/A |
| VL196003 | Sertraline Impurity -G | Sertraline | N/A |
| VL222001 | Sertraline Related Compound-2 | Sertraline | N/A |
| VL222002 | Sertraline Related Compound-1 | Sertraline | N/A |
| VL138001 | Sevoflurane related compound C | Sevoflurane | N/A |
| VL137001 | Sildenafil impurity A | Sildenafil | N/A |
| VL137002 | Sildenafil Impurity D | Sildenafil | N/A |
| VL136002 | Sildenafil Impurity C (EP) | Sildenafil | N/A |
| VL136001 | Sildenafil Dimer Impurity | Sildenafil Citrate | N/A |
| VL133009 | Simvastatin Impurity E & F mixture | Simvastatin | N/A |
| VL133001 | Simvastatin Impurity F | Simvastatin | 79952-44-6 |
| VL133002 | Simvastatin Impurity-A/Simvastatin Hydroxy Acid Impurity A | Simvastatin | N/A |
| VL133005 | Simvastatin Impurity-B/Acetyl Simvastatin | Simvastatin | 145576-25-6 |
| VL133006 | Simvastatin Impurity-C/Anhydro Simvastatin | Simvastatin | 210980-68-0 |
| VL133004 | Simvastatin Impurity-D/Simvastatin Dimer | Simvastatin | 476305-24-5 |
| VL133008 | Simvastatin Impurity-G/Methylene Simvastatin Impurity-G | Simvastatin | 79902-62-8 |
| VL1330010 | Simvastatin Lovastatin(Impurity E) | Simvastatin | N/A |
| VL133007 | Simvastatin methyl ester | Simvastatin | N/A |
| VL201001 | Sitagliptin S-Isomer | Sitagliptin | N/A |
| VL131001 | Solifenacin Succinate Impurity A | Solifenacin | N/A |
| VL131003 | Solifenacin Succinate Impurity C/ Solifenacin Impurity C | Solifenacin | N/A |
| VL132002 | Solifenacin Succinate Impurity B (solifenacin N-oxide) | Solifenacin | N/A |
| VL131005 | RR Solifenacin Impurity | Solifenacin | N/A |
| VL131006 | RS Solifenacin Impurity | Solifenacin | N/A |
| VL131007 | SS Solifenacin Impurity | Solifenacin | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|----------------------------------------------------------------|--------------------------|-------------|
| VL135001 | Stavudine Impurity | Stavudine | N/A |
| VL139001 | Sulpiride Impurity D | Sulpiride | N/A |
| VL139002 | Sulpiride Impurity B | Sulpiride | N/A |
| VL300003 | Tadalafil impurity-(6R, 12aS)/6R, 12aS Diastereomer/Impurity A | Tadalafil impurity | 171596-27-3 |
| VL300001 | Tadalafil impurity-(6S, 12aS)/6S, 12aS Enantiomer/ Impurity B | Tadalafil impurity | 629652-72-8 |
| VL300002 | Tadalafil impurity-(6S, 12aR)/6S,12aR Diastereomer/ Impurity C | Tadalafil impurity | 171596-28-4 |
| VL269001 | Tamsulosin Impurity B | Tamsulosin | N/A |
| VL269002 | Tamsulosin Impurity E | Tamsulosin | N/A |
| VL269003 | Tamsulosin Impurity F | Tamsulosin | N/A |
| VL142003 | Telmisartan impurity B | Telmisartan | N/A |
| VL142004 | Telmisartan impurity C | Telmisartan | N/A |
| VL142001 | Telmisartan Amide | Telmisartan | N/A |
| VL142002 | Telmisartan Diacid | Telmisartan | N/A |
| VL144001 | EP Impurity I | Terfenadine | N/A |
| VL143001 | EP Impurity A | Tetracaine Hydrochloride | N/A |
| VL143002 | EP Impurity B | Tetracaine Hydrochloride | N/A |
| VL140001 | Hydroxy Morpholino Thiadiazole | Thiadiazole | N/A |
| VL145001 | EP Impurity B | Thiamazole | N/A |
| VL141001 | Tiagabine Impurity-I (Diol) | Tiagabine | N/A |
| VL141002 | Tiagabine Impurity-II (Ketone) | Tiagabine | N/A |
| VL146001 | Tibolone | Tibolone | N/A |
| VL213001 | Timolol impurity -B | Timolol | 59697-06-2 |
| VL213002 | Timolol impurity -D | Timolol | N/A |
| VL213003 | Timolol impurity -G | Timolol | N/A |
| VL236001 | Tioconazole Impurity-A | Tioconazole | N/A |
| VL236002 | Tioconazole Impurity-B | Tioconazole | N/A |
| VL236003 | Tioconazole Impurity-C | Tioconazole | N/A |
| VL285001 | Tizanidine Dimer Impurity | Tizanidine | N/A |
| VL271001 | Topotecan Bis N-Oxide | Topotecan | N/A |
| VL147001 | EP Impurity E | Tramadol | N/A |
| VL232001 | Tramadol 1,2 Olefin impurity | Tramadol | N/A |
| VL232002 | Tramadol 1,6 Olefin impurity | Tramadol | N/A |
| VL148001 | EP Impurity D | Tranexamic acid | N/A |
| VL279001 | Travoprost Related Compound A | Travoprost | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-------------|-----------------------------------------------|--------------------------------------------|---------|
| VL238001 | Triprolidine N-Oxide | Triprolidine | N/A |
| VL242001 | Trospium Chloride Impurity D | Trospium Chloride | N/A |
| VL151001 | Valproic Acid | Valproic Acid | N/A |
| VL152008 | Valsartan Related Compound A / USP Impurity A | Valsartan | N/A |
| VL152009 | Valsartan Related Compound B / USP Impurity B | Valsartan | N/A |
| VL1520010 | Valsartan Related Compound C / USP Impurity C | Valsartan | N/A |
| VL152007 | Valsartan methyl Ester | Valsartan | N/A |
| VL370001 | Vardenafil Impurity A | Vardenafil | N/A |
| VL286001 | Venlafaxine Impurity F | Venlafaxine | N/A |
| VL150001 | Verapamil Related Compound E | Verapamil | N/A |
| VL150002 | Verapamil Related Compound F | Verapamil | N/A |
| VL150003 | Verapamil Impurity M | Verapamil | N/A |
| VL254001 | (Vilazodone Imp 3) Vilazodone N-Oxide | Vilazodone | N/A |
| VL254002 | Vilazodone Impurity-VIII | Vilazodone | N/A |
| VL282001 | Zidovudine Related Compound C | Zidovudine | N/A |
| VL282002 | Zidovudine Related Compound B | Zidovudine | N/A |
| VL248001 | Ziprasidone Related Compound A | Ziprasidone | N/A |
| VL248002 | Ziprasidone Related Compound B | Ziprasidone | N/A |
| VL248003 | Ziprasidone Related Compound D | Ziprasidone | N/A |
| VL248004 | Ziprasidone Open ring Impurity | Ziprasidone | N/A |
| VL350000 | Zolmitriptan-Stage-IV | Zolmitriptan | N/A |
| VL350001 | Zolmitriptan-N-oxide | Zolmitriptan | N/A |
| VL350002 | Zolmitriptan-N-desmethyl | Zolmitriptan | N/A |
| VL350003 | Zolmitriptan Amine | Zolmitriptan | N/A |
| VL153001 | N-methyl impurity | Zonisamide | N/A |
| VL256001 | Keto Impurity | Keto Impurity | N/A |
| VL211001 | 10,11-Dioxo Impurity | 10,11-Dioxo Impurity | N/A |
| VL208001 | (R)-4-(4-aminobenzyl)-1,3oxazolidine-2-one | (R)-4-(4-aminobenzyl)-1,3oxazolidine-2-one | N/A |
| VL265001 | 1 Amino Indan | 1 Amino Indan | N/A |
| VL267001 | 1-indane-One (1-Indanone) | 1-indane-One (1-Indanone) | N/A |
| VL268001 | 1-Indanol | 1-Indanol | N/A |
| VL99001 | 1-Methoxy decane | 1-Methoxy decane | N/A |
| VL320000 | 2,4-Dichlorobenzoic acid | 2,4-Dichlorobenzoic acid | N/A |
| VL277001 | 2,6 Dimethyl Phenol Impurity | 2,6 Dimethyl Phenol Impurity | N/A |

| Catalog No. | Impurity Name | Product Name | CAS No. |
|-----------------|------------------------------------|-------------------------------------|---------|
| VL175001 | 3-Hydroxybenzoic Acid | 3-Hydroxybenzoic Acid | N/A |
| VL20001 | 4-Amino Phenol | 4-Amino Phenol | N/A |
| VL310001 | 4-hydroxybenzoic acid | 4-hydroxybenzoic acid | N/A |
| VL209001 | 5-methoxy-1H-benzimidazole-2-thiol | 5-methoxy-1H-benzimidazole-2-thiol | N/A |
| VL420001 | Carbidopa Impurity | (3,4-Dihydroxyphenylacetone) DHP | N/A |
| VL390001 | Valganciclovir Related compound E | Valganciclovir | N/A |
| VL390002 | Valganciclovir Related compound F | Valganciclovir | N/A |
| VL400001 | Fesoterodine Impurity B | Fesoterodine | N/A |
| VL260002 | Propafenone Impurity E | Propafenone | N/A |
| VL260003 | Propafenone Impurity C | Propafenone | N/A |
| VL260004 | Propafenone Impurity A | Propafenone | N/A |
| VL430002 | Drotaverine Acid Impurity | Drotaverine | N/A |