



Code	Specification	MN phases	Page
USP L01	octadecyl silane chemically bonded to porous silica particles, 1.8 to 10 µm Ø	NUCLEODUR® C ₁₈ ec	104
		NUCLEODUR® C ₁₈ Gravity	92
		NUCLEODUR® C ₁₈ Isis	96
		NUCLEODUR® C ₁₈ Pyramid	98
		NUCLEODUR® Sphinx RP	100
		NUCLEOSIL® C ₁₈	110
		NUCLEOSIL® C ₁₈ AB	113
		NUCLEOSIL® C ₁₈ HD	112
		NUCLEOSIL® C ₁₈ MPN	143
		NUCLEOSIL® C ₁₈ PAH	131
USP L03	porous silica particles, 5 to 10 µm Ø	NUCLEODUR®	107
		NUCLEOSIL®	122
USP L07	octyl silane chemically bonded to totally porous silica particles, 1.8 to 10 µm Ø	NUCLEODUR® C ₈ ec	104
		NUCLEODUR® C ₈ Gravity	92
		NUCLEOSIL® C ₈	116
		NUCLEOSIL® C ₈ HD	118
USP L08	an essentially monomolecular layer of aminopropyl silane chemically bonded to totally porous silica gel support, 3 to 10 µm Ø	NUCLEOSIL® Carbohydrate	146
		NUCLEOSIL® NH ₂	124
USP L09	irregular or spherical, totally porous silica gel having a chemically bonded, strongly acidic cation-exchange coating, 3 to 10 µm Ø	NUCLEOSIL® SA	126
USP L10	nitrile groups chemically bonded to porous silica particles, 3 to 10 µm Ø	NUCLEODUR® CN / CN-RP	102
		NUCLEOSIL® CN / CN-RP	121
USP L11	phenyl groups chemically bonded to porous silica particles, 3 to 10 µm Ø	NUCLEODUR® Sphinx RP	100
		NUCLEOSIL® C ₆ H ₅	120
USP L14	silica gel having a chemically bonded, strongly basic quaternary ammonium anion-exchange coating, 5 to 10 µm Ø	NUCLEOSIL® SB	127
USP L16	dimethylsilane chemically bonded to porous silica particles, 5 to 10 µm Ø	NUCLEOSIL® C ₂	119
USP L17	strong cation-exchange resin consisting of sulphonated cross-linked PS/DVB copolymer in the H form, 7 to 11 µm Ø	NUCLEOGEL® ION 300 OA	148
		NUCLEOGEL® SUGAR 810 H	147
USP L19	strong cation-exchange resin consisting of sulphonated cross-linked PS/DVB copolymer in the Ca form, about 9 µm Ø	NUCLEOGEL® SUGAR 810 Ca	147
		NUCLEOGEL® SUGAR Ca	148
USP L20	dihydroxypropane groups chemically bonded to porous silica particles, 5 to 10 µm Ø	NUCLEOSIL® OH (Diol)	123
USP L21	a rigid, spherical styrene-divinylbenzene copolymer, 5 to 10 µm Ø	NUCLEOGEL® RP	145
USP L26	butyl silane chemically bonded to totally porous silica particles, 5 to 10 µm Ø	NUCLEOSIL® C ₄	119
		NUCLEOSIL® C ₄ MPN	143
USP L32	a chiral ligand-exchange resin packing · L-proline copper complex covalently bonded to irregularly shaped silica particles, 5 to 10 µm Ø	NUCLEOSIL® CHIRAL-1	136
USP L34	strong cation-exchange resin consisting of sulphonated cross-linked PS/DVB copolymer in the Pb form, about 9 µm Ø	NUCLEOGEL® SUGAR Pb	148
USP L36	a 3,5-dinitrobenzoyl derivative of L-phenylglycine covalently bonded to 5 µm aminopropyl silica	NUCLEOSIL® CHIRAL-3	137
USP L40	cellulose tris-3,5-dimethylphenylcarbamate coated porous silica particles, 5 to 20 µm Ø	NUCLEOCEL DELTA	135
USP L45	beta-cyclodextrin bonded to porous silica particles, 5 to 10 µm Ø	NUCLEODEX β-OH, NUCLEODEX β-PM	133
USP L51	amylose tris-3,5-dimethylphenylcarbamate-coated, porous, spherical silica particles, 5 to 10 µm Ø	NUCLEOCEL ALPHA	134
USP L58	strong cation-exchange resin consisting of sulphonated cross-linked PS/DVB copolymer in the Na form, about 7 to 11 µm Ø	NUCLEOGEL® SUGAR Na	148
USP L60	spherical porous silica gel, 3 or 5 µm Ø, the surface of which has been covalently modified with alkyl amide groups and endcapped	NUCLEOSIL® C ₁₈ Nautilus	113



USP specification of MN GC phases

Code	Specification	MN phases	Page
G1 / G2	dimethylpolysiloxane oil	OPTIMA® 1	205
		OPTIMA® 1 MS	206
		OPTIMA® 1 MS Accent	207
		PERMABOND® SE-30	221
		PERMABOND® P-100	226
		OPTIMA® 1-TG	228
G3	50 % phenyl – 50 % methylpolysiloxane	OPTIMA® 17	212
		OPTIMA® 17-TG	228
G6	trifluoropropylmethylpolysiloxane	OPTIMA® 210	216
G7	50 % 3-cyanopropyl – 50 % phenylmethylpolysiloxane	OPTIMA® 225	217
G16	polyethylene glycol (av. mol. wt. ~ 15000); a high molecular weight compound of polyethylene glycol and a diepoxide	OPTIMA® Wax	219
		PERMABOND® CW 20 M	222
		PERMABOND® CW 20 M-DEG	229
		FS-CW 20 M-AM	226
G19	25 % phenyl – 25 % cyanopropyl – 50 % methylsilicone	OPTIMA® 225	217
G35	a high molecular compound of a polyethylene glycol and a diepoxide that is esterified with nitroterephthalic acid	OPTIMA® FFAP	220
		PERMABOND® FFAP	222
G27	5 % phenyl – 95 % methylpolysiloxane	OPTIMA® 5	208
		OPTIMA® 5 MS	209
		OPTIMA® 5 MS Accent	210
		OPTIMA® 5 Amine	225
		PERMABOND® SE-52	221
G35	a high molecular compound of a polyethylene glycol and a diepoxide that is esterified with nitroterephthalic acid	OPTIMA® FFAP	220
		PERMABOND® FFAP	222
G36	1 % vinyl – 5 % phenylmethylpolysiloxane	OPTIMA® 5	208
		OPTIMA® 5 MS	209
		OPTIMA® 5 MS Accent	210
		OPTIMA® 5 Amine	225
		PERMABOND® SE-54 HKW	227
G38	dimethylpolysiloxane oil	OPTIMA® 1	205
		OPTIMA® 1 MS	206
		OPTIMA® 1 MS Accent	207
		PERMABOND® SE-30	221
		PERMABOND® P-100	226
		OPTIMA® 1-TG	228
G43	6 % cyanopropylphenyl – 94 % dimethylpolysiloxane (percentages refer to molar substitution)	OPTIMA® 1301	214
		OPTIMA® 624	215
		OPTIMA® 624 LB	215
G46	14 % cyanopropylphenyl – 86 % methylpolysiloxane	OPTIMA® 1701	213
G49	proprietary derivatized phenyl groups on a polysiloxane backbone	OPTIMA® 8-3	203



A		
Accent ultra-low bleed columns for GC	207, 210	
Accessories		
for GC		
connectors for capillary columns	249	
ferrules	248	
fused silica adaptors	250	
glass injection liners	252	
point-of-use gas purification	253	
septa	252	
tools	254	
for HPLC		
CC cartridge column accessories	155	
EC standard column accessories	154	
PEEK fittings and capillary tubing	158	
stainless steel capillary tubing and accessories	157	
VP VarioPrep column accessories	153	
for liquid-liquid extraction	55	
for SPE		
empty columns, frits, adaptors	42	
high-throughput accessories	45	
vacuum manifolds and spare parts	40	
for TLC	194	
Accosorb see HC-free		
Acetylated cellulose, layers for TLC	187	
Acrylamide, clean-up from food, SPE columns	38	
Activated carbon cartridges for gas purification	253	
Activity test mixture according to Donike	244, 245	
Acylation		
method development kit	237	
reagents and procedures	238	
ADAMANT glass plates		
for HPTLC	178	
for TLC	175	
Adaptors		
for HPLC guard columns	154	
for SPE columns	42	
fused silica for capillary GC	250	
Adsorbents		
for column chromatography	164	
for HPLC	159	
for SPE see individual phases		
for TLC	195	
Adsorbent resins (PS/DVB) for SPE	10-14	
Aflatoxin separation, layers for TLC	189	
Alkylation see Methylation		
ALUGRAM® aluminium sheets for TLC	173	
Aluminium crimp caps for vials	65, 67, 69, 72	
Aluminium oxide		
adsorbents for column liquid chromatography	166	
adsorbents for TLC	195	
layers for TLC	185	
SPE phase CHROMABOND® Alox	25	
Aluminium oxide / acetylated cellulose		
mixed layers for TLC	190	
Aluminium sheets ALUGRAM® for TLC	173	
AMD procedure	171	
layers for HPTLC	179	
Amine analysis		
capillary columns for GC	225, 226	
GC chromatograms	225, 245	
test mixture for GC	244	
ε-Aminopolycaprolactam see Polyamide		
Amino acids		
GC enantiomer separations	231, 234	
HPLC enantiomer separations	136, 138	
TLC enantiomer separation	188	
Amino-modified silica		
layers for HPTLC	183	
NUCLEOSIL® columns for HPLC	124	
NUCLEOSIL® packings for HPLC	161	
POLYGOPREP packings for preparative HPLC	165	
POLYGOSIL® packings for HPLC	163	
SPE phase CHROMABOND® NH ₂	22	
Amylose-based phase for HPLC enantiomer separation	134	
Analytical columns for HPLC		
NUCLEODUR® high purity silica phases	92	
NUCLEOSIL® standard silica phases	110	
other manufacturers		
Kromasil®	129	
LiChrospher®	128	
Superspher®	128	
special separations	130	
Anion analysis by HPLC	132	
Anion exchangers		
cellulose-based		
layers for TLC	187	
polymer-based		
HPLC columns NUCLEOGEL® Anion I	132	
HPLC columns NUCLEOGEL® SAX	142	
SPE phase CHROMABOND® PS-OH ⁻	30	
resin-based IONEX layers for TLC	190	
silica-based		
HPLC columns NUCLEOGEN® DEAE	140	
HPLC columns NUCLEOSIL® Anion II	132	
HPLC columns NUCLEOSIL® PEI	139	
HPLC columns NUCLEOSIL® SB	127	
HPLC packing NUCLEOSIL® SB	162	
SPE phase CHROMABOND® SB	29	
Application database see www.mn-net.com		
Application guides		
reversed phase HPLC	87	
SPE	5	
Aqueous eluents in reversed phase HPLC		
NUCLEODUR® Pyramid	98	
NUCLEOSIL® Nautilus	110	
Aromatic hydrocarbons see BTX, PAH and PCB		
ASTM D 1319-58T FIA procedure	166	
Autosampler vials	80	
Autoselectivity, OPTIMA® δ columns	202	
AVICEL® cellulose layers for TLC	186	
B		
Base deactivated silica RP phases	92	
Basic principles		
GC	198	
SPE	2	
TLC	170	
BIG-BOXES, CHROMAFIL® syringe filters	56	
BIGpacks, CHROMABOND® SPE columns	11-38	
Bioanalysis		
HPLC columns	130	
nucleic acid and protein purification:		
also ask for our catalogue "Bioanalysis"		
Biotage® Flash systems, CHROMABOND® Flash cartridges	50	
Bottles see Vials		



Bovine serum albumin			
HPLC phase for enantiomer separation	138		
Brush type HPLC phases for enantiomer separation	137		
BSA (N,O-bis-trimethylsilyl-acetamide)	240		
BSA also see Bovine serum albumin			
BSTFA (N,O-bis-trimethylsilyl-trifluoroacetamide)	240		
BTX			
GC chromatograms	216, 227, 247		
test mixture for GC	246		
Built-in guard columns for HPLC, adaptor	154, 155		
Butyl rubber sealing disks for vial caps	65, 79		
C			
CA see Cellulose acetate			
Cages for fused silica capillaries	254		
Capillary accessories			
for GC	248		
for HPLC	157		
Capillary columns for GC			
OPTIMA® high performance columns			
summary	201		
autoselectivity	202		
low bleed	206, 209, 215		
thick films	205, 208		
ultra-low bleed	207, 210, 211		
PERMABOND® columns	221		
special separations			
summary	223		
amines	225, 226		
diethylene glycol analysis	229		
enantiomer analysis	230-234		
environmental analysis	227		
petrochemical analysis	226		
silane analysis	229		
triglyceride analysis	228		
Capillary connectors for GC	249		
Capillary electrophoresis			
untreated fused silica capillaries	235		
Capillary fittings for GC	250		
Capillary tubing cutters			
diamond file for GC capillaries	254		
for PEEK HPLC capillaries	158		
for stainless steel HPLC capillaries	157		
Capillary tubing for HPLC			
PEEK	158		
stainless steel	157		
Capillary unions for GC	249-251		
Capillary union for HPLC	157		
Caps for vials			
crimp caps	65, 67, 69, 72, 73		
screw caps	77-79		
snap ring caps	68		
with slotted sealing disks	67, 68, 77, 78		
Carbohydrate analyses, HPLC columns	146-148		
Carlo Erba see Fisons			
Cartridges CHROMAFIX® for SPE	6		
Cartridge system ChromCart® for HPLC	155		
Cation exchangers			
polymer-based			
HPLC columns NUCLEOGEL® SAX	142		
SPE phases			
CHROMABOND® PS-H ⁺ , PS-Ag ⁺ , PS-Ba ²⁺	30		
resin-based IONEX layers for TLC	190		
Cation exchangers (cont.)			
silica-based			
HPLC columns NUCLEOSIL® SA	126		
HPLC packing NUCLEOSIL® SA	161		
SPE phases CHROMABOND® PCA, PSA, SA	27, 28		
Celite kieselguhr	167		
Cellulose			
adsorbents for column liquid chromatography	167		
adsorbents for TLC	196		
layers for TLC	186, 187		
Cellulose acetate syringe filters CHROMAFIL®	59		
Cellulose, acetylated, layers for TLC	187		
Cellulose / aluminium oxide, mixed layers for TLC	190		
Cellulose AVICEL®, layers for TLC	186		
Cellulose-based phase for HPLC enantiomer separation	135		
Cellulose ion exchangers			
layers for TLC	187		
Cellulose mixed esters			
filter plates CHROMABOND® MULTI 96	63		
syringe filters CHROMAFIL®	59		
Cellulose / silica mixed layers for TLC	190		
Chamber saturation in TLC	171		
Chemically bonded phases for GC see OPTIMA® and PERMABOND®			
Chemical compatibility of CHROMAFIL® filters	62		
Chiral phases for enantiomer separation			
GC capillary columns	230-234		
HPLC columns	133-138		
CHIRALPLATE for TLC enantiomer separation	188		
L-CHIRASIL-VAL for GC enantiomer separation	234		
CHROMABOND® phases for SPE	10-39		
summary	8		
Flash Safety System	47		
vacuum manifolds and accessories	40, 42		
CHROMAFIL® syringe filters (membrane filters)	56, 62		
sterile filters	59, 60		
CHROMAFIX® cartridges for SPE	6		
Chromatography papers	191		
ChromCart® cartridge system for HPLC	155		
Closures for vials see Caps for vials			
Column accessories for HPLC	153-155		
Columns for GC see Capillary columns for GC			
Columns for HPLC			
for preparative separations	150		
Columns for SPE, CHROMABOND®	10-39		
Column systems for HPLC	153, 154		
Columns for HPLC			
for analytical separations see Analytical columns			
Companion® Flash systems			
CHROMABOND® Flash cartridges	51		
Compatibility of CHROMAFIL® syringe filters	62		
Concentrating zone			
layers for TLC	177		
sample application in TLC	170		
Conic vials see Vials			
Connectors for GC capillaries			
glass connectors, PTFE shrinking tube	249		
Graphseal connecting system	249		
Valco fused silica adaptors	250, 251		
Connectors for SPE vacuum manifolds	41		
Containers for vials	84		
Crimpers for closing and opening crimp caps	74		



Crimp caps for vials	
aluminium, with or without sealing disks	65, 67, 69, 72
steel (magnetic), with sealing disks	73
Crimp top vials	65–71
Crosses (Valco) for fused silica adaptors for GC	251
Crosslinks, enrichment, CHROMABOND® phase for SPE	32
Cyano-modified silica	
layers for HPTLC	182
NUCLEODUR® columns for HPLC	102
NUCLEOSIL® columns for HPLC	120
NUCLEOSIL® packings for HPLC	161
POLYGOPREP packings for preparative HPLC	165
POLYGOSIL® packings for HPLC	163
SPE phase CHROMABOND® CN	21
Cyclodextrins as chiral stationary phases	
HYDRODEX for GC	232
LIPODEX® for GC	230
NUCLEODEX for HPLC	133
D	
Deactivated capillaries for GC	235
DEAE anion exchangers	
cellulose-based	
layers for TLC	187
silica-based HPLC columns NUCLEOGEN® DEAE	140
Derivatisation	
method development kits	237
reagents and procedures for GC	238–243
selection guide for important functional groups	237
Detection of substances in TLC	172
Detection reagents for TLC	194
Developing a thin layer chromatogram	171
Developing chambers in TLC	171, 194
Diamino-modified silica phase for QuEChERS method	39
Diamond file for GC	254
Diethylaminoethyl see DEAE	
Diethylene glycol analysis, capillary column for GC	229
Dimethyldichlorosilane (DMCS)	242
N,N-dimethylformamide dimethylacetal (DMF-DMA)	239
Dimethyl-modified silica	
layers for TLC	181
NUCLEOSIL® columns for HPLC	119
NUCLEOSIL® packings for HPLC	161
SPE phase CHROMABOND® C2	19
DIN 38407 part 5 halogenated hydrocarbons	246
DIN 38407 part 7 PAH in drinking water	190
DIN 38409 – H22 AOX from waters	34
DIN 51527 PCB from oil	37
DIN 51791 FIA procedure	166
DIN H-53 hydrocarbons from water	36
Diol-modified silica	
layers for TLC	184
NUCLEOSIL® columns for HPLC	123
NUCLEOSIL® packings for HPLC	161
SPE phase CHROMABOND® OH	23
Disaccharide separation, HPLC columns	146–148
Dispersive SPE, QuEChERS method	39
Disposable cartridges CHROMABOND® for SPE	6
Disposable columns CHROMABOND® for SPE	6
Disposable filters CHROMAFIL®	56
DMCS (dimethylchlorosilane)	242
DMF-DMA (N,N-dimethylformamide dimethylacetal)	239
Doping control, vials and accessories	84

Drug analysis	
HPLC enantiomer separation	134
HPLC of basic drugs	92
SPE of acidic, neutral and basic drugs from urine or plasma	31
SPE of tetracyclines from biological samples	33
SPE of THC and acidic analytes from biological fluids	32
Drying of gases, H ₂ O-free cartridges	253
Drying of organic samples, CHROMAFIX® cartridges	31
DURASIL glass plates for TLC and HPTLC	176, 179
Dye analysis, TLC chromatograms	178, 185

E

Easy, polar adsorbent resin for SPE	12
EC standard column system for HPLC	154
Electrophoresis, untreated fused silica capillaries	235
Eluent filters, stainless steel	157
Empty cages for GC capillaries	254
Empty CHROMABOND® columns for SPE	42
Enantiomer separation	
GC capillary columns	230–234
HPLC columns	133–138
TLC plates	188
Environmental analysis	
GC capillary columns	227
HPLC columns	131, 132
SPE method development	7
SPE polymer RP phases	10–14
SPE special phases for AOX and hydrocarbons	34, 36
SPE special phases for PAH	34, 35
SPE special phases for PCB	36–38
test mixtures for GC	246
EPA 610, PAH standard	131
EPA 8140/8141 organophosphorus pesticides	
GC chromatograms	204, 207
Evaluation of a thin layer chromatogram	171
Exclusion chromatography	114
also see GPC	

F

FAME, GC chromatograms	217, 218, 220
FAME test mixture for GC	244
Fast GC	224
Fast HPLC	90
Fatty acid methyl esters see FAME	
Ferrules	
for HPLC columns	154, 156
graphite, Vespel, Teflon for GC	248
PEEK	158
FIA procedure, silica	166
Fibrous cellulose see Cellulose	
File (diamond) for GC	254
Film thickness of GC capillary columns	199
Filter–Cel kieselguhr	167
Filters	
CHROMAFIL® syringe filters	56
stainless steel, for HPLC eluents	157
also ask for our catalogue "Filtration"	
Filter plates CHROMABOND® MULTI 96	63
Fisons GC instruments, accessories	
ferrules	248
glass injection liners	252



- Fittings
 PEEK for HPLC 158
 stainless steel for HPLC 153-155
 Valco for capillary GC 250
 FlashMaster™ systems, CHROMABOND® Flash cartridges 50
 Flash chromatography
 adsorbents 46
 CHROMABOND® Flash Safety System 47
 glass columns and accessories 52
 solutions for specific instruments 50
 Florisil® magnesium silicate
 for column chromatography 167
 for SPE 26, 36
 Flowmeters for GC 254
 Fluorescence indicator adsorption procedure, silica 166
 Fluorescent indicators for TLC 196
 Food analysis, HPLC columns 146-148
 Freeze-drying, rubber stoppers 73
 Fused silica adaptors for capillary GC 250
 Fused silica capillaries see Capillary columns
- G**
- Gas flowmeters for GC 254
 Gas purification absorber cartridges 253
 GC accessories see Accessories for GC
 GC columns see Capillary columns for GC
 GC/MS and low bleed columns 206, 207, 209-211, 215
 Gel permeation chromatography, columns 149
 Glass bottles see Vials
 Glass columns CHROMABOND® for SPE 6
 Glass connectors for fused silica capillaries 249
 Glass fibre syringe filters CHROMAFIL® 61
 Glass fibre wadding silanised, very fine fibres 254
 Glass injection liners for GC 252
 Glass plates for TLC 173
 Glass wool, long fibres, DMCS treated 254
 GPC columns 149
 Graphite and graphite/Vespel ferrules 248
 Gravity, high density NUCLEODUR® RP phases 92
 Grob test mixture
 chromatograms 219, 245
 Guard columns (fused silica) for GC 235
 Guard columns for HPLC
 adaptors, holders 154, 155
 cartridges are listed with the respective columns
 Guillotine cutter for PEEK and PTFE capillaries 158
- H**
- H₂O-free cartridges for drying gases 253
 Halogenated hydrocarbons
 GC capillary column 227
 GC chromatograms 227, 247
 test mixtures for GC 246
 HC-free activated carbon cartridges for gas purification 253
 Heptafluorobutyric acid anhydride (HFBA) 238
 Herbicide analysis see Pesticide analysis
 Hexamethyldisilazane (HMDS) 242
 HFBA (heptafluorobutyric acid anhydride) 238
 High-throughput screening
 with CHROMABOND® Flash 46-51
 High density RP phases for HPLC 92, 110, 116
 High performance capillary columns for GC
 see OPTIMA® capillary columns
 High performance plates for TLC see HPTLC
 High purity silica for HPLC see NUCLEODUR®
 High temperature septa for GC 252
 High-throughput SPE 43
 HMDS (hexamethyldisilazane) 242
 Holders for gas purification cartridges 253
 HPLC columns see Analytical columns
 and Preparative HPLC, columns
 HPLC column systems 153-156
 HPTLC plates 177-184, 188, 190
 HR-P adsorbent resin for SPE 14
 HR-X, spherical hydrophobic adsorbent resin for SPE 10
 Hydrocarbon analysis
 FIA procedure, silica 166
 SPE phase CHROMABOND® Na₂SO₄/Florisil® 36
 also see BTX, Halogenated hydrocarbons and PAH
 HYDRODEX columns for GC enantiomer separation 232
 Hydrophilic RP phases for HPLC
 NUCLEODUR® Pyramid 98
 NUCLEOSIL® Nautilus 113
 Hydrosorb see H₂O-free
 Hyflo Super-Cel kieselguhr 167
- I**
- Immobilised phases for GC see OPTIMA® and PERMABOND®
 Impregnated cellulose PEI anion exchange layers for TLC 187
 Impregnated silica layers for TLC
 CHIRALPLATE for enantiomer separation 188
 Nano-SIL PAH for PAH analysis 190
 SIL G-25 Tenside for separation of surfactants 189
 In-line gas purification cartridges 253
 Indicators (fluorescent) for TLC 196
 Induced dipole
 OPTIMA® δ columns with autoselectivity 202
 Injection liners (glass) for GC 252
 Inner diameter or capillary columns in GC 199
 Inorganic anions, HPLC columns 132
 Insecticide analysis see Pesticide analysis
 Inserts see Glass injection liners and Micro inserts for vials
 Introduction to GC 198
 Introductory kits for TLC 192
 IONEX resin-based ion exchange layers for TLC 190
 Ion exchangers see Anion exchangers and Cation exchangers
 Ion exchange chromatography
 biological macromolecules 139-142
 sample preparation by SPE 30
 ISCO® Flash systems, CHROMABOND® Flash cartridges 51
 Isis, NUCLEODUR® RP phase with high steric selectivity 96
 ISO DIS 9377-4 hydrocarbons from water 36
- K**
- Kieselguhr
 adsorbents for column chromatography 166
 layers for TLC 189
 phase for liquid-liquid extraction 54
 Kieselguhr / silica mixed layers for TLC 190
 Knife file for cutting stainless steel capillary tubing 157
 Kromasil® ChromCart® cartridges 129



L

LC accessories	
for stainless steel columns	153-155, 157
from PEEK	158
L-CHIRASIL-VAL for GC enantiomer separation	234
Leak check for GC	254
Length of GC capillary columns	199
Lens with scale, 7fold magnification	254
LiChrospher® ChromCart® cartridges	128
Ligand exchange for enantiomer separation	
CHIRALPLATE for TLC	188
HPLC columns NUCLEOSIL® CHIRAL-1	136
Liners (glass) for GC injection	252
Lipodex® columns for GC enantiomer separation	230
Liquid-liquid extraction, CHROMABOND® XTR	54
Low bleed capillary columns for GC	206, 209, 215
also see Ultra-low bleed columns	
Low pressure column chromatography, adsorbents	166

M

Magnesium silicate see Florisil®	
Magnetic crimp caps for vials	67, 72, 73
Magnifying lens with scale, 7fold	254
Manual crimpers for crimp caps	74
MBDSTFA (N-methyl-N-tert-butyltrimethylsilyl-trifluoroacetamide)	241
MBHFBA (N-methyl-bis(heptafluorobutyramide))	238
MBTFA (N-methyl-bis(trifluoroacetamide))	238
Membrane filters CHROMAFIL®	62
Method development kits	
for derivatisation in GC	237
for HPLC enantiomer separation	
on NUCLEODEX columns	133
for HPTLC	184
for SPE	7
Methods for derivatisation in GC	
acylation	238
methylation	239
silylation	240-243
Methylation	
method development kit	237
reagents and procedures	239
N-methyl-bis(heptafluorobutyramide) (MBHFBA)	238
N-methyl-bis(trifluoroacetamide) (MBTFA)	238
N-methyl-N-tert-butyltrimethylsilyl-trifluoroacetamide (MBDSTFA)	241
N-methyl-N-trimethylsilyl-heptafluorobutyramide (MSHFBA)	241
N-methyl-N-trimethylsilyl-trifluoroacetamide (MSTFA)	241
Micro-sets (introductory kits) for TLC	192
Microbore columns for HPLC	156
Microcrystalline cellulose AVICEL®, layers for TLC	186
Micro inserts for vials	66, 68, 76-78
Micro reaction vials	78, 79
Mixed layers on glass plates for TLC	190
Monosaccharide separation, HPLC columns	146-148
MSHFBA	
(N-methyl-N-trimethylsilyl-heptafluorobutyramide)	241
MSTFA (N-methyl-N-trimethylsilyl-trifluoroacetamide)	241
MULTI 96, SPE plates in 96-well format	6
MV see Cellulose mixed esters	

N

Nano-ADAMANT glass plates for HPTLC	178
Nano silica layers for HPTLC	177-184, 188, 190
Nautilus, hydrophilic NUCLEOSIL® RP phase	113
Needles for SPE vacuum manifolds	41
Nucleic acid analysis	
HPLC columns	140
also ask for our catalogue "Bioanalysis"	
NUCLEOCEL for HPLC enantiomer separation	134, 135
NUCLEODEX for HPLC enantiomer separation	133
NUCLEODUR® high purity silica for HPLC	86
analytical columns, phase summary	88
preparative columns	150
preparative packings (bulk)	159
NUCLEOGEL® columns	
for anion analysis by HPLC	132
for GPC	149
for ion exchange HPLC of biological macromolecules	142
for RP separation of biological macromolecules	145
for sugar analysis by HPLC	147
NUCLEOGEN® DEAE for separation of nucleic acids	140
NUCLEOSIL® standard silica for HPLC	87
analytical columns, phase summary	108
packings (bulk)	160
preparative columns	152
Nylon 6 see Polyamide	

O

O ₂ -free gas purification cartridges	253
Oligosaccharide separation, HPLC columns	147, 148
Opening pliers for crimp top vials	74
Optical purity see Enantiomer separation	
OPTIMA® columns for GC	
summary	201
fast GC	224
low-bleed phases	206, 209, 215
special separations	
amines	225
triglycerides	228
thick films	205, 208
ultra-low bleed phases	207, 210, 211
Organochlorine pesticides, GC chromatogram	247
Organophosphorus pesticides, GC chromatogram	204
Oxygen absorber O ₂ -free (formerly Oxisorb®)	253

P

PA see Polyamide	
Packings for HPLC	
NUCLEODUR® spherical silica for preparative HPLC	159
NUCLEOSIL® spherical silica	160-162
POLYGOPREP irregular silica	164, 165
POLYGOSIL® irregular silica	162, 163
Packings for low pressure column chromatography	166, 167
PAH analysis	
GC test mixtures	246
HPLC columns	131
HPLC standard according to EPA	131
SPE phases	34, 35
TLC plates	190
Particle size in HPLC	90



PCB analysis			
GC chromatograms	214		
GC low bleed columns	207, 210, 211		
SPE phases	36–38		
PE see Polyethylene			
PEEK fittings and capillary tubing for HPLC	158		
PEI anion exchangers			
HPLC columns NUCLEOGEL® SAX, polymer-based	142		
HPLC columns NUCLEOSIL® PEI, silica-based	139		
TLC layers, impregnated cellulose	187		
Pentafluorobenzoyl chloride (PFBC)	238		
Peptide analysis, HPLC columns	139, 142–144		
PERMABOND® capillary columns for GC	221, 222		
diethylene glycol analysis	229		
enantiomer separation (L-CHIRASIL-VAL)	234		
petrochemical analyses	226		
silane analysis	229		
volatile halogenated hydrocarbons	227		
Pesticide analysis			
GC chromatograms	204, 212, 214, 247		
GC low bleed columns	207, 210, 211		
GC test mixture	246		
SPE phases	10–14		
TLC chromatogram	184		
PES syringe filters CHROMAFIL®	60		
PET see Polyester			
Petrochemical analyses, GC capillary column	226		
PFBC (pentafluorobenzoyl chloride)	238		
Phase separation, CHROMABOND® PTS, PTL	53		
Phenol analysis			
GC chromatogram	203		
SPE phases	10–14		
Plasmid analysis			
HPLC columns	141		
also ask for our catalogue “Bioanalysis”			
Plastic stoppers for vials without crimp top	75		
PMD technique in TLC	171		
Pneumatic crimpers for crimp top vials	74		
Point-of-use gas purification cartridges	253		
Polarity mixture for GC capillary columns	244		
Polyamide			
adsorbents for column chromatography	167		
adsorbents for TLC	196		
layers for TLC	188		
SPE phase CHROMABOND® PA	26		
syringe filters CHROMAFIL®	60		
Polychlorinated biphenyls see PCB			
Polycyclic aromatic hydrocarbons see PAH			
Polyester sheets POLYGRAM® for TLC	173		
Polyester syringe filters CHROMAFIL®	57		
Polyether ether ketone see PEEK			
Polyethersulfone syringe filters CHROMAFIL®	60		
Polyethylene			
caps for vials	67, 73, 75		
filter plates CHROMABOND® MULTI 96	63		
Polyethyleneimine see PEI			
POLYGOPREP irregular silica for preparative HPLC	164		
POLYGOSIL® irregular silica for HPLC	162		
POLYGRAM® polyester sheets for TLC	173		
Polymerically modified silica RP phases			
for HPLC	96, 110, 113, 144		
Polymer phases for HPLC see NUCLEOGEL® columns			
Polymer phases for SPE	10–14, 30		
Polypropylene columns and cartridges for SPE	6		
Polytetrafluoroethylene see PTFE			
Polyvinylidene difluoride syringe filters CHROMAFIL®	61		
Post-chromatographic detection methods in TLC	172		
visualisation reagents	194		
Precolumns (fused silica) for GC	235		
Preparative HPLC			
bulk packings NUCLEODUR®	159		
bulk packings POLYGOPREP	164		
columns for special separations			
ion exchange chromatography			
of nucleic acids	141		
of proteins and peptides	139		
RP chromatography of biological macromolecules	144		
columns VarioPrep			
with NUCLEODUR® and NUCLEOSIL®	150–152		
column hardware	153		
Principles of GC	198		
Principles of SPE	2		
Principles of TLC	170		
Programmed Multiple Development in TLC	171		
Protect, hydrophilic NUCLEOSIL® RP phase for HPLC	115		
Protein analysis by HPLC	139, 142–144		
Protein phase RESOLVOSIL			
for HPLC enantiomer separation	138		
PSA			
CHROMABOND® Diamino phase for SPE (QuEChERS)	39		
propylsulphonic acid cation exchanger for SPE	27		
PTFE			
coated septa for GC	252		
filter plates CHROMABOND® MULTI 96	63		
sealing disks for vial caps	65, 67, 69, 73, 77–79		
shrinking tube for GC capillaries	249		
syringe filters CHROMAFIL®	58		
Purification of gases, cartridges for removal			
of oxygen, water and hydrocarbons	253		
PVDF syringe filters CHROMAFIL®	61		
Pyramid, hydrophilic NUCLEODUR® RP phase for HPLC	98		
Q			
Quality management	5, 107		
Quartz wool, very fine fibres	254		
QuEChERS method, SPE phase CHROMABOND®			
Diamino and QuEChERS mixes	39		
R			
RC see Regenerated cellulose			
Reaction vials	78, 79		
Ready-to-use layers for TLC	174		
Reagents for			
derivatisation in GC	237–243		
post-chromatographic detection in TLC	194		
TLC micro-sets	192, 193		
Regenerated cellulose			
filter plates CHROMABOND® MULTI 96	63		
syringe filters CHROMAFIL®	58		
Removal of glass wool from tubes, tool	254		
Replacement parts			
for stainless steel HPLC columns	153–155		
for TLC micro-sets	192–194		
Resolution in HPLC	90		
RESOLVOSIL for HPLC enantiomer separation	138		
Retention factor in TLC, definition	171		
Retention gaps (fused silica) for GC	236		



Retention in GC, basic terms and definitions	198	Silicone rubber sealing disks for vial caps	65, 67, 73, 77
Reversed phase chromatography		Silicone septa for GC	252
analytical HPLC columns with NUCLEODUR® phases	88	Silylation	
analytical HPLC columns with NUCLEOSIL® phases	108	method development kit	237
HPLC columns for special separations	130	reagents and procedures	240-243
layers for TLC and HPTLC	180-184	Size exclusion chromatography	114
preparative columns with NUCLEODUR® phases	150, 151	Slotted sealing disks	65, 77
preparative columns with NUCLEOSIL® phases	152	assembled in crimp caps	67
SPE phases CHROMABOND®	8	assembled in screw caps	77, 78
test mixture for HPLC columns	107	assembled in snap ring caps	68
RP see Reversed phase		Small absorbers for in-line gas purification	253
Rubber sealing disks for vial caps	65, 67, 69, 73, 77-79	Snap-on caps for vials, polyethylene	75
Rubber stoppers for vials	69, 73	Snap ring vials and caps	68
S		Soap film flowmeters for GC	254
Sample clarification, syringe filters CHROMAFIL®	56	Solid phase extraction	
Sample injection in GC	198	high-throughput devices	43
Sample preparation		phase summary	8
derivatisation reagents and procedures	237	principles	2
solid phase extraction (SPE)	8	vacuum manifolds and accessories	40
syringe filters CHROMAFIL®	56	Solvents, GC chromatograms	206, 215
Sample vials	64-84	SPE see Solid phase extraction	
Saturation of the vapour atmosphere in a TLC developing chamber	171	Spherical polymer phase for SPE	10
SAX anion exchangers		Sphinx, bifunctional NUCLEODUR® RP phase	100
CHROMABOND® SB phase for SPE	29	Spray reagents for TLC	194
NUCLEOGEL® SAX columns for HPLC	142	Stainless steel capillary tubing and accessories for HPLC	157
NUCLEOSIL® SB columns for HPLC	127	Standard septa for GC	252
NUCLEOSIL® SB packings for HPLC	162	Standard silica for HPLC see NUCLEOSIL®	
Screw caps for vials	76-79	Standard Super-Cel kieselguhr	167
SCX cation exchangers		Stationary phases, summaries	
CHROMABOND® SA phase for SPE	28	for GC: OPTIMA®	201
NUCLEOGEL® SCX columns for HPLC	142	for GC: special separations	223
NUCLEOSIL® SA columns for HPLC	126	for HPLC: NUCLEODUR®	88
NUCLEOSIL® SA packings for HPLC	161	for HPLC: NUCLEOSIL®	108
Sealing disks for vial caps	65, 67, 69, 73, 77-79	for HPLC: special separations	130
Separation efficiency in HPLC	90	for SPE	8
Septa for GC, septum remover	252	for TLC	174
Serum bottles see Vials		Steel crimp caps for vials	73
Shrinking tube (PTFE) for GC capillaries	249	Steric selectivity in HPLC	96, 110
Silane analysis, PERMABOND® columns for GC	229	Sterile cellulose acetate filters CHROMAFIL®	59
Silanised glass fibre wadding, very fine fibres	254	Sterilizer, polyethersulfone syringe filter	
Silanised sample vials	77	for sterile filtration	60
Silanised silica, layers for TLC	181	Steroids	
Silarylene phases for GC	210, 211	HPLC separation	103
Silica		TLC separation	175, 182
for column chromatography, adsorbents	166	Stoppers for vials	73
for HPLC		Sub-2 µm particles for HPLC	90
analytical columns with NUCLEODUR®	88	Sugar analysis, HPLC columns	146-148
analytical columns with NUCLEOSIL®	108	Superspher® ChromCart® cartridges	128
NUCLEODUR® bulk packings	159	Supports for TLC layers	173
NUCLEOSIL® bulk packings	160	Syringe filters CHROMAFIL®	62
POLYGOPREP bulk packings	164	Systems for point-of-use gas purification	253
POLYGOSIL® bulk packings	162	T	
preparative columns with NUCLEODUR® and NUCLEOSIL®	150	Tees for Valco fused silica adaptors for GC	251
for SPE, phase summary	8	Teflon	
for TLC		ferrules for GC	248
adsorbents	195	also see PTFE	
layers	174	Teledyne ISCO® Flash systems	
Silica / cellulose mixed layers for TLC	190	CHROMABOND® cartridges	51
Silica / ion exchange resin layers for TLC	190	Test mixtures	
Silica / kieselguhr mixed layers for TLC	190	for GC capillary columns	244
		for GC chiral columns	234
		for GC environmental analyses	246



for HPLC RP columns	107		
for TLC micro-sets	192, 193		
Tetracycline enrichment, SPE phase	33		
TFAA (trifluoroacetic acid anhydride)	238		
Thin layer chromatography see TLC			
Threaded vials and screw caps	76, 79		
TLC adsorbents	195, 196		
TLC introductory kits · TLC micro-sets	192		
TLC layers, summary	174		
TLC wine set	193		
TMCS (trimethylchlorosilane)	242		
TMSH (trimethylsulphonium hydroxide)	239		
Tools			
crimpers for vials	74		
diamond file for GC	254		
glass wool extractor for GC	254		
magnifying lens	254		
septum remover for GC	252		
Tributyl-pentyl-tin			
Optima 5 MS	209		
Trifluoroacetic acid anhydride (TFAA)	238		
Triglyceride analysis, OPTIMA® GC columns	228		
Trimethylchlorosilane (TMCS)	242		
N,O-bis-Trimethylsilyl-acetamide (BSA)	240		
N-Trimethylsilyl-imidazole (TSIM)	242		
N,O-bis-Trimethylsilyl-trifluoroacetamide (BSTFA)	240		
Trimethylsulphonium hydroxide (TMSH)	239		
TSIM (N-trimethylsilyl-imidazole)	242		
U			
Ultra-fast HPLC	90		
Ultra-low bleed capillary columns for GC	207, 210, 211		
Unions			
for capillary GC	249-251		
for HPLC	157, 158		
Untreated fused silica capillaries	235		
USP specification			
of GC phases	256		
of HPLC phases	255		
UV absorption in TLC	172		
UV indicators for TLC	196		
V			
Vacuum manifolds for SPE	40, 45		
Valco fused silica adaptors and fittings for capillary GC	250		
Valco type columns for HPLC	156		
VarioPrep columns for preparative HPLC	153		
Vespel and Vespel/graphite ferrules for GC	248		
Vials			
autosampler compatibility	80		
containers	84		
crimp top vials and caps	65		
threaded vials and screw caps	76		
Visualisation of substances in TLC	172		
Visualisation reagents for TLC	194		
Volatile hydrocarbons			
GC capillary columns	215, 227		
W			
Water analysis			
SPE of aromatics, pesticides and phenols	10-14		
SPE of hydrocarbons and AOX	34, 36		
SPE of PAH	34, 35		
Water removal			
from gases, H ₂ O-free cartridges	253		
from organic samples, CHROMAFIX® Dry cartridges	31		
WCX, CHROMABOND® PCA phase for SPE	27		
96-well format for SPE and filtration	6		
Wine analysis			
determination of diethylene glycol by GC	229		
TLC wine set	193		



531011	194	70206.36	70	70238	72	70275	75	702928	73
701110.110	238	70207	70	70239	67	70276	73	702928.9	73
701110.201	238	70208.36	71	70240	73	70277	73	702929	73
701110.510	238	70209.1	71, 84	702401	67	702773	72	702931	73
701120.101	238	70210.36	71	70241	67	702774	73	702931.1	73
701130.110	238	70212	65	70242	73	70278	73	702962	78
701130.510	238	70212.1	65	70243	77	70279	73	702963	79
701210.110	240	70213	76	702431	77	70280	84	702966	79
701210.150	240	70213.2	76	702437	77	702800	65	702967	69
701210.510	240	70214	66	70244.1	77	702801	67	702967	79
701220.110	240	702141	66	70245	77	702802	69	702968	66, 76
701220.201	240	70214 CG	66	70246	65, 77	702803	69	702968.1	66, 76
701220.510	240	70215.36	70	70247	65, 77	702804	72	702972	78
701260.110	241	70216.36	70	70248	65, 77	702805	72	702973	78
701260.1100	241	70217.36	70	702481	65, 77	702806	72	702974	78
701260.201	241	70218	70	70249	77	702807	75	702974.1	66, 76
701260.510	241	70219	70	70250	77	702809	66	702995	67
701260.6100	241	70220	70	70251	65	702813	66, 77	702D20TB	73
701270.110	241	702210	78	702514	84	702815	72	702N20 GT	73
701270.1100	241	702220	78	702515	84	702817	72	702V 001	84
701270.12100	241	702230	79	702516	84	702818	66, 68, 77	702V 001 UP	84
701270.201	241	702240	79	70252.1	65	70282	65	702V 005 UP	84
701270.510	241	702250	66	70253	69	702820	69	702V leer 01	84
701270.6100	241	70226	70	70254	70	702823	67	706120	157
701270.650	241	702261	70	70255	69	702824	66, 76	706121	157
701410.110	238	702263	70	70256	67	70283	65	706290	157
701410.201	238	702266	77	70257	69	702834	72	711001.1000	165
701410.510	238	702270	78	70258	69	702835	72	711001.5000	165
701420.101	238	702280	79	70260	69, 79	702836	72	711002.1000	165
701420.201	238	702282	77	70261	65, 77	702837	72	711002.5000	165
701430.110	239	702283	77	70262	67	702838	72	711003.1000	165
701430.201	239	702284	77	70263	67	70284	67	711003.5000	165
701440.101	241	702285	78	70264	67	702842	67	711004.100	165
701440.201	241	702285.1	78	70265	67	702843	67	711004.1000	165
701490.1100	240	702286	78	70266	73	702844	76	711005.100	165
701490.150	240	702287	78	70267	73	702845	76	711005.1000	165
701490.201	240	702287.1	78	70268	67	70286	65	711006.100	165
701520.101	239	702288	78	70269	73	702860	76	711006.1000	165
701520.110	239	702288.1	78	70270	78	702879	67	711007.100	164
701520.201	239	702290	78	702708	68	70288	67	711007.1000	164
701520.510	239	702300	79	70271	75	702885	66	711008.100	164
701950	237	70231	67	702710	68	702888	66	711008.1000	164
701951	237	70231.1	67	702711	68	70289	65	711009.100	164
701952	237	70231.2	67	702712	68	702891	66	711009.1000	164
701953	237	70231.3	67	702713	68	702892	66	711010.10	163
70201	66	70232	69	702714	68	702893	76	711010.100	163
70201 CG	66	70233	72	702715	68	702903	67	711011.100	164
70201 HP	66	70234	72	702716	68	702904	73	711011.1000	164
70202.1	75	70234.8	72	702717	68	702917	70	711012.100	165
70203	69	70234.9	72	702718	68	702918	70	711012.1000	165
70204.36	70	70235	72	70272	75	702924	70	711013.100	165
70205.36	70	70236	72	70273	75	702926	79	711013.1000	165
70206	70	70237	72	70274	75	702927	72	711014.100	165



Index of catalogue numbers

Appendices

711014.1000	165	711280.10	163	711580.100	163	712110.10	160	712410.100	162
711015.100	165	711280.100	163	711590.100	164	712110.100	160	712420.10	162
711015.1000	165	711300.10	163	711590.1000	164	712120.10	160	712420.100	162
711016.100	165	711300.100	163	711600.10	163	712120.100	160	712430.10	162
711016.1000	165	711310.10	163	711600.100	163	712130.10	160	712430.100	162
711017.100	165	711310.100	163	711610.100	165	712130.100	160	712440.10	162
711017.1000	165	711320.10	163	711610.1000	165	712140.10	160	712440.100	162
711018.100	164	711320.100	163	711620.100	165	712140.100	160	712450.10	162
711018.1000	164	711330.10	163	711620.1000	165	712150.10	160	712450.100	162
711019.100	164	711330.100	163	711630.100	165	712150.100	160	712460.10	160
711019.1000	164	711340.10	163	711630.1000	165	712160.10	161	712460.100	160
711020.10	163	711340.100	163	711680.10	163	712160.100	161	712470.10	160
711020.100	163	711350.10	163	711680.100	163	712170.10	161	712470.100	160
711021.100	164	711350.100	163	711690.100	164	712170.100	161	712480.10	160
711021.1000	164	711360.10	163	711690.1000	164	712180.10	161	712480.100	160
711022.100	164	711360.100	163	711700.100	164	712180.100	161	712490.10	160
711022.1000	164	711370.10	163	711700.1000	164	712190.10	161	712490.100	160
711023.100	164	711370.100	163	711710.10	163	712190.100	161	712500.10	160
711023.1000	164	711380.10	163	711710.100	163	712200.10	161	712500.100	160
711024.100	164	711380.100	163	711720.100	164	712200.100	161	712510.10	161
711024.1000	164	711390.10	163	711720.1000	164	712210.10	161	712510.100	161
711025.100	164	711390.100	163	711730.100	164	712210.100	161	712520.10	160
711025.1000	164	711400.10	163	711730.1000	164	712220.10	161	712520.100	160
711026.100	164	711400.100	163	711890.10	163	712220.100	161	712530.10	160
711026.1000	164	711410.10	163	711890.100	163	712230.10	161	712530.100	160
711027.100	164	711410.100	163	711991.10	163	712230.100	161	712540.10	160
711027.1000	164	711420.10	163	711991.100	163	712240.10	161	712540.100	160
711028.100	164	711420.100	163	711992.10	163	712240.100	161	712550.10	160
711028.1000	164	711430.10	163	711992.100	163	712250.10	161	712550.100	160
711029.100	164	711430.100	163	712000.10	162	712250.100	161	712560.10	161
711029.1000	164	711470.100	164	712000.100	162	712260.10	162	712560.100	161
711031.100	164	711470.1000	164	712010.10	162	712260.100	162	712570.10	160
711031.1000	164	711480.100	164	712010.100	162	712270.10	162	712570.100	160
711032.100	164	711480.1000	164	712020.10	162	712270.100	162	712580.10	160
711032.1000	164	711490.100	164	712020.100	162	712290.10	161	712580.100	160
711033.1000	165	711490.1000	164	712030.10	162	712290.100	161	712590.10	160
711033.5000	165	711500.100	164	712030.100	162	712310.10	161	712590.100	160
711034.1000	165	711500.1000	164	712031.10	160	712310.100	161	712600.10	161
711034.5000	165	711510.10	163	712031.100	160	712311.10	161	712600.100	161
711035.100	165	711510.100	163	712032.10	160	712311.100	161	712610.10	161
711035.1000	165	711520.10	163	712032.100	160	712340.10	161	712610.100	161
711036.100	165	711520.100	163	712040.10	162	712340.100	161	712620.10	161
711036.1000	165	711530.10	163	712040.100	162	712350.10	161	712620.100	161
711037.1000	165	711530.100	163	712050.10	162	712350.100	161	712630.10	161
711037.5000	165	711540.1000	165	712050.100	162	712360.10	162	712630.100	161
711240.1000	165	711540.5000	165	712060.10	162	712360.100	162	712640.10	161
711240.5000	165	711550.1000	165	712060.100	162	712370.10	160	712640.100	161
711250.1000	165	711550.5000	165	712080.10	161	712370.100	160	712650.10	160
711250.5000	165	711560.10	163	712080.100	161	712390.10	162	712650.100	160
711260.1000	165	711560.100	163	712100.10	160	712390.100	162	712660.10	160
711260.5000	165	711570.10	163	712100.100	160	712400.10	162	712660.100	160
711270.1000	165	711570.100	163	712101.10	160	712400.100	162	712670.10	161
711270.5000	165	711580.10	163	712101.100	160	712410.10	162	712670.100	161



712680.10	162	713551.1	159	715345.100	152	717046.10	118	717743.10	99
712680.100	162	713600.0100	159	715345.210	152	717047.10	119	717744.10	99
712690.10	162	713600.1	159	715630.100	152	717048.10	114	717760.10	97
712690.100	162	713601.0100	159	715630.160	152	717049.10	118	717761.10	97
712700.10	162	713601.1	159	715630.210	152	717055.10	119	717762.10	97
712700.100	162	713610.0100	159	715630.80	152	717056.10	114	717770.10	97
712710.10	162	713610.1	159	715711.100	152	717057.10	118	717771.10	97
712710.100	162	713611.0100	159	715806.100	152	717058.10	119	717772.10	97
712720.10	162	713611.1	159	715806.210	152	717059.10	114	718002	52
712720.100	162	713615.0100	159	715851.210	152	717065.10	113	718505	157
712730.10	162	713615.1	159	717001.10	113	717066.10	113	718516	157
712730.100	162	713618.0100	159	717002.10	111	717067.10	113	718517	157
712740.10	161	713618.1	159	717003.10	110	717068.10	113	718582	154
712740.100	161	713620.0100	159	717004.10	112	717110.10	113	718583	154
712750.10	161	713620.1	159	717005.10	111	717111.10	113	718584	154
712750.100	161	713621.0100	159	717006.10	113	717112.10	113	718588	157
712760.10	160	713621.1	159	717007.10	115	717113.10	113	718589	157
712760.100	160	713630.0100	159	717008.10	116	717115.10	118	718634	157
712770.10	161	713630.1	159	717009.10	116	717116.10	118	718635	157
712770.100	161	713631.0100	159	717010.10	111	717117.10	118	718637	157
712780.10	161	713631.1	159	717011.10	110	717118.10	118	718670	157
712780.100	161	715205.100	152	717012.10	112	717120.10	115	718671	157
712790.10	160	715205.210	152	717013.10	111	717121.10	115	718672	157
712790.100	160	715230.100	139	717014.10	113	717122.10	115	718673	157
712820.10	161	715231.100	139	717015.10	113	717123.10	115	718674	157
712820.100	161	715265.100	152	717016.10	115	717680.10	101	718676	157
712830.10	160	715265.210	152	717017.10	116	717681.10	101	718677	157
712830.100	160	715275.100	152	717018.10	116	717682.10	101	718678	157
712840.10	161	715275.160	152	717019.10	111	717683.10	101	718731	157
712840.100	161	715275.210	152	717020.10	110	717684.10	101	718732	157
712850.10	162	715275.80	152	717021.10	112	717700.10	106	718733	157
712850.100	162	715290.80	152	717022.10	111	717701.10	106	718734	157
712860.10	162	715292.80	152	717023.10	113	717702.10	106	718735	157
712860.100	162	715293.100	152	717024.10	113	717703.10	106	718736	157
712870.10	162	715293.210	152	717025.10	115	717705.10	95	718737	157
712870.100	162	715293.80	152	717026.10	116	717706.10	95	718738	157
712919.10	161	715316.100	144	717027.10	116	717707.10	95	718750	157
712919.100	161	715318.100	144	717028.10	111	717708.10	95	718751	157
712923.10	161	715325.100	144	717029.10	110	717710.10	106	718752	157
712923.100	161	715326.100	144	717030.10	112	717711.10	106	718753	157
712924.10	161	715330.160	152	717031.10	111	717712.10	106	718755	158
712924.100	161	715330.80	152	717032.10	113	717713.10	106	718760	158
712925.10	161	715331.100	152	717033.10	113	717714.10	95	718761	158
712925.100	161	715331.160	152	717034.10	115	717715.10	95	718762	158
712926.10	160	715331.210	152	717035.10	116	717716.10	95	718763	158
712926.100	160	715331.80	152	717036.10	116	717717.10	95	718765	158
712927.10	161	715332.100	152	717037.10	112	717722.10	99	718766	158
712927.100	161	715332.160	152	717038.10	112	717723.10	99	718767	158
712952.10	160	715332.210	152	717039.10	112	717724.10	99	718768	158
712952.100	160	715332.400	152	717040.10	112	717725.10	99	718769	158
713550.0100	159	715332.80	152	717043.10	118	717740.10	99	718770	158
713550.1	159	715340.100	152	717044.10	119	717741.10	99	718771	158
713551.0100	159	715340.210	152	717045.10	114	717742.10	99	718772	158



Index of catalogue numbers

Appendices

718775	158	719485	156	720023.40	111	720071.30	117	720170.40	115
718790	157	719486	156	720023.46	111	720071.40	117	720170.46	115
718837	153	719487	156	720024.40	121	720071.46	117	720174.46	115
718842	153	719488	156	720024.46	121	720074.40	114	720175.20	115
718848	153	719489	156	720028.40	126	720074.46	114	720175.30	115
718852	153	719490	156	720028.46	126	720077.40	114	720175.40	115
718853	153	719501	148	720029.40	127	720077.46	114	720175.46	115
718854	153	719510	145	720029.46	127	720081.40	136	720191.20	112
718861	153	719520	145	720040.20	111	720085.40	114	720191.30	112
718862	153	719530	148	720040.30	111	720085.46	114	720191.40	112
718870	153	719531	148	720040.40	111	720088.40	137	720191.46	112
718931	153	719532	148	720040.46	111	720089.40	119	720192.20	112
718987	154	719533	132	720041.20	112	720089.46	119	720192.30	112
718988	154	719534	148	720041.30	112	720090.40	121	720192.40	112
718992	154	719535	148	720041.40	112	720090.46	121	720192.46	112
718998	154	719536	148	720041.46	112	720092.40	116	720193.46	112
719402	149	719537	148	720042.40	112	720092.46	116	720194.46	118
719403	149	719540	142	720042.46	112	720093.40	122	720195.20	118
719404	149	719542	145	720043.40	112	720093.46	122	720195.30	118
719405	149	719543	132	720043.46	112	720094.40	132	720195.40	118
719406	149	719570	147	720045.40	143	720095.30RP	124	720195.46	118
719407	149	719571	147	720046.40	138	720095.40	124	720196.20	118
719408	149	719574	147	720050.20	117	720095.46	124	720196.30	118
719409	149	719575	147	720050.30	117	720096.40	119	720196.40	118
719410	149	719600	142	720050.40	117	720096.46	119	720196.46	118
719411	149	720001.30	116	720050.46	117	720097.40	126	720205.40	121
719412	149	720001.40	116	720051.20	112	720097.46	126	720205.46	121
719413	149	720001.46	116	720051.30	112	720098.40	110	720214.46	117
719414	149	720002.20	111	720051.40	112	720098.46	110	720230.40	143
719415	149	720002.30	111	720051.46	112	720099.30	122	720231.40	143
719416	149	720002.40	111	720052.20	117	720099.40	122	720232.40	143
719417	149	720002.46	111	720052.30	117	720099.46	122	720244.40	143
719418	149	720013.30	116	720052.40	117	720117.20	131	720245.40	143
719454	145	720013.40	116	720052.46	117	720117.30	131	720250.40	144
719455	145	720013.46	116	720055.20	111	720117.40	131	720251.40	144
719456	145	720014.20	111	720055.30	111	720117.46	131	720252.40	144
719457	145	720014.30	111	720055.40	111	720120.46	111	720256.40	144
719459	145	720014.40	111	720055.46	111	720121.30RP	124	720257.40	144
719460	145	720014.46	111	720057.40	121	720124.40	133	720258.40	144
719461	145	720015.40	122	720057.46	121	720125.40	133	720275.40	124
719462	145	720015.46	122	720058.40	124	720127.40	133	720275.46	124
719463	145	720016.40	122	720058.46	124	720133.20	110	720280.20	112
719464	145	720016.46	122	720059.40	119	720133.30	110	720280.30	112
719465	145	720017.40	117	720059.46	119	720133.40	110	720280.40	112
719469	142	720017.46	117	720060.40	119	720133.46	110	720280.46	112
719470	142	720018.40	111	720060.46	119	720143.40	123	720294.46	112
719471	142	720018.46	111	720062.40	117	720143.46	123	720296.20	112
719472	142	720019.40	120	720062.46	117	720150.20	110	720296.30	112
719475	142	720019.46	120	720065.40	114	720150.30	110	720296.40	112
719476	142	720021.40	123	720065.46	114	720150.40	110	720296.46	112
719477	142	720021.46	123	720070.40	123	720150.46	110	720305.46	113
719478	142	720022.40	117	720070.46	123	720170.20	115	720350.40	137
719483	149	720022.46	117	720071.20	117	720170.30	115	720401.40	139



720402.40	139	720703.46	117	721130.20	113	721494.40	112	721612.30	118
720403.40	139	720713.20	114	721130.30	113	721495.46	112	721612.40	118
720430.20	113	720713.30	114	721130.40	113	721497.20	118	721613.30	115
720430.30	113	720730.46	112	721130.46	113	721497.30	118	721613.40	115
720430.40	113	720735.46	117	721131.20	113	721497.40	118	721620.20	122
720430.46	113	720740.46	111	721131.30	113	721497.46	118	721620.30	122
720431.20	113	720752.40	133	721131.40	113	721498.20	118	721620.40	122
720431.30	113	720756.40	131	721131.46	113	721498.30	118	721620.46	122
720431.40	113	720905.40	146	721132.46	113	721498.40	118	721621.20	116
720431.46	113	720923.30	131	721140.30	113	721498.46	118	721621.30	116
720432.46	113	720923.40	131	721140.40	113	721500.30	118	721621.40	116
720444.46	135	720935.20	113	721150.20	115	721500.40	118	721621.46	116
720445.46	135	720935.30	113	721150.30	115	721501.46	118	721622.20	111
720446.46	135	720935.40	113	721150.40	115	721516.46	122	721622.30	111
720449.46	135	720935.46	113	721150.46	115	721521.46	117	721622.40	111
720450.46	135	720936.20	113	721151.20	115	721523.46	127	721622.46	111
720451.46	135	720936.30	113	721151.30	115	721525.46	126	721623.20	113
720470.20	113	720936.40	113	721151.40	115	721533.30	120	721623.30	113
720470.30	113	720936.46	113	721151.46	115	721533.40	120	721623.40	113
720470.40	113	720949.46	110	721153.46	115	721535.30	120	721623.46	113
720470.46	113	720956.30	120	721154.30	115	721535.40	120	721624.20	121
720471.46	113	720956.40	120	721154.40	115	721537.30	120	721624.30	121
720472.20	113	720956.46	120	721342.30	126	721537.40	120	721624.40	121
720472.30	113	720990.46	116	721342.40	126	721594.40	144	721624.46	121
720472.40	113	720993.40	121	721342.46	126	721595.40	146	721625.20	124
720472.46	113	720993.46	121	721359	154	721599.30	131	721625.30	124
720526.20	118	720994.40	125	721452.40	132	721599.40	131	721625.30RP	124
720526.30	118	720994.46	125	721455.40	136	721600.30	122	721625.40	124
720526.40	118	720996.40	127	721458.40	137	721600.40	122	721625.46	124
720526.46	118	720996.46	127	721460.40	133	721601.30	116	721626.20	111
720527.46	118	721000.40	134	721462.40	133	721601.40	116	721626.30	111
720528.20	118	721001.40	134	721464.40	133	721602.30	111	721626.40	111
720528.30	118	721002.40	135	721466.40	133	721602.40	111	721626.46	111
720528.40	118	721003.40	135	721471.30	123	721603.30	113	721627.20	119
720528.46	118	721007.40	135	721471.40	123	721603.40	113	721627.30	119
720540.20	115	721008.40	135	721478.30	123	721604.30	121	721627.40	119
720540.30	115	721069.40	119	721478.40	123	721604.40	121	721627.46	119
720540.40	115	721091.40	139	721480.30	123	721605.30	124	721628.20	114
720540.46	115	721098.30	117	721480.40	123	721605.30RP	124	721628.30	114
720541.46	115	721098.40	117	721486.30	126	721605.40	124	721628.40	114
720542.20	115	721101.30	117	721486.40	126	721605.40RP	124	721628.46	114
720542.30	115	721101.40	117	721486.46	126	721606.30	111	721629.20	112
720542.40	115	721103.30	117	721487.30	126	721606.40	111	721629.30	112
720542.46	115	721103.40	117	721487.40	126	721607.30	119	721629.40	112
720644.46	134	721113.40	143	721491.20	112	721607.40	119	721629.46	112
720645.46	134	721120.30	124	721491.30	112	721608.30	114	721640.46	122
720654.46	134	721120.40	124	721491.40	112	721608.40	114	721641.46	116
720655.46	134	721120.46	124	721491.46	112	721609.30	111	721642.46	111
720695.20	120	721121.30	124	721492.20	112	721609.40	111	721643.46	113
720695.30	120	721121.40	124	721492.30	112	721609.46	111	721644.46	121
720703.20	117	721121.46	124	721492.40	112	721610.40	125	721645.46	124
720703.30	117	721122.30	124	721492.46	112	721611.30	113	721645.46RP	124
720703.40	117	721122.40	124	721494.30	112	721611.40	113	721646.46	111



Index of catalogue numbers

Appendices

721647.46	119	721669.20	118	721786.46	117	721854.46	112	721890.30	119
721648.46	114	721669.30	118	721787.30	117	721860.30	120	721890.40	119
721651.20	113	721669.40	118	721787.40	117	721860.40	120	721891.30	119
721651.30	113	721669.46	118	721795.20	116	721860.46	120	721891.40	119
721651.40	113	721672.20	115	721795.30	116	721861.30	120	721892.20	117
721651.46	113	721672.30	115	721795.40	116	721861.40	120	721892.30	117
721652.20	113	721672.40	115	721795.46	116	721861.46	120	721892.40	117
721652.30	113	721672.46	115	721796.20	116	721862.30	120	721892.46	117
721652.40	113	721673.20	115	721796.30	116	721862.40	120	721917.40	121
721652.46	113	721673.30	115	721796.40	116	721863.30	121	721920	133
721658.20	118	721673.40	115	721796.46	116	721863.40	121	722319	234
721658.30	118	721673.46	115	721797.46	116	721864.30	121	722321	234
721658.40	118	721681.30	111	721801.20	117	721864.40	121	722322	234
721658.46	118	721681.40	111	721801.30	117	721865.20	110	722323	234
721659.46	112	721683.30	126	721801.40	117	721865.30	110	722324	234
721660.20	122	721683.40	126	721801.46	117	721865.40	110	722393	131
721660.30	122	721687.40	144	721805.30	116	721865.46	110	723052.25	221
721660.40	122	721688.30	127	721805.40	116	721866.30	110	723052.50	221
721660.46	122	721688.40	127	721806.46	110	721866.40	110	723054.25	221
721661.20	116	721688.46	127	721820	155	721870.20	122	723060.10	222
721661.30	116	721689.30	111	721823	155	721870.30	122	723060.25	222
721661.40	116	721689.40	111	721826.20	110	721870.40	122	723060.30	222
721661.46	116	721689.46	111	721826.30	110	721870.46	122	723060.50	222
721662.20	111	721690	155	721826.40	110	721871.20	122	723060.60	222
721662.30	111	721691	155	721826.46	110	721871.30	122	723063.25	229
721662.40	111	721692	155	721827.46	110	721871.40	122	723064.10	222, 224
721662.46	111	721693	155	721828.20	110	721871.46	122	723101.10	235
721663.20	113	721694	155	721828.30	110	721872.30	122	723101.25	235
721663.30	113	721695	155	721828.40	110	721872.40	122	723105.10	235
721663.40	113	721702.40	138	721828.46	110	721873.40	119	723105.25	235
721663.46	113	721703.46	113	721829.30	110	721874.40	119	723106.10	235
721664.20	121	721704.46	118	721829.40	110	721878.30	111	723106.25	235
721664.30	121	721705.46	115	721831.20	116	721878.40	111	723108.10	235
721664.40	121	721706.30	126	721831.30	116	721879.30	127	723108.25	235
721664.46	121	721706.40	126	721831.40	116	721879.40	127	723116.10	222
721665.20	124	721707.30	121	721831.46	116	721881.30	126	723116.25	222
721665.30	124	721707.40	121	721832.46	116	721881.40	126	723116.30	222
721665.30RP	124	721712.20	112	721833.20	116	721882.30	127	723116.50	222
721665.40	124	721712.30	112	721833.30	116	721882.40	127	723116.60	222
721665.40RP	124	721712.40	112	721833.40	116	721883.20	110	723148.10	235
721665.46	124	721712.46	112	721833.46	116	721883.30	110	723148.25	235
721666.20	111	721722.46	117	721834.30	116	721883.40	110	723151.10	235
721666.30	111	721782.20	117	721834.40	116	721883.46	110	723151.25	235
721666.40	111	721782.30	117	721850.20	112	721884.30	127	723180.10	222, 224
721666.46	111	721782.40	117	721850.30	112	721884.40	127	723180.20	222, 224
721667.20	119	721782.46	117	721850.40	112	721884.46	127	723181.10	222, 224
721667.30	119	721783.30	112	721850.46	112	721885.30	127	723296.10	222
721667.40	119	721783.40	112	721852.20	112	721885.40	127	723296.25	222
721667.46	119	721785.30	117	721852.30	112	721886.30	127	723296.30	222
721668.20	114	721785.40	117	721852.40	112	721886.40	127	723296.50	222
721668.30	114	721786.20	117	721852.46	112	721887.46	120	723296.60	222
721668.40	114	721786.30	117	721853.30	112	721889.30	119	723306.25	221
721668.46	114	721786.40	117	721853.40	112	721889.40	119	723308.50	221



723310.25	221	723515.10	222	723890.100	226	726050.60	205	726118.30	217
723312.25	221	723515.25	222	723936.25	222	726056.10	208	726118.50	217
723321.10	222	723517.10	222	723936.50	222	726056.15	208	726118.60	217
723321.25	222	723517.25	222	723945.25	227	726056.25	208	726131.10	228
723321.30	222	723517.30	222	723945.50	227	726056.30	208	726131.25	228
723321.50	222	723549.10	222	724C226186	49	726056.50	208	726132.10	228
723321.60	222	723549.25	222	725801.25	207	726056.60	208	726132.25	228
723327.25	229	723549.30	222	725801.50	207	726058.10	213	726133.10	228
723341.25	222	723555.10	222	725802.30	207	726058.15	213	726133.25	228
723341.30	222	723555.25	222	725802.60	207	726058.25	213	726180.10	220, 224
723341.50	222	723555.50	222	725805.15	207	726058.30	213	726201.25	206
723341.60	222	723558.10	235	725805.30	207	726058.50	213	726201.50	206
723344.10	222	723558.25	235	725805.60	207	726058.60	213	726202.30	206
723344.25	222	723560.10	235	725806.30	207	726064.30	213	726202.60	206
723344.30	222	723560.25	235	725806.60	207	726064.60	213	726203.12	206
723344.50	222	723562.10	235	725807.30	207	726065.12	212	726205.15	206
723344.60	222	723562.25	235	725807.60	207	726065.25	212	726205.30	206
723346.10	235	723706.10	236	725810.25	210	726065.50	212	726205.60	206
723346.25	235	723706.25	236	725810.50	210	726066.25	212	726210.12	209
723348.10	235	723707.10	236	725811.30	210	726066.50	212	726210.25	209
723348.25	235	723707.25	236	725811.60	210	726067.25	212	726210.50	209
723349.10	235	723708.10	236	725812.25	210	726067.30	212	726211.30	209
723349.25	235	723708.25	236	725812.60	210	726067.50	212	726212.25	209
723356.25	222	723709.10	236	725813.30	210	726067.60	212	726212.50	209
723356.50	222	723709.25	236	725815.12	210	726080.10	217, 224	726212.60	209
723358.25	233	723710.10	236	725815.50	210	726081.10	205	726213.30	209
723358.50	233	723710.25	236	725820.15	210	726081.25	205	726215.12	209
723360.25	231	723711.10	236	725820.30	210	726081.30	205	726215.25	209
723360.50	231	723711.25	236	725820.60	210	726081.50	205	726215.50	209
723362.25	231	723712.10	236	725825.30	210	726081.60	205	726220.15	209
723362.50	231	723712.25	236	725825.60	210	726089.30	218	726220.30	209
723364.25	231	723713.10	236	725826.30	210	726089.50	218	726220.60	209
723364.50	231	723713.25	236	725826.60	210	726089.60	218	726225.30	209
723366.25	231	723714.10	236	725850.30	211	726090.30	218	726225.60	209
723366.50	231	723714.25	236	725850.60	211	726090.60	218	726226.30	209
723368.25	231	723730.25	234	726022.15	212	726091.25	218	726296.25	219
723368.50	231	723730.50	234	726022.25	212	726091.30	218	726296.30	219
723370.25	233	723732.25	234	726022.30	212	726091.50	218	726296.50	219
723370.50	233	723732.50	234	726022.50	212	726091.60	218	726296.60	219
723379.25	231	723790.1	235	726022.60	212	726095.30	218	726301.10	205
723379.50	231	723790.2	235	726024.10	205, 224	726095.60	218	726301.25	205
723381.25	233	723791.1	235	726024.20	205, 224	726096.30	218	726301.30	205
723381.50	233	723791.2	235	726025.20	205, 224	726096.60	218	726301.50	205
723382.10	224, 231	723792.1	235	726038.10	205	726099.25	208	726301.60	205
723383.10	224, 233	723792.2	235	726038.15	205	726099.30	208	726302.10	205
723384.25	233	723793.1	235	726038.25	205	726099.50	208	726302.15	205
723384.50	233	723793.2	235	726038.30	205	726099.60	208	726302.25	205
723387.25	233	723827.10	222	726038.60	205	726116.25	220	726302.30	205
723387.50	233	723827.25	222	726050.10	205	726116.30	220	726302.50	205
723409.50	229	723827.50	222	726050.15	205	726116.50	220	726302.60	205
723411.25	229	723830.10	222	726050.25	205	726116.60	220	726304.10	205
723501.10	235	723830.25	222	726050.30	205	726118.15	217	726304.25	205
723501.25	235	723830.50	222	726050.50	205	726118.25	217	726304.30	205



Index of catalogue numbers

Appendices

726304.50	205	726351.50	212	726545.25	213	726785.60	215	726871.25	216
726304.60	205	726351.60	212	726545.30	213	726786.30	215	726871.30	216
726313.10	208	726352.25	217	726548.30	219	726786.50	215	726871.50	216
726313.15	208	726352.30	217	726549.25	219	726787.25	215	726871.60	216
726313.25	208	726352.50	217	726549.30	219	726787.30	215	726874.30	216
726313.30	208	726352.60	217	726600.25	219	726787.50	215	726874.50	216
726313.50	208	726353.30	225	726600.30	219	726787.60	215	726874.60	216
726313.60	208	726354.30	225	726600.50	219	726789.25	215	726877.15	216
726314.15	208	726355.25	225	726600.60	219	726789.30	215	726877.30	216
726314.25	208	726356.30	225	726623.25	208	726802.25	205	726877.50	216
726314.30	208	726357.30	225	726623.30	208	726802.30	205	726877.60	216
726314.50	208	726358.30	225	726623.50	208	726802.50	205	726880.25	216
726314.60	208	726359.30	225	726623.60	208	726802.60	205	726880.30	216
726316.25	208	726360.30	225	726628.25	208	726805.25	205	726880.50	216
726316.30	208	726361.10	224, 225	726628.30	208	726805.30	205	726880.60	216
726316.50	208	726400.25	203	726628.50	208	726805.50	205	726911.25	208
726316.60	208	726400.50	203	726628.60	208	726805.60	205	726911.30	208
726318.10	213	726410.10	203, 224	726735.15	213	726807.25	208	726911.50	208
726318.15	213	726410.20	203, 224	726735.25	213	726807.30	208	726911.60	208
726318.25	213	726420.30	203	726735.30	213	726807.50	208	726916.10	208
726318.30	213	726420.60	203	726735.50	213	726807.60	208	726916.25	208
726318.50	213	726421.30	203	726742.25	212	726809.25	208	726916.30	208
726318.60	213	726440.30	203	726742.30	212	726809.30	208	726916.50	208
726320.25	213	726440.60	203	726742.50	212	726809.50	208	726926.10	205
726320.30	213	726441.30	203	726742.60	212	726809.60	208	726926.25	205
726320.50	213	726441.60	203	726744.25	212	726821.25	205	726926.30	205
726320.60	213	726442.30	203	726744.30	212	726821.30	205	726926.50	205
726321.25	219	726442.60	203	726744.50	212	726821.50	205	726929.25	213
726321.30	219	726443.30	203	726744.60	212	726821.60	205	726929.30	213
726321.50	219	726490.10	224	726747.10	212	726824.25	213	726929.50	213
726321.60	219	726519.25	205	726747.15	212	726824.30	213	726929.60	213
726323.10	205	726519.30	205	726747.25	212	726824.50	213	726931.10	205
726323.15	205	726521.10	205	726747.30	212	726824.60	213	726931.25	205
726323.25	205	726521.25	205	726755.30	212	726832.25	205	726931.30	205
726323.30	205	726521.30	205	726757.25	212	726834.12	205	726931.50	205
726323.50	205	726523.10	208	726757.30	212	726834.25	205	726934.15	208
726323.60	205	726523.25	208	726757.50	212	726834.50	205	726934.25	208
726325.15	208	726523.30	208	726757.60	212	726837.12	205	726934.30	208
726325.25	208	726525.10	208	726771.25	214	726837.25	205	726965.30	213
726325.30	208	726525.25	208	726771.30	214	726837.50	205	727400	52
726325.50	208	726525.30	208	726771.50	214	726839.50	205	727401	52
726325.60	208	726525.50	208	726771.60	214	726841.25	213	727402	52
726341.25	220	726525.60	208	726777.25	214	726841.50	213	727403	52
726341.30	220	726529.10	205	726777.30	214	726846.10	208, 224	727404	52
726341.50	220	726529.15	205	726777.60	214	726848.10	212, 224	727405	52
726341.60	220	726529.25	205	726780.30	214	726854.25	208	727406	52
726344.25	220	726529.30	205	726780.50	214	726857.25	208	727407	52
726344.30	220	726541.10	208	726780.60	214	726857.50	208	727420	52
726344.50	220	726541.15	208	726783.25	214	726860.25	208	727421	52
726345.30	220	726541.25	208	726784.25	215	726860.50	208	727422	52
726346.25	220	726541.30	208	726785.25	215	726863.25	208	727423	52
726351.25	212	726545.10	213	726785.30	215	726863.50	208	727450	52
726351.30	212	726545.15	213	726785.50	215	726871.15	216	727451	52



728025.20	128	728042.46	129	728543.46	128	729028	61	729228.400	61
728025.30	128	728043.20	129	728544.46	128	729028.400	61	729229	57
728025.40	128	728043.30	129	728545.20	128	729029	57	729229.400	57
728025.46	128	728043.40	129	728545.30	128	729029.400	57	729230	58
728026.20	128	728043.46	129	728545.40	128	729030	58	729230.400	58
728026.30	128	728044.20	129	728545.46	128	729030.400	58	729231	58
728026.40	128	728044.30	129	728546.30	128	729031	58	729231.400	58
728026.46	128	728044.40	129	728546.40	128	729031.400	58	729240	60
728027.46	128	728044.46	129	728550.30	128	729032	57	729240.400	60
728028.20	128	728045.46	129	728550.40	128	729032.400	57	729241	60
728028.30	128	728051.30	128	728552.46	128	729033	57	729241.400	60
728028.40	128	728051.40	128	728553.20	128	729033.400	57	729242	60
728028.46	128	728052.30	128	728553.30	128	729034	61	729242.400	60
728029.20	128	728052.40	128	728553.40	128	729036	58	729401	60
728029.30	128	728053.30	128	728553.46	128	729036.800	58	730001	16
728029.40	128	728053.40	128	729004	59	729037	58	730002	16
728029.46	128	728054.30	128	729004.400	59	729037.800	58	730003	16
728030.46	128	728054.40	128	729005	58	729039	61	730003.250	16
728031.20	128	728055.30	128	729005.400	58	729039.400	61	730003 G	16
728031.30	128	728055.40	128	729006	59	729040	60	730004	16
728031.40	128	728056.30	129	729006.400	59	729040.400	60	730004.250	16
728031.46	128	728056.40	129	729007	58	729041	60	730004 G	16
728032.20	128	728057.30	129	729007.400	58	729041.400	60	730005	16
728032.30	128	728057.40	129	729008	58	729042	60	730005.250	16
728032.40	128	728401.30	129	729008.800	58	729042.400	60	730005 G	16
728032.46	128	728401.40	129	729009	58	729100	63	730007	26
728033.46	128	728403.20	129	729009.800	58	729101	63	730008	16
728034.20	128	728403.30	129	729010	60	729102	63	730009	16
728034.30	128	728403.40	129	729011	60	729204	59	730010	15
728034.40	128	728403.46	129	729012	60	729204.400	59	730011	15
728034.46	128	728404.46	129	729012.400	60	729205	58	730011ASP	43
728035.20	128	728405.20	129	729013	60	729205.400	58	730012	15
728035.30	128	728405.30	129	729013.400	60	729206	59	730012 G	15
728035.40	128	728405.40	129	729014	58	729206.400	59	730013	15
728035.46	128	728405.46	129	729015	58	729207	58	730013.250	15
728036.46	128	728410.30	129	729018	61	729207.400	58	730013ASP	43
728037.20	128	728410.40	129	729018.400	61	729212	60	730013 G	15
728037.30	128	728412.20	129	729019	61	729212.400	60	730014	15
728037.40	128	728412.30	129	729019.400	61	729213	60	730014.250	15
728037.46	128	728412.40	129	729020	57	729213.400	60	730014 G	15
728038.20	128	728412.46	129	729020.400	57	729218	61	730015	15
728038.30	128	728413.46	129	729021	57	729218.400	61	730015.250	15
728038.40	128	728414.20	129	729021.400	57	729219	61	730015ASP	43
728038.46	128	728414.30	129	729022	57	729219.400	61	730015 G	15
728039.46	128	728414.40	129	729022.800	57	729220	57	730016	15
728040.20	129	728414.46	129	729023	57	729220.400	57	730017	25
728040.30	129	728540.20	128	729023.800	57	729221	57	730018	15
728040.40	129	728540.30	128	729024	59	729221.400	57	730020	25
728040.46	129	728540.40	128	729025	59	729226	59	730020 G	25
728041.20	129	728540.46	128	729026	59	729226.400	59	730021	18
728041.30	129	728543.20	128	729026.400	59	729227	59	730022	18
728041.40	129	728543.30	128	729027	59	729227.400	59	730023	18
728041.46	129	728543.40	128	729027.400	59	729228	61	730024	18



Index of catalogue numbers

Appendices

730024 G	18	730108	14	730176	40	730298	17	730446	25
730026	42	730108.250	14	730177	40	730298 G	17	730447	25
730028	16	730108 G	14	730178	40	730299	17	730452	25
730031	22	730109	38	730179	41	730299 G	17	730453	25
730033	22	730110	7	730180	22	730300	17	730455	25
730033.250	22	730111	14	730180 G	22	730300 G	17	730457	26
730033 G	22	730111.AOX	34	730183	41	730301	17	730458	33
730034	42	730111 G	14	730183.12	41	730302	17	730460	27
730041	23	730112	35	730184	41	730310	30	730462	27
730043	23	730117	14	730184.12	41	730315	33	730464	27
730051	23	730118	14	730185	41	730322	29	730466	25
730053	23	730118 G	14	730187	41	730323	29	730467	25
730053 G	23	730119	14	730188	41	730344.30	30	730473	24
730061	21	730119.AOX	34	730189.1	41	730350	42	730474	42
730063	21	730126	26	730189.12	41	730351	42	730475	42
730070	24	730127	26	730191	42	730355	42	730482	27
730070 G	24	730130	16	730192	42	730356	42	730483	27
730071	24	730132	37	730194	41	730360	40	730484	27
730071ASP	43	730132.250	37	730197	7	730365	40	730487	55
730072	24	730134	18	730199	7	730366	41	730487 G	55
730073	24	730135	35	730205	7	730376.30	30	730489	55
730073.250	24	730135.250	35	730206	7	730377	30	730490	7
730073ASP	43	730135 G	35	730207	7	730378	30	730491	7
730073 G	24	730139	25	730208	7	730380	42	730492	7
730075	24	730139 G	25	730209	7	730381	42	730493	7
730075.250	24	730141	15	730212	28	730382	42	730494	7
730075ASP	43	730143	21	730214	24	730384	26	730495	7
730075 G	24	730149	38	730214 G	24	730385	42	730501	55
730076	28	730149.250	38	730217	24	730386	41	730502	55
730077	28	730149 G	38	730221	19	730387	41	730505	55
730077.250	28	730150	40	730223	39	730388	42	730506	55
730078	29	730151	40	730225	19	730389	42	730507	55
730079	29	730152	41	730227	19	730396	30	730508	55
730079.250	29	730153	41	730230	42	730400	16	730509	55
730081	26	730154	41	730233	41	730402	16	730533	38
730082	26	730157	41	730238	26	730403	16	730561	39
730082.250	26	730158	42	730243	41	730404	15	730562	39
730082 G	26	730159	42	730249	36	730405	15	730563	41
730083	21	730160	42	730249.250	36	730406	24	730564	41
730084	21	730161	42	730249 G	36	730409	19	730566	42
730085	37	730162	42	730250	25	730410	19	730585	55
730085.250	37	730163	42	730259	15	730411	21	730586	55
730085 G	37	730164	42	730261	16	730413	22	730601	18
730100	42	730166	34	730269	15	730417	23	730602	16
730101	42	730166 G	34	730275	28	730418	23	730603	22
730102	42	730168	31	730280	14	730420	21	730605	23
730103	42	730168.250	31	730290	7	730421	21	730606	21
730104	42	730169	19	730294	17	730425	28	730607	21
730105	42	730171	42	730295	17	730426	29	730608	24
730106	41	730172	42	730296	17	730429	25	730609	28
730107	24	730173	40	730296 G	17	730442	20	730610	29
730107.250	24	730174	40	730297	17	730443	20	730611	15
730107 G	24	730175	40	730297 G	17	730444	20	730612	16



730613	15	730751	13	730834	49	730974	39	732002	16
730614	21	730752	13	730835	48	730975	39	732012	15
730615	14	730753	13	730836	48	731730	17	732013	15
730616	34	730753 G	13	730837	48	731731	17	732019	42
730618	35	730754	13	730838	48	731732	17	732020	42
730618 G	35	730754.250	13	730855	50	731740	19	732023	18
730619	38	730755	13	730856	50	731741	19	732033	22
730620	35	730755.250	13	730857	50	731801	16	732053	23
730620 G	35	730755 G	13	730858	50	731802	16	732072	24
730622	26	730756	13	730869	51	731803	16	732073	24
730626	22	730757	13	730870	51	731804	15	732083	28
730626 G	22	730758	13	730871	51	731805	15	732088	29
730628	17	730759	13	730872	51	731806	15	732091	25
730629	27	730765	30	730873	51	731808	18	732108	14
730630	27	730767	50	730874	51	731813	22	732130	11
730631	20	730768	50	730880	50	731828	24	732131	11
730640	25	730779	51	730881	50	731829	24	732132	11
730641	25	730781	51	730884	50	731830	24	732168	31
730642	25	730783	51	730885	50	731831	28	732205	25
730651	19	730784	48	730886	50	731832	28	732210	25
730652	19	730786	51	730887	50	731833	28	732295	17
730653	39	730787	51	730888	50	731834	29	732472	13
730653.20	39	730793	51	730890	50	731835	29	732482	27
730660	26	730794	51	730891	50	731836	29	732500	42
730661	13	730798	49	730892	50	731839	14	732501	42
730663	11	730801	49	730895	49	731840	14	732681	32
730666	50	730805	49	730896	49	731841	14	733056.50	236
730667	50	730806	49	730897	49	731844	25	733110.25	226
730680	32	730807	49	730898	49	731845	25	733110.50	226
730681	31	730808	49	730899	49	731848	26	733111.10	224, 226
730682	31	730809	49	730915	50	731849	26	733299.25	226
730683	32	730810	48	730920	51	731851	26	733299.50	226
730684	31	730811	48	730921	51	731852	31	733302.25	236
730685	32	730812	51	730922	51	731853	31	733323.25	236
730686	32	730813	48	730925	49	731854	31	733323.50	236
730690	30	730814	48	730927	49	731860	30	733442.50	226
730692	30	730815	48	730931	11	731861	30	733551.25	226
730693	30	730816	48	730931.250	11	731862	30	735111	74
730710	53	730817	48	730934	11	731863	30	735113	74
730712	53	730818	49	730935	11	731865	30	735114	74
730714	53	730819	49	730936	11	731866	30	735116	74
730716	53	730820	49	730936 G	11	731867	30	735117	74
730718	53	730821	49	730937	11	731868	30	735119	74
730720	53	730822	49	730938	11	731870	30	735120	74
730722	53	730823	49	730938.250	11	731871	30	735121	74
730724	53	730824	49	730938 G	11	731875	30	735123	74
730730	53	730825	49	730939	11	731877	30	735124	74
730732	53	730826	49	730940	11	731883	7	735125	74
730734	53	730827	49	730941	11	731884	7	735126	74
730736	53	730828	49	730970	39	731885	7	735139	74
730738	53	730829	49	730971	39	731886	7	735308.1	74
730740	53	730831	49	730972	39	731887	7	735408	74
730742	53	730833	49	730973	39	731888	7	735434.1	74



Index of catalogue numbers

Appendices

735911	74	738680.100M	32	760079.46	94	760201.46	99	760406.20	97
735913	74	738770.M	63	760080.20	95	760202.20	99	760406.30	97
735920	74	738771.M	63	760080.30	95	760202.30	99	760406.40	97
736400.40	141	738772.M	63	760080.40	95	760202.40	99	760406.46	97
736596.40	141	760001.20	106	760080.46	95	760202.46	99	760410.20	97
736597.100	141	760001.30	106	760081.20	95	760203.20	99	760410.30	97
736598	141	760001.40	106	760081.30	95	760203.30	99	760410.40	97
736599.100	141	760001.46	106	760081.40	95	760203.40	99	760410.46	97
736601	141	760002.20	106	760081.46	95	760203.46	99	760412.20	97
736602.100	141	760002.30	106	760082.20	95	760260.20	99	760412.30	97
738001.025M	16	760002.40	106	760082.30	95	760260.30	99	760412.40	97
738001.100M	16	760002.46	106	760082.40	95	760260.40	99	760412.46	97
738011.025M	15	760004.20	106	760082.46	95	760260.46	99	760413.20	97
738011.050M	15	760004.30	106	760083.20	95	760261.20	99	760413.30	97
738011.100M	15	760004.40	106	760083.30	95	760261.30	99	760413.40	97
738021.100M	18	760004.46	106	760083.40	95	760261.40	99	760413.46	97
738031.100M	22	760007.40	107	760083.46	95	760261.46	99	760414.20	97
738051.100M	23	760007.46	107	760100.20	95	760262.20	99	760414.30	97
738071.100M	24	760008.46	106	760100.30	95	760262.30	99	760414.40	97
738101.100M	29	760012.46	107	760100.40	95	760262.40	99	760414.46	97
738111.100M	14	760050.20	106	760100.46	95	760262.46	99	760700.20	106
738131.150M	55	760050.30	106	760101.20	95	760263.20	99	760700.30	106
738141.100M	28	760050.40	106	760101.30	95	760263.30	99	760700.40	106
738161.100M	31	760050.46	106	760101.40	95	760263.40	99	760700.46	106
738251.100M	25	760051.20	106	760101.46	95	760263.46	99	760701.20	106
738252.100M	25	760051.30	106	760102.20	95	760271.20	99	760701.30	106
738253.100M	25	760051.40	106	760102.30	95	760271.30	99	760701.40	106
738294.100M	17	760051.46	106	760102.40	95	760271.40	99	760701.46	106
738520.025M	13	760052.20	106	760102.46	95	760271.46	99	760702.46	106
738520.050M	13	760052.30	106	760103.20	95	760272.20	99	760703.20	106
738520.100M	13	760052.40	106	760103.30	95	760272.30	99	760703.30	106
738530.025M	11	760052.46	106	760103.40	95	760272.40	99	760703.40	106
738530.050M	11	760053.46	106	760103.46	95	760272.46	99	760703.46	106
738530.100M	11	760060.20	106	760150.40	103	760400.20	97	760750.20	95
738630.M	45	760060.30	106	760150.46	103	760400.30	97	760750.30	95
738630.M	63	760060.40	106	760151.40	103	760400.40	97	760750.40	95
738637	45	760060.46	106	760151.46	103	760400.46	97	760750.46	95
738638	45	760061.46	106	760152.40	103	760402.20	97	760751.20	95
738639.M	45	760062.20	106	760152.46	103	760402.30	97	760751.30	95
738645	45	760062.30	106	760153.40	103	760402.40	97	760751.40	95
738650	45	760062.40	106	760153.46	103	760402.46	97	760751.46	95
738651	45	760062.46	106	760154.46	103	760403.20	97	760752.20	95
738652	45	760063.20	106	760156.40	103	760403.30	97	760752.30	95
738655.2M	63	760063.30	106	760156.46	103	760403.40	97	760752.40	95
738655.M	63	760063.40	106	760157.30	103	760403.46	97	760752.46	95
738656.M	63	760063.46	106	760159.20	103	760404.20	97	760753.20	95
738657.M	63	760078.20	94	760200.20	99	760404.30	97	760753.30	95
738658.M	63	760078.30	94	760200.30	99	760404.40	97	760753.40	95
738659.M	63	760078.40	94	760200.40	99	760404.46	97	760753.46	95
738660.M	63	760078.46	94	760200.46	99	760405.20	97	760755.20	95
738661.M	63	760079.20	94	760201.20	99	760405.30	97	760755.30	95
738662.M	63	760079.30	94	760201.30	99	760405.40	97	760755.40	95
738663.M	63	760079.40	94	760201.40	99	760405.46	97	760755.46	95



760756.20	95	761005.30	106	761315.46	97	761554.40	101	762003.210	151
760756.30	95	761005.30	106	761317.20	97	761554.46	101	762007.100	151
760756.40	95	761005.30	106	761317.30	97	761556.20	101	762010.100	151
760756.46	95	761005.40	106	761317.40	97	761556.30	101	762010.210	151
760800.20	101	761005.40	106	761317.46	97	761556.40	101	762010.320	151
760800.30	101	761005.40	106	761350.20	106	761556.46	101	762010.400	151
760800.40	101	761005.40	106	761350.30	106	761557.30	101	762010.500	151
760800.46	101	761006.46	106	761350.40	106	761557.40	101	762011.100	151
760801.20	101	761007.40	107	761350.46	106	761558.46	101	762011.210	151
760801.30	101	761012.30	106	761380.46	106	761701.20	106	762022.100	151
760801.40	101	761012.40	106	761400.20	106	761701.30	106	762022.160	151
760801.46	101	761015.20	106	761400.30	106	761701.40	106	762022.210	151
760802.20	101	761015.30	106	761400.40	106	761701.46	106	762022.320	151
760802.30	101	761015.40	106	761400.46	106	761702.46	106	762022.400	151
760802.40	101	761015.46	106	761419.40	103	761703.20	106	762022.500	151
760802.46	101	761016.46	106	761420.40	103	761703.30	106	762022.80	151
760803.20	101	761017.20	106	761421.40	103	761703.40	106	762047.100	151
760803.30	101	761017.30	106	761421.46	103	761703.46	106	762047.210	151
760803.40	101	761017.40	106	761422.40	103	761704.30	106	762047.400	151
760803.46	101	761017.46	106	761422.46	103	761704.40	106	762048.100	151
760805.20	101	761029.46	107	761423.40	103	761751.20	95	762048.210	151
760805.30	101	761030.46	107	761423.46	103	761751.30	95	762057.400	151
760805.40	101	761050.46	107	761424.40	103	761751.40	95	762057.500	151
760805.46	101	761051.40	107	761424.46	103	761751.46	95	762062.100	151
760806.20	101	761051.46	107	761430.30	103	761752.46	95	762062.160	151
760806.30	101	761053.40	107	761430.40	103	761753.20	95	762062.210	151
760806.40	101	761055.40	107	761452.20	95	761753.30	95	762062.320	151
760806.46	101	761100.30	106	761452.30	95	761753.40	95	762062.80	151
760807.20	101	761100.40	106	761452.40	95	761753.46	95	762068.100	151
760807.30	101	761124.30	95	761452.46	95	761754.30	95	762072.100	151
760807.40	101	761124.40	95	761453.20	95	761754.40	95	762072.210	151
760807.46	101	761125.30	95	761453.30	95	761800.30	99	762103.100	150
760808.20	101	761125.40	95	761453.40	95	761800.40	99	762103.210	150
760808.30	101	761300.30	97	761453.46	95	761802.20	99	762113.100	150
760808.40	101	761300.40	97	761454.46	95	761802.30	99	762113.160	150
760808.46	101	761304.20	97	761500.20	95	761802.40	99	762113.210	150
760821.20	101	761304.30	97	761500.30	95	761802.46	99	762113.320	150
760821.30	101	761304.40	97	761500.40	95	761803.20	99	762113.400	150
760821.40	101	761304.46	97	761500.46	95	761803.30	99	762113.80	150
760821.46	101	761305.46	97	761501.20	95	761803.40	99	762250.400	150
760822.20	101	761307.20	97	761501.30	95	761803.46	99	762272.100	150
760822.30	101	761307.30	97	761501.40	95	761850.20	99	762272.160	150
760822.40	101	761307.40	97	761501.46	95	761850.30	99	762272.210	150
760822.46	101	761307.46	97	761504.46	95	761850.40	99	762272.320	150
761003.20	106	761310.30	97	761550.30	101	761850.46	99	762272.400	150
761003.30	106	761310.40	97	761550.40	101	761851.46	99	762272.80	150
761003.40	106	761314.20	97	761552.20	101	761852.20	99	762372.100	150
761003.46	106	761314.30	97	761552.30	101	761852.30	99	762372.210	150
761004.20	106	761314.40	97	761552.40	101	761852.40	99	762373.100	150
761004.30	106	761314.46	97	761552.46	101	761852.46	99	762373.160	150
761004.40	106	761315.20	97	761553.46	101	761854.30	99	762373.210	150
761004.46	106	761315.30	97	761554.20	101	761854.40	99	762373.320	150
761005.30	106	761315.40	97	761554.30	101	762003.100	151	762373.400	150



Index of catalogue numbers

Appendices

762373.80	150	806023	190	810054	190	814000	192	815030.1	166
762403.100	150	807011	185	810063	189	814001	192	815030.25	166
762403.160	150	807013	185	810073	189	814002	192	815030.5	166
762403.210	150	807021	185	810074	189	814003	192	815050.1	167
762403.320	150	807023	185	810076	190	814011	192	815050.25	167
762403.400	150	807033	185	811011	179	814012	192	815050.5	167
762403.80	150	808011	186	811012	179	814013	192	815060.1	167
762404.210	150	808012	186	811013	179	814019	194	815060.25	167
801011	186	808013	186	811021	179	814021	194	815060.5	167
801012	186	808021	186	811022	179	814022	194	815070.1	167
801013	186	808022	186	811023	179	814023	194	815300.1	166
801022	186	808023	186	811032	177	814024	194	815300.25	166
801023	186	808032	186	811042	177	814025	194	815300.5	166
801033	187	808033	186	811050	190	814026	194	815310.1	166
801052	187	808042	186	811051	190	814027	194	815310.25	166
801053	187	808043	186	811052	180	814028	194	815310.5	166
801054	187	808053	186	811054	180	814029	192	815320.1	166
801062	187	808063	186	811055	188	814030	194	815320.25	166
801063	187	808072	186	811056	188	814100	192	815320.5	166
801064	187	808073	186	811057	188	814101	194	815330.1	166
801072	187	808082	186	811058	188	814102	194	815330.25	166
801073	187	808083	186	811059	188	814103	194	815330.5	166
801074	187	808113	187	811062	180	814104	194	815340.1	166
801084	187	808123	187	811064	180	814200	193	815340.5	166
801112	186	809011	176	811071	181	814201	193	815350.1	166
801113	186	809012	176	811072	181	814202	193	815350.25	166
801122	186	809013	176	811073	181	814203	194	815350.5	166
801123	186	809017	176	811074	181	814204	193	815360.1	166
802012	185	809017.200	176	811075	181	814205	193	815360.25	166
802013	185	809020	176	811080	181	814206	194	815360.5	166
802021	185	809021	176	811081	181	814300	193	815380.1	166
802022	185	809022	176	811082	181	814301	193	815380.25	166
802023	185	809023	176	811101	179	814302	194	815380.5	166
803012	188	809027	176	811103	179	814400	193	815381.1	166
803013	188	809027.200	176	811109	183	814401	194	815381.25	166
803022	188	809028.100	176	811111	183	814402	194	815381.5	166
803023	188	809033	189	811112	183	814403	194	815390.1	166
804012	177	809043	189	811115	182	814404	194	815390.25	166
804013	177	809051	176	811116	182	814405	193	815390.5	166
804022	177	809053	176	811120	184	814406	193	815400.1	166
804023	177	809061	176	811121	184	814407	193	815400.25	166
805012	176	809063	176	812003	176	814500	193	815400.5	166
805013	176	809073	176	812004	176	814919	194	815410.1	166
805014	176	809083	176	812005	176	814920	194	815430.1	166
805017	176	809121	176	812005.200	176	814921	194	815510.1	167
805021	176	809122	176	812006	176	814922	194	815510.5	167
805022	176	809123	176	812007	176	814923	194	815520.1	167
805023	176	810012	177	812008	176	815010.1	166	815520.5	167
805024	176	810013	177	812010	179	815010.25	166	815530.1	167
805032	176	810022	177	812011	179	815010.5	166	815530.5	167
805901	176	810023	177	812012	179	815020.1	166	815540.1	167
805902	176	810043	190	812013	179	815020.25	166	815540.5	167
806013	190	810053	190	812014	179	815020.5	166	815550.1	167



815550.5	167	816270.1	196	817002	191	818145	181	821010.200	175
815560.1	167	816270.5	196	817003	191	818146	181	821015	175
815560.5	167	816300.1	196	817004	191	818147	181	821020	175
815600.1	167	816300.5	196	817005	191	818152	181	821025	175
815600.5	167	816310.1	195	817006	191	818153	186	821030	175
815610.1	167	816310.5	195	817007	191	818154	186	821040	175
815620.1	167	816320.1	195	817008	191	818155	186	821040.200	175
815620.5	167	816320.5	195	818013	185	818156	186	821050	175
815650.1	166	816330.1	195	818023	185	818157	186	821060	175
815650.25	166	816330.5	195	818024	185	818160	176	821100	178
815650.5	166	816340.1	195	818030.20	176	818161	176	821110	178
815710.1	167	816340.5	195	818032	176	818162	176	821120	178
815710.5	167	816380.1	195	818033	176	818163	176	821130	178
816010.1	195	816380.5	195	818129	176	818170	181	821140	178
816010.5	195	816400.1	195	818130.20	176	818171	181	821150	178
816020.1	195	816400.5	195	818131	176	818180	184		
816020.5	195	816410.1	195	818132	176	818181	184		
816030.1	195	816410.5	195	818133	176	818182	183		
816030.5	195	816610.1	196	818140	179	818183	183		
816250.1	196	816620.1	196	818141	179	818184	182		
816250.5	196	816710.01	196	818142	179	818185	182		
816260.1	196	816720.01	196	818143	179	821005	175		
816260.5	196	817001	191	818144	181	821010	175		



MACHEREY-NAGEL trademarks

ALUGRAM	coated aluminium sheets for TLC
CHROMABOND	columns for solid phase extraction (SPE)
CHROMAFIL	syringe filters (membrane filters)
CHROMAFIX	cartridges for solid phase extraction (SPE)
ChromCart	cartridge system for HPLC
LIPODEX	fused silica capillaries with cyclodextrin phases for GC enantiomer separation
NUCLEODUR	spherical high purity silica for HPLC
NUCLEOGEL	HPLC polymer-based columns
NUCLEOGEN	HPLC ion-exchange columns for nucleic acid analysis
NUCLEOSIL	spherical standard silica for HPLC
OPTIMA	high performance fused silica capillary columns with immobilised phases
PERMABOND	fused silica capillaries with immobilised phases
POLYGOSIL	irregular silica for HPLC
POLYGRAM	coated polyester sheets for TLC

Trademarks of other companies

Registered trademarks (®)

Accubond	Agilent Technologies Inc. (USA)	Microlab	Hamilton Co. (USA)
Acquity	Waters Corp. (USA)	MultiProbe	PerkinElmer Inc. (USA)
Alliance	Waters Corp. (USA)	O ₂ -free	Air Liquide S.A. (France)
Aqua	Phenomenex Inc. (USA)	Oasis	Waters Corp. (USA)
AR-Glas	Schott AG (Germany)	Oxisorb	Messer Group GmbH (Germany)
Atlantis	Waters Corp. (USA)	Plexiglas	Röhm GmbH (Germany)
AutoTrace	Caliper Life Sciences Inc. (USA)	Purospher	Merck KGaA (Germany)
AVICEL	FMC Corp. (USA)	Pyrex	Corning Inc. (USA)
Biomex	Beckman Coulter Inc. (USA)	Quadra 3	Tomtec Inc. (USA)
Biotage	Biotage AB (Sweden)	RapidTrace	Caliper Life Sciences Inc. (USA)
Bond Elut	Varian Inc. (USA)	Rtx	Restek Corp. (USA)
Celite	Manville Corp. (USA)	Sep-Pak	Waters Corp. (USA)
Cheminert	Valco Instruments Co. Inc. / VICI AG	Sepharose	Pharmacia Biotech AB (Sweden)
ChiralCel	Daicel Chemical Industries Ltd. (Japan)	Spherisorb	Waters Corp. (USA)
ChiralPak	Daicel Chemical Industries Ltd. (Japan)	Stabilwax	Restek Corp. (USA)
Clean Screen	UCT United Chemical Technologies Inc. (USA)	Styre Screen	UCT United Chemical Technologies Inc. (USA)
Companion	Teledyne Isco Inc. (USA)	Superspher	Merck KGaA (Germany)
Discovery	Sigma-Aldrich Co. (USA)	Swagelok	Crawford Fitting Co. (USA)
Duran	Schott AG (Germany)	Symmetry	Waters Corp. (USA)
Eurocel	Knauer GmbH (Germany)	Teflon	E. I. du Pont de Nemours & Co. (USA)
Fiolax	Schott AG (Germany)	Tefzel	E. I. du Pont de Nemours & Co. (USA)
Florisil	U.S. Silica Co.	Vespel	E. I. du Pont de Nemours & Co. (USA)
Hypersil	Thermo Fisher Scientific Inc. (USA)	VICI	Valco Instruments Co. Inc. / VICI AG
HyPurity	Thermo Fisher Scientific Inc. (USA)	Viton	DuPont Performance Elastomers (USA)
Inertsil	GL Sciences (Japan)	Xterra	Waters Corp. (USA)
Isco	Teledyne Isco Inc. (USA)	YMC	YMC Co. Ltd. (Japan)
Isolute	Biotage AB (Sweden)	Zorbax	Agilent Technologies Inc. (USA)
Kromasil	Eka Chemicals AB (Sweden)	Zymark	Caliper Life Sciences Inc. (USA)
LiChrolut	Merck KGaA (Germany)	Zymate	Caliper Life Sciences Inc. (USA)
LiChrospher	Merck KGaA (Germany)		
Luna	Phenomenex Inc. (USA)		



Common law trademarks (™)

AmyCoat	Eka Chemicals AB (Sweden)	Genesis	Tecan Group AG
ASPEC	Gilson Inc. (USA)	Nukol	Sigma-Aldrich Co. (USA)
AT	Alltech Associates Inc. (USA)	PEEK	Victrex plc. (UK)
Bakerbond	Mallinckrodt Baker Inc. (USA)	Porapak	Waters Corp. (USA)
Benchmate	Zymark Corp. (USA)	SPB	Sigma-Aldrich Co. (USA)
Carbowax	Union Carbide Corp. (USA)	Strata	Phenomenex Inc. (USA)
CelluCoat	Eka Chemicals AB (Sweden)	Supelcosil	Sigma-Aldrich Co. (USA)
DB	J&W Scientific Inc. (USA)	Supelcowax	Sigma-Aldrich Co. (USA)
Equity	Sigma-Aldrich Co. (USA)	SymmetryShield	Waters Corp. (USA)
FlashMaster	Biotage AB (Sweden)	Synergi	Phenomenex Inc. (USA)
Flash 12i	Biotage AB (Sweden)	TPX	Mitsui Chemicals Ltd. (Japan)
Focus	Varian Inc. (USA)	WISP	Waters Corp. (USA)

Disclaimer

All used names and denotations can be brands, trademarks or registered labels of their respective owner – also if they do not have a special denotation. To mention products and brands is only a kind of information, i.e. it does not offend against trademarks and brands and can not be seen as a kind of recommendation or assessment.

Liability

MACHEREY–NAGEL products are intended for general laboratory use only. They are not suited for clinical use (diagnostic, therapeutic or prognostic). MACHEREY–NAGEL does not assume any responsibility for damages due to improper application of our products or due to application of our products in other fields of application. The user has to ensure that the products used are suitable for the planned applications. We do not warrant the reproducibility of published applications.

Application on the human body is strictly forbidden. The user is liable of all damages resulting from such application.

MACHEREY–NAGEL products are suited for qualified personnel only.





