CHROMATOGRAPHY

HPLC

NUCLEOSIL® · the original

Find what you are looking for!

Distribútor pre SR:
AZ CHROM s.r.o., Robotnícka 10, 831 03 Bratislava
Tel. 0907 244526 azetchrom@hplc.sk, www.azetchrom.sk

MACHEREY-NAGEL

MN Since 1911

NUCLEOSIL®
manufacturer-packed columns from MACHEREY-NAGEL
Highest quality in HPLC for over 40 years

You probably know that

- NUCLEOSIL® was one of the first spherical silicas for HPLC
- NUCLEOSIL® comes in numerous different modifications, particle sizes and pore sizes
- NUCLEOSIL® is renowned around the globe due to its versatile applicability

Dr. Helmut Riering, Senior Scientist
Separation Science and Analytics

Do you also know that

- NUCLEOSIL® was originally developed by MACHEREY-NAGEL in 1974?
- NUCLEOSIL® is still manufactured exclusively by MACHEREY-NAGEL in Germany?
- NUCLEOSIL® is still one of the most used HPLC silicas in quality control around the globe?

Achim Kippels, Sorbent Synthesis
and Scale-up Production

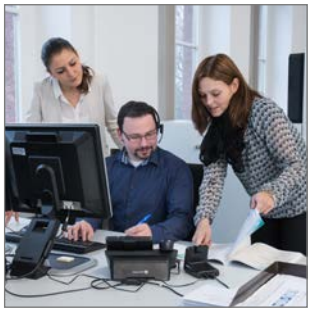
Buy NUCLEOSIL® directly from MACHEREY-NAGEL, the silica specialists who invented it.

Thus, you will receive

- A finely tuned portfolio of NUCLEOSIL® phases for all your individual applications
- Expert know-how and highly trained staff for unrivaled customer support
- Decades of experience in manufacturing and packing columns for safe and reliable results
- A wide variety of NUCLEOSIL® – and other – applications
  in our free-of-charge application database (***www.mn-net.com/apps***)

Dr. Simon Forster, Stephan Frech
R&D Surface Chemistries

"For more than forty years it's our main goal to ensure highest quality standards for our NUCLEOSIL® and NUCLEODUR® columns. Reproducibility, column life-time and excellent performance are our ambition."



Julia Schweigert, Heike Heyne
Andreas Bohne
Customer Service / Order Processing

Monika Kosiahn, Maria Thelen
Sieglinde Harth
Column Production / Quality Control

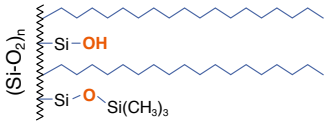
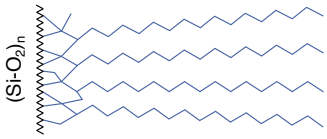
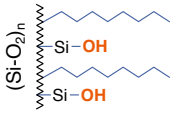
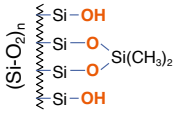
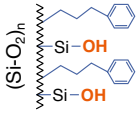
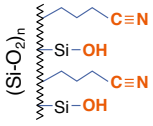
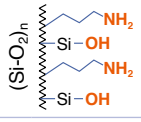
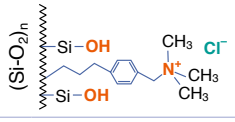
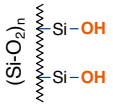
Dr. Hans Rainer Wollseifen
Torsten Kretschmer
Application Development

NUCLEOSIL®

Selection of most popular phases

We want our customers to achieve the best possible results, hence we offer a wide variety of chemistries to the standard NUCLEOSIL® silica. The following table gives an overview of the most well known and heavily used NUCLEOSIL® phases.

For additional modifications, please visit ***www.mn-net.com/NUCLEOSIL***.

Phase	Modification	Stability	Structure	Separation principle
NUCLEOSIL® RP phases				
C_{18}	Octadecyl phase, medium density modification, endcapping 15 % C · USP L1	pH 2–8		hydrophobic (van der Waals) interactions slight residual silanol interactions
C_{18} HD	Octadecyl phase, high density monomeric modification, endcapping 20 % C · USP L1	pH 2–9		hydrophobic (van der Waals) interactions
C_{18} AB	Octadecyl phase, special crosslinked modification, endcapping 25 % C · USP L1	pH 1–9		steric interactions and hydrophobic interactions
C_8	Octyl phase, no endcapping 8.5 % C · USP L7	pH 2–8		hydrophobic (van der Waals) interactions noticeable residual silanol interactions
C_2	Dimethyl phase 3.5 % C· USP L16	pH 2–8		hydrophobic (van der Waals) interactions noticeable residual silanol interactions
C_6H_5	Phenyl phase, no endcapping 8 % C · USP L11	pH 2–8		π–π interactions and hydrophobic interactions noticeable residual silanol interactions
Polar NUCLEOSIL® phases and NUCLEOSIL® ion exchangers				
CN / CN-RP	Cyano (nitrile) phase USP L10	pH 2–8		π–π interactions, polar interactions and hydrophobic interactions
NH_2 / NH_2-RP	Amino USP L8	pH 2–8		polar and hydrophobic interactions, weak ion exchange interactions
SA	Sulfonic acid, strongly acid cation exchanger (SCX) · USP L9	pH 2–8		strong ion exchange interactions
SB	Quaternary ammonium, strongly basic anion exchanger (SAX) · USP L14	pH 2–8		strong ion exchange interactions
SiOH	Unmodified spherical silica USP L3	pH 2–8		polar interactions

Selected NUCLEOSIL® columns

When quality counts, trust the original.

In order to facilitate your purchase, we have compiled a selection of our most common NUCLEOSIL® columns.
If you require different variations, please do not hesitate to contact us at info@mn-net.com.

Columns with selected RP phases

HPLC phase	ID	Length [mm] 100	125	150	250	EC guard columns*
NUCLEOSIL® 100-3 C_{18}, particle size 3 µm, pore size 100 Å	4 mm		720150.40		720133.40	721022.30
	4.6 mm	720841.46	720150.46	720949.46	720133.46	721022.30
NUCLEOSIL® 100-5 C_{18}, particle size 5 µm, pore size 100 Å	2 mm			720120.20		721074.20
	3 mm		720002.30		720014.30	721074.30
	4 mm	720141.40	720002.40	720120.40	720014.40	721074.30
	4.6 mm	720141.46	720002.46	720120.46	720014.46	721074.30
NUCLEOSIL® 100-7 C_{18}, particle size 7 µm, pore size 100 Å	4 mm				720018.40	721005.30
	4.6 mm		720951.46	720110.46		721005.30
NUCLEOSIL® 100-10 C_{18}, particle size 10 µm, pore size 100 Å	4 mm				720023.40	721181.30
	4.6 mm				720023.46	721181.30
NUCLEOSIL® 120-3 C_{18}, particle size 3 µm, pore size 120 Å	4.6 mm	720149.46	720040.46			721075.30
NUCLEOSIL® 120-5 C_{18}, particle size 5 µm, pore size 120 Å	4 mm				720041.40	721070.30
	4.6 mm				720041.46	721070.30
NUCLEOSIL® 100-5 C_{18} HD, particle size 5 µm, pore size 100 Å	4 mm				720280.40	721072.30
	4.6 mm				720280.46	721072.30
NUCLEOSIL® 100-5 C_{18} AB, particle size 5 µm, pore size 100 Å	3 mm				720936.30	721073.30
	4.6 mm				720936.46	721073.30
NUCLEOSIL® 100-5 C_8, particle size 5 µm, pore size 100 Å	4 mm		720001.40		720013.40	721194.30
	4.6 mm			720990.46	720013.46	721194.30
NUCLEOSIL® 100-7 C_2, particle size 7 µm, pore size 100 Å	4.6 mm				720089.46	721030.30
NUCLEOSIL 100-5 C_6H_5, particle size 5 µm, pore size 100 Å	4.6 mm				720956.46	721137.30

Columns with selected polar phases

HPLC phase	ID	Length 250 mm	EC guard columns*
NUCLEOSIL® 100-5 CN, particle size 5 µm, pore size 100 Å	4 mm	720090.40	721078.30
	4.6 mm	720090.46	721078.30
NUCLEOSIL® 100-10 CN, particle size 10 µm, pore size 100 Å	4 mm	720024.40	721942.30
	4.6 mm	720024.46	721942.30
NUCLEOSIL® 100-5 CN-RP, particle size 5 µm, pore size 100 Å	4.6 mm	720205.46	721039.30
NUCLEOSIL® 100-5 NH_2, particle size 5 µm, pore size 100 Å	4.6 mm	720095.46	721020.30
NUCLEOSIL® 100-5 SA, particle size 5 µm, pore size 100 Å	4.6 mm	720097.46	721024.30
NUCLEOSIL® 100-10 SA, particle size 10 µm, pore size 100 Å	4.6 mm	720028.46	721163.30
NUCLEOSIL® 100-5, particle size 5 µm, pore size 100 Å	4.6 mm	720099.46	721518.30

* Column Protection System required (REF 718966, see next page)

Other NUCLEOSIL® phases and other column dimensions are available on request.

A global network of subsidiaries and distributors in 150 countries ensures the availability of original manufacturer-packed NUCLEOSIL® columns all over the world.