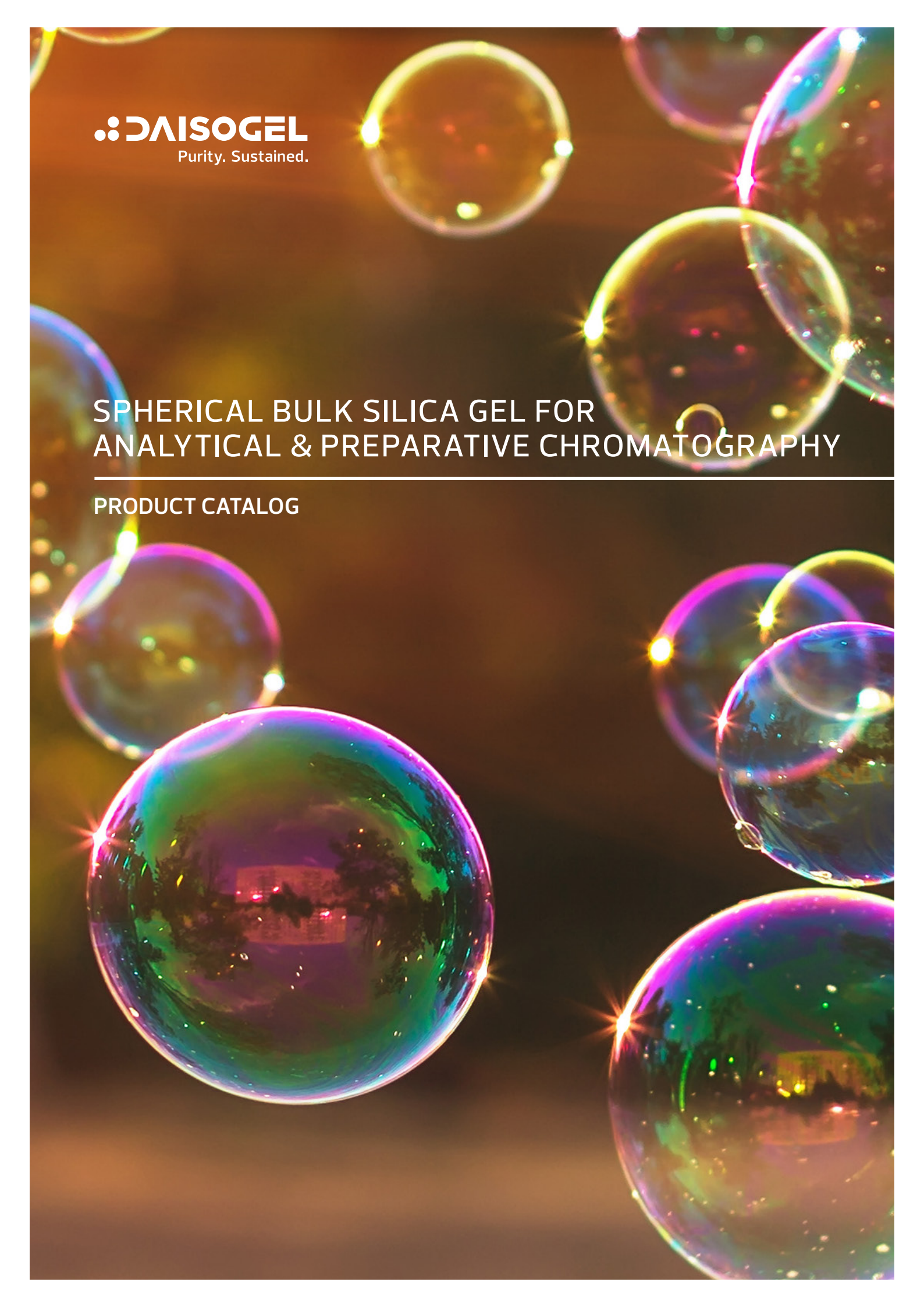




DAISO GEL
Purity. Sustained.

SPHERICAL BULK SILICA GEL FOR ANALYTICAL & PREPARATIVE CHROMATOGRAPHY

PRODUCT CATALOG

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1.0 INTRODUCTION



ABOUT DAISOGEL

DAISOGEL is a leading bulk silica gel used in the chromatographic analysis and purification of active pharmaceutical ingredients and other high-value substances. It falls within the Pharmaceutical Related business of our parent company OSAKA SODA Co., Ltd.

DAISOGEL is proudly made in Japan under the direction of our dedicated manufacturing team at our Amagaski factory outside of Osaka.

Our products are manufactured under ISO 9001 controlled conditions using our leading-edge sol-gel method with GMP compliance based on ICH-Q7A.

Our superior manufacturing standards guarantee DAISOGEL is produced with the highest quality and purity to meet and exceed expectations of any major pharmaceutical company audit worldwide.

We have FDA Drug Master File registration for the following top-selling DAISOGEL phases:

- **File# 23227 for DAISOGEL ODS series**
- **File# 22317 for DAISOGEL C8 series**
- **File# 29201 for DAISOGEL C4 series**

Regulatory Support Files are also available upon request.

OUR COMMITMENT

Our quality is paramount in providing a consistent product to you. With locations in Japan, the US, and Europe, we also pride ourselves in our deep technical support built from over 40 years of chromatography experience.

We look forward to work alongside you to optimize your purification process with reliable products and support that will solve problems today and endure into the future, as embodied in our three core principles:



CONSISTENCY



QUALITY



SUSTAINABILITY

Our superior manufacturing standards guarantee DAISOGEL is produced with the highest quality and purity to meet and exceed expectations of any major pharmaceutical company audit worldwide.



PURITY. SUSTAINED.

Since the launch of DAISOGEL in 1992, we have always strived to provide our customers a family of lasting silica gel products with the quality and performance required for successful chromatographic purification of their life-saving and high-value therapeutics.

We understand our customers' expectations for us to provide the highest performance chromatographic silica gels with utmost quality control that are supplied and supported in a lasting, sustainable manner.

You deserve the highest quality silica gel that translates into the best value for your process. A silica gel that is readily available, with technical support specialists that go above and beyond, no matter where in the world your purification needs may be.

Purity. Sustained.



2.0 C18 PHASES



OUR PREMIUM PHASE

BULK SILICA: BONDED PHASE C18

Our newest ODS phase, the PK Series is a **premium** product that has been holistically designed for optimized purification of recombinant peptides with enhanced alkaline durability, mechanical strength, and loadability.

The PK Series bare silica experienced 15% fewer broken particles than the competitor during a dry silica compression stress test.

18.0%
CARBON LOADING

0.9 mL/g
PORE VOLUME

320 m²/g
SURFACE AREA

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-100-8-ODS-PK	100	8	0.9	320	18.0
SP-100-10-ODS-PK	100	10	0.9	320	18.0



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HIGH SURFACE AREA PHASE

BULK SILICA: BONDED PHASE C18

Ideal for small molecules or synthetic peptides, the ultra-high purity P Series ODS phase offers **exceptionally high surface area** and high loadability for superior performance for both hydrophilic and hydrophobic compounds.

The "P" is a reference to our "ultra high purity" grade of bare silica gel, with a specification of less than 10 ppm of Al, Fe, Ti, and Zr metal impurities.

17.0%
CARBON LOADING

1.1 mL/g
PORE VOLUME

450 m²/g
SURFACE AREA

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-100-3-ODS-P	100	3	1.1	450	17.0
SP-100-5-ODS-P	100	5	1.1	450	17.0
SP-100-8-ODS-P	100	8	1.1	450	17.0
SP-100-10-ODS-P	100	10	1.1	450	17.0
SP-100-15-ODS-P	100	15	1.1	450	17.0



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HIGHEST CARBON CONTENT PHASE

BULK SILICA: BONDED PHASE C18

The HP Series ODS phase combines our **highest carbon loading** of 24% with advanced end capping technology to allow for use in applications covering a wide pH range.

HP stands for "High Performance", as this series can overcome your extremely difficult separation challenges.

24.0%

CARBON LOADING

1.1 mL/g

PORE VOLUME

450 m²/g

SURFACE AREA

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-100-3-ODS-HP	100	3	1.1	450	24.0
SP-100-5-ODS-HP	100	5	1.1	450	24.0
SP-100-8-ODS-HP	100	8	1.1	450	24.0
SP-100-10-ODS-HP	100	10	1.1	450	24.0
SP-100-15-ODS-HP	100	15	1.1	450	24.0



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MOST POPULAR PHASE

BULK SILICA: BONDED PHASE C18

The RPS Series ODS is our **standard and most popular** C18 phase. With high acidic resistance, it is the ideal choice for a wide variety of compounds, including small peptides, oligonucleotides, organic acids, and cannabinoids.

For analytical high-speed applications, 200 Å phases offer a good compromise between surface area, separation speed, and solvent consumption.

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-120-3-ODS-RPS	120	3	1.0	300	17.0
SP-120-5-ODS-RPS	120	5	1.0	300	17.0
SP-120-10-ODS-RPS	120	10	1.0	300	17.0
SP-120-15-ODS-RPS	120	15	1.0	300	17.0
SP-120-20-ODS-RPS	120	20	1.0	300	17.0
SP-120-40-ODS-RPS	120	40	1.0	300	17.0
SP-120-50-ODS-RPS	120	50	1.0	300	17.0
SP-200-3-ODS-RPS	200	3	1.1	200	12.0
SP-200-5-ODS-RPS	200	5	1.1	200	12.0
SP-200-10-ODS-RPS	200	10	1.1	200	12.0
SP-200-15-ODS-RPS	200	15	1.1	200	12.0



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ORDERING INFORMATION (CONTINUED)

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-200-20-ODS-RPS	200	20	1.1	200	12.0
SP-200-40-ODS-RPS	200	40	1.1	200	12.0
SP-200-50-ODS-RPS	200	50	1.1	200	12.0
SP-300-3-ODS-RPS	300	3	0.9	100	7.0
SP-300-5-ODS-RPS	300	5	0.9	100	7.0
SP-300-10-ODS-RPS	300	10	0.9	100	7.0
SP-300-15-ODS-RPS	300	15	0.9	100	7.0
SP-300-20-ODS-RPS	300	20	0.9	100	7.0
SP-300-40-ODS-RPS	300	40	0.9	100	7.0
SP-300-50-ODS-RPS	300	50	0.9	100	7.0



LOW CARBON PHASE

BULK SILICA: BONDED PHASE C18

With its low carbon content of 10–15%, the unique and aqueous-friendly BP Series ODS is designed to provide enhanced selectivity for **hydrophilic and polar compounds**, such as peptides, nucleic acids, organic acids, and sugars.

BP Series ODS phases show stable baselines and high sensitivity even under neutral pH conditions without buffer or counter-ion additives, making them especially suited for techniques like LC-MS.

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-120-3-ODS-BP	120	3	1.0	300	15.0
SP-120-5-ODS-BP	120	5	1.0	300	15.0
SP-120-10-ODS-BP	120	10	1.0	300	15.0
SP-120-15-ODS-BP	120	15	1.0	300	15.0
SP-120-20-ODS-BP	120	20	1.0	300	15.0
SP-120-40-ODS-B	120	40	1.0	300	15.0
SP-120-50-ODS-B	120	50	1.0	300	15.0
SP-200-3-ODS-BP	200	3	1.1	200	10.0
SP-200-5-ODS-BP	200	5	1.1	200	10.0
SP-200-10-ODS-BP	200	10	1.1	200	10.0
SP-200-15-ODS-BP	200	15	1.1	200	10.0
SP-200-20-ODS-BP	200	20	1.1	200	10.0
SP-200-40-ODS-B	200	40	1.1	200	10.0
SP-200-50-ODS-B	200	50	1.1	200	10.0



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OUR PREMIUM PHASE

BULK SILICA: BONDED PHASE C18

The ODS-BIO Series is suitable for purification of small peptides, microbial proteins (insulin), and oligonucleotides with **wide pH range** applications.

BIO Series ODS phase is recommended as your first choice when screening unknown mid or large MW compounds. Move on to C8 or C4 phases if less retention is required.

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-120-5-ODS-BIO	120	5	1.0	300	20.0
SP-120-10-ODS-BIO	120	10	1.0	300	20.0
SP-120-15-ODS-BIO	120	15	1.0	300	20.0
SP-120-20-ODS-BIO	120	20	1.0	300	20.0
SP-200-5-ODS-BIO	200	5	1.1	200	15.0
SP-200-10-ODS-BIO	200	10	1.1	200	15.0
SP-200-15-ODS-BIO	200	15	1.1	200	15.0
SP-200-20-ODS-BIO	200	20	1.1	200	15.0
SP-300-5-ODS-BIO	300	5	0.9	100	8.0
SP-300-10-ODS-BIO	300	10	0.9	100	8.0
SP-300-15-ODS-BIO	300	15	0.9	100	8.0
SP-300-20-ODS-BIO	300	20	0.9	100	8.0



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3.0 C8 PHASES



OUR PREMIUM PHASE

BULK SILICA: BONDED PHASE C8

Our newest C8 phase, the PK Series is a **premium** product that has been holistically designed for optimized purification of recombinant peptides with enhanced alkaline durability, mechanical strength, and loadability.

The PK Series C8's resolution for an insulin separation demonstrated a 22.5% higher R_s than the competitor.

11.0%
CARBON LOADING

0.9 mL/g
PORE VOLUME

320 m²/g
SURFACE AREA

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-100-8-C8-PK	100	8	0.9	320	11.0
SP-100-10-C8-PK	100	10	0.9	320	11.0



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HIGHEST CARBON CONTENT PHASE

BULK SILICA: BONDED PHASE C8

The HP Series C8 phase combines our **highest carbon loading** of 15.5% with advanced end-capping technology to allow for use in applications covering a wide pH range.

HP Series C8 is recommended for crude samples with higher hydrophobicity.

15.5%

CARBON LOADING

1.1 mL/g

PORE VOLUME

450 m²/g

SURFACE AREA

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-100-3-C8-HP	100	3	1.1	450	15.5
SP-100-5-C8-HP	100	5	1.1	450	15.5
SP-100-8-C8-HP	100	8	1.1	450	15.5
SP-100-10-C8-HP	100	10	1.1	450	15.5
SP-100-15-C8-HP	100	15	1.1	450	15.5



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WIDE PH RANGE PHASE

BULK SILICA: BONDED PHASE C8

BIO Series C8 phase makes it suitable for purification of small peptides, microbial proteins (insulin), and oligonucleotides with **wide pH range** applications.

BIO Series C8 phase should be evaluated for your mid or large MW compounds that retain too strongly on Bio Series ODS phases.

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-120-5-C8-BIO	120	5	1.0	300	12.0
SP-120-10-C8-BIO	120	10	1.0	300	12.0
SP-120-15-C8-BIO	120	15	1.0	300	12.0
SP-120-20-C8-BIO	120	20	1.0	300	12.0
SP-200-5-C8-BIO	200	5	1.1	200	8.0
SP-200-10-C8-BIO	200	10	1.1	200	8.0
SP-200-15-C8-BIO	200	15	1.1	200	8.0
SP-200-20-C8-BIO	200	20	1.1	200	8.0
SP-300-5-C8-BIO	300	5	0.9	100	6.0
SP-300-10-C8-BIO	300	10	0.9	100	6.0
SP-300-15-C8-BIO	300	15	0.9	100	6.0
SP-300-20-C8-BIO	300	20	0.9	100	6.0



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4.0 PHENYL PHASES



NOVEL COMBINATION PHASE

BULK SILICA: PHENYL PHASE

Our novel **Butyl-Phenyl** phase was developed to provide a truly unique boost in separation. This phase leverages a secondary interaction while still applying separation principles of typical C18 or C8 alkyl chain bonded phases.

The aromatically selective C4Ph-HP is equipped with the high loadability of the HP Series and just the right carbon loading for a combination phase.

16.0%

CARBON LOADING

1.1 mL/g

PORE VOLUME

450 m²/g

SURFACE AREA

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-100-8-C4Ph-HP	100	8	1.1	450	16.0
SP-100-10-C4Ph-HP	100	10	1.1	450	16.0
SP-100-15-C4Ph-HP	100	15	1.1	450	16.0



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5.0 C4 PHASES



OUR PREMIUM PHASE

BULK SILICA: BONDED PHASE C4

Our newest C4 phase, the PK Series is a **premium** product that has been holistically designed for optimized purification of recombinant peptides with enhanced alkaline durability, mechanical strength, and loadability.

The PK Series bare silica can tolerate over 170 column volumes of weak NaOH washing before particle degradation, 50% more CVs than our competitors.

8.0%
CARBON LOADING

0.9 mL/g
PORE VOLUME

320 m²/g
SURFACE AREA

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-100-8-C4-PK	100	8	0.9	320	8.0
SP-100-10-C4-PK	100	10	0.9	320	8.0



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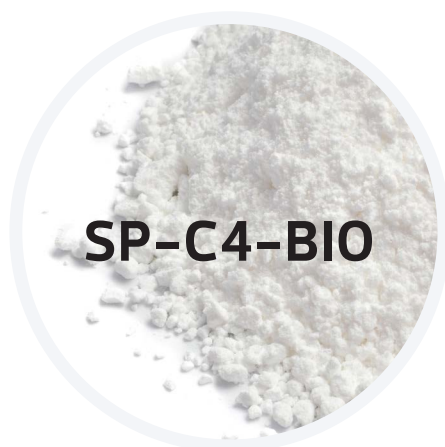
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LOW CARBON CONTENT PHASE

BULK SILICA: BONDED PHASE C4

The **low carbon loading** of the BIO Series C4 phase makes it suitable for purification of small peptides, microbial proteins (insulin) and oligonucleotides with wide pH range applications.

BIO Series C4 phase is alkaline stable between pH 1.5 and 11. The 300 Å wide pore BIO Series C4 is ideal for bulky molecules and proteins.

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-120-5-C4-BIO	120	5	1.0	300	9.0
SP-120-10-C4-BIO	120	10	1.0	300	9.0
SP-120-15-C4-BIO	120	15	1.0	300	9.0
SP-120-20-C4-BIO	120	20	1.0	300	9.0
SP-200-5-C4-BIO	200	5	1.1	200	6.0
SP-200-10-C4-BIO	200	10	1.1	200	6.0
SP-200-15-C4-BIO	200	15	1.1	200	6.0
SP-200-20-C4-BIO	200	20	1.1	200	6.0
SP-300-5-C4-BIO	300	5	0.9	100	3.0
SP-300-10-C4-BIO	300	10	0.9	100	3.0
SP-300-15-C4-BIO	300	15	0.9	100	3.0
SP-300-20-C4-BIO	300	20	0.9	100	3.0



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NON-ENDCAPPED PHASE

BULK SILICA: BONDED PHASE C4

If you require a unique selectivity for a special application, this **non-endcapped** version of C4 permits separation that is dominated by silanol interactions.

This novel combination of hydrogen bonding capacity from silanols combined with hydrophobicity from the C4 is only the beginning. Additional "black box" non-endcapped phases are coming soon!

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-100-8-C4-NP	100	8	1.1	450	10.0
SP-100-10-C4-NP	100	10	1.1	450	10.0
SP-100-15-C4-NP	100	15	1.1	450	10.0



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EPO PURIFICATION PHASE

BULK SILICA: BONDED PHASE C4

Our P Series C4 is bonded with butyl groups for moderate hydrophobicity. The SP-300-20-C4-P is ideal for the purification of **erythropoietin (EPO)**.

“P” is a reference to our “ultra high purity” grade of bare silica gel, with a specification of less than 10 ppm of Al, Fe, Ti, and Zr metal impurities.

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-120-3-C4-P	120	3	1.0	300	7.0
SP-120-5-C4-P	120	5	1.0	300	7.0
SP-120-10-C4-P	120	10	1.0	300	7.0
SP-120-15-C4-P	120	15	1.0	300	7.0
SP-120-20-C4-P	120	20	1.0	300	7.0
SP-200-3-C4-P	200	3	1.1	200	5.0
SP-200-5-C4-P	200	5	1.1	200	5.0
SP-200-10-C4-P	200	10	1.1	200	5.0
SP-200-15-C4-P	200	15	1.1	200	5.0
SP-200-20-C4-P	200	20	1.1	200	5.0
SP-300-10-C4-P	300	10	0.9	100	3.0
SP-300-15-C4-P	300	15	0.9	100	3.0
SP-300-20-C4-P	300	20	0.9	100	3.0



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6.0 APS PHASES



AMINO-PROPYL SILANE PHASE

BULK SILICA: BONDED PHASE APS

The P Series APS phase is an **amino-propyl silane** bonded phase best suited for sugar applications or hydrophilic interaction liquid chromatography (HILIC) separations.

HILIC is sometimes called a "reverse reversed-phase", because an organic is the starting solvent and water is the elution solvent.

ORDERING INFORMATION

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-120-3-APS-P	120	3	1.0	300	4.0
SP-120-5-APS-P	120	5	1.0	300	4.0
SP-120-10-APS-P	120	10	1.0	300	4.0
SP-120-15-APS-P	120	15	1.0	300	4.0
SP-120-20-APS-P	120	20	1.0	300	4.0
SP-200-3-APS-P	200	3	1.1	200	3.0
SP-200-5-APS-P	200	5	1.1	200	3.0
SP-200-10-APS-P	200	10	1.1	200	3.0



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ORDERING INFORMATION (CONTINUED)

Product Name	Pore Size (Å)	Particle Size (µm)	Pore Volume (mL/g)	Surface Area (m ² /g)	% of Carbon
SP-200-15-APS-P	200	15	1.1	200	3.0
SP-200-20-APS-P	200	20	1.1	200	3.0
SP-300-3-APS-P	300	3	0.9	100	2.0
SP-300-5-APS-P	300	5	0.9	100	2.0
SP-300-10-APS-P	300	10	0.9	100	2.0
SP-300-15-APS-P	300	15	0.9	100	2.0
SP-300-20-APS-P	300	20	0.9	100	2.0



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