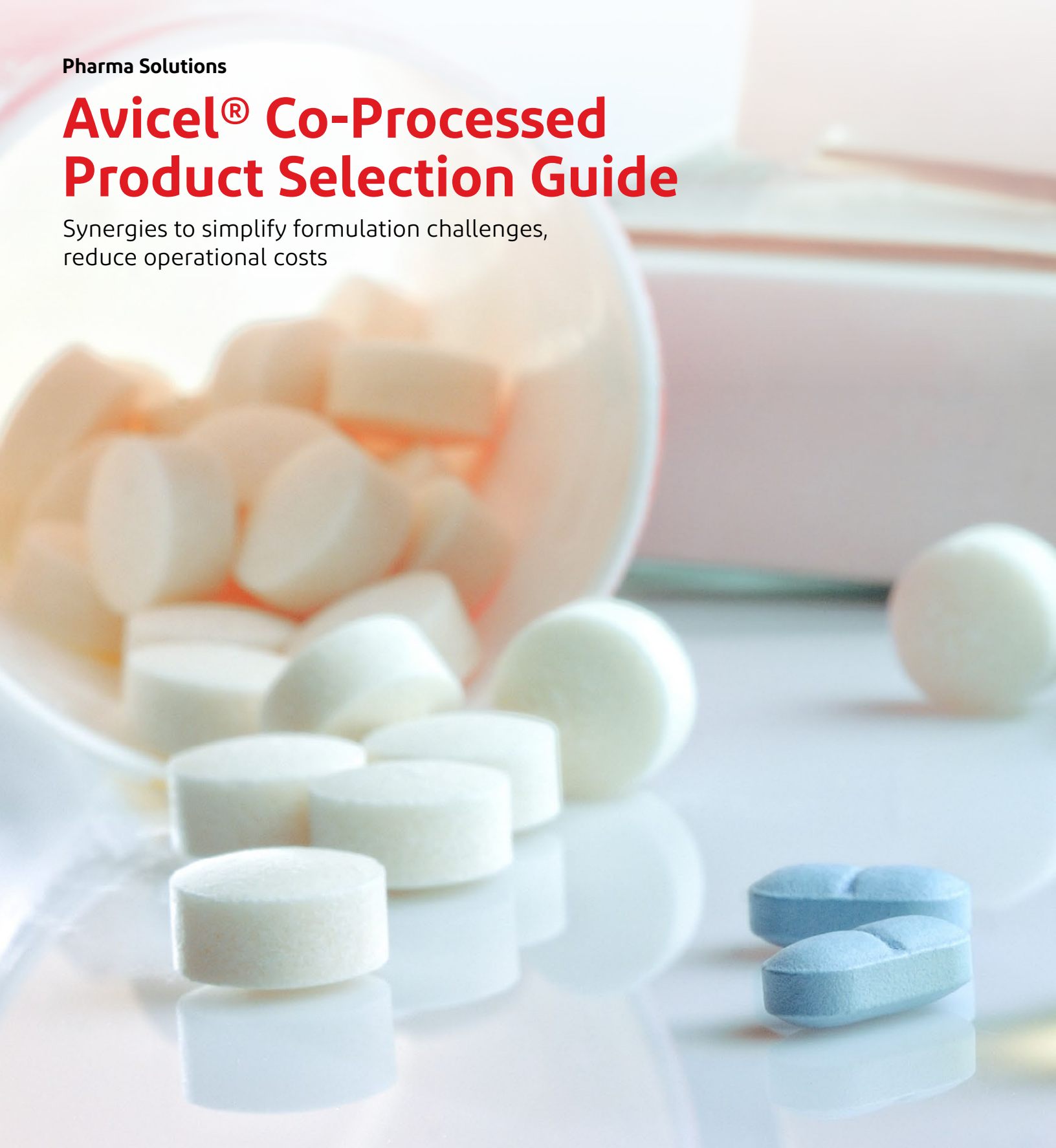


Pharma Solutions

Avicel® Co-Processed Product Selection Guide

Synergies to simplify formulation challenges,
reduce operational costs



Providing solutions with the leading co-processed excipient portfolio.

Consistent, cost-effective performance

Co-processed excipients (CPEs) provide functional synergy with the convenience of reduced testing and scale-up. When manufactured under tightly controlled conditions, CPEs deliver consistent, cost-effective performance and are particularly suited for supporting Quality by Design and continuous manufacturing.

The most trusted excipient

DuPont's co-processed portfolio is built on Avicel® microcrystalline cellulose, the most trusted excipient brand for decades. By producing Avicel® concurrently with other common excipients, synergies are created above what standard products and blends can offer. We have applied our extensive manufacturing and applications expertise to develop the leading range of co-processed excipients.

AVICEL® CO-PROCESSED EXCIPIENTS OFFER IMPROVED:

- Powder flow
- Content uniformity
- Tablet compactibility
- Lubrication tolerance
- Sensory attributes in chewables
- Suspension properties in liquids

Advantages	Product name	Co-processed excipient	Nominal particle size, µm
Improved flow and compactibility	Avicel® SMCC 50	Colloidal Silicon Dioxide	50
	Avicel® SMCC 90	Colloidal Silicon Dioxide	100
	Avicel® SMCC HD 90	Colloidal Silicon Dioxide	100
Improved compactibility, mainly in dry granulation	Avicel® DG	Dicalcium Phosphate	45
Improved flow and decreased lubrication sensitivity	Avicel® HFE-102	Mannitol	100
Improved sensory attributes in chewables	Avicel® CE-15	Guar Gum	75
Superior gel strength and thixotropic behavior for suspensions	Avicel® CL-611	Carboxymethyl Cellulose Sodium	N/A
	Avicel® RC-591	Carboxymethyl Cellulose Sodium	N/A



Nutrition & Biosciences

www.pharma.dupont.com
www.dupontnutritionandbiosciences.com

The information contained herein is based on data known to DuPont or its affiliates at the time of preparation of the information and believed by them to be reliable. This is business-to-business information intended for food, beverage and supplement producers, and is not intended for the final consumer of a finished food, beverage or supplement product. The information is provided "as is" and its use is at the recipient's sole discretion and risk. It is the recipient's sole responsibility to determine the suitability and legality of its proposed use of DuPont products for its specific purposes. Information and statements herein shall not be construed as licenses to practice, or recommendations to infringe, any patents or other intellectual property rights of DuPont or others.

DUPONT HEREBY EXPRESSLY DISCLAIMS (I) ANY AND ALL LIABILITY IN CONNECTION WITH SUCH INFORMATION, INCLUDING, BUT NOT LIMITED TO, ANY LIABILITY RELATING TO THE ACCURACY, COMPLETENESS, OR USEFULNESS OF SUCH INFORMATION, AND (II) ANY AND ALL REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, OR ANY PART THEREOF, INCLUDING ALL REPRESENTATIONS AND WARRANTIES OF TITLE, NON-INFRINGEMENT OF COPYRIGHT OR PATENT RIGHTS OF OTHERS, MERCHANTABILITY, FITNESS OR SUITABILITY FOR ANY PURPOSE, AND WARRANTIES ARISING BY LAW, STATUTE, USAGE OF TRADE OR COURSE OF DEALING.

DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, SM or ® are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted. © 2020 DuPont.