



## Putting the power of a comprehensive portfolio and global presence at your service

Solid dose formulations are the most important dosage forms for pharmaceuticals – first and foremost, the tablet. Here at Merck Millipore, we have created a comprehensive product portfolio to meet all your solid dosage needs. We can provide you with everything you require for your final product – everywhere around the world. Our high-quality excipients and APIs are supported by our regulatory expertise and EMPROVE® documentation, helping you simplify your supplier qualification and speed up processes, thus reducing the total cost of ownership.

### Benefits:

- Extensive product portfolio
- High-quality pharmaceutical raw materials
- EMPROVE® documentation
- Regulatory support

### Dosage forms:

- Swallowed tablets (incl. fast and sustained release)
- Orally disintegrating tablets (ODT)
- Chewables
- Effervescent
- Lozenges
- Sublinguals
- Sachets
- Capsules
- Lyophilisates
- Dry syrup/reconstituted syrup
- Suppositories
- Dry-powder inhaler
- Multiparticulates



## Speed up your processes with EMPROVE® documentation

All of our solid dose excipients are backed up by our EMPROVE® dossiers, providing you with unparalleled regulatory support and ready-to-use documentation. Designed to make your job easier by providing a thorough and seamless material qualification trail, EMPROVE® dossiers help you simplify your processes, so you can speed up approval preparation and get your product to market faster.

Visit [www.merckmillipore.com/emprove](http://www.merckmillipore.com/emprove) for more information.

## The right products for your manufacturing process

Direct compression continues to remain popular in the pharmaceutical industry. And there are good reasons for this trend: production is fast, efficient, and easy to control. Direct compression also works well with water and heat-sensitive APIs and is the least expensive process for lower total cost of ownership.

We offer a broad range of superior excipients for direct compression, distinguished by outstanding flowability, compressibility, and dissolution, such as our Parateck® range of excipients, created specifically for solid dosage forms. The Parateck® family of products also yields excellent results with other technologies such as wet granulation or roller compaction. Featuring outstanding functionalities and a unique particle structure developed in line with our Functional Particle Engineering principle, the greater surface area of Parateck® particles improves disintegration and content uniformity. With Parateck®, formulators benefit from excellent tableting behavior – you can produce harder tablets using lower compression forces – thus reducing wear on your equipment.

We also offer products that help you boost your productivity by significantly enhancing bioavailability. Merck Millipore can assist you with broad experience and deep application know-how so that your products don't get stuck in the development pipeline.

Visit [www.merckmillipore.com/parateck](http://www.merckmillipore.com/parateck) or [www.merckmillipore.com/bioavailability](http://www.merckmillipore.com/bioavailability) for more information.



### Parateck® CCS – the superdisintegrant for solid formulations

Unlike conventional disintegrants, Parateck® CCS can be utilized in low concentration and still impart exceptional disintegrating properties to the final dosage forms.

- Faster disintegration due to larger particle size
- Does not contain peroxides, results in better API stability
- Good tablet dissolution over a broad compression and hardness range
- Flexible: can be used in direct compression, roller compaction, wet granulation, and capsule formulation
- Batch-to-batch consistency
- Faster time to market with EMPROVE® documentation

Ord. No.	Product	Binders and fillers	Coatings and supporting material	Surfactants and stabilizers	pH adjustment	Lubricants and glidants	Disintegrants	Taste modifiers	Direct compression
480745	Acetic acid 30% extra pure Ph Helv				•				
101615	Agar extra pure, fine powder Ph Eur, BP	•							
101136	Ammonium carbonate, suitable for use as excipient EMPROVE® exp Ph Franç, NF, E 503				•				
101142	Ammonium chloride, suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP				•			•	
102052	Calcium acetate hydrate extra pure DAC, FCC				•				
112120	Calcium carbonate precipitated ( $\leq 0.0001\%$ Al), suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP, JP, FCC, E 170	•			•				
102064	Calcium carbonate precipitated ( $\leq 0.002\%$ Fe), suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP, JP, FCC	•			•				
102074	Calcium carbonate precipitated, special grade ( $\leq 0.002\%$ Fe), suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP	•			•				
102069	Calcium carbonate precipitated, suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP, E 170, FCC	•			•				
102304	Calcium hydrogen phosphate anhydrous extra fine powder, suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP, FCC, E 341	•							
102146	Calcium hydrogen phosphate dihydrate extra fine powder, suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP, FCC, E 341	•							
102143	Calcium phosphate dried, suitable for use as excipient EMPROVE® exp Ph Eur, BP, E 341	•							
120610	Candurin® Gold Lustre		•						
120619	Candurin® Red Lustre		•						
120602	Candurin® Silver Lustre		•						
100989	Cetyl alcohol, suitable for use as excipient EMPROVE® exp Ph Eur, BP, NF, JP		•						
102492	Chlorophyllin water-soluble (Na-Cu-Chlorophyllin) (C.I. 75815) minimum 98% E 141 (ii)		•						
100247	Citric acid anhydrous fine-granular, suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP, E 330, FCC				•			•	
100241	Citric acid anhydrous powder, suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP, E 330, FCC				•			•	
100242	Citric acid monohydrate cryst., suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP, E 330, FCC				•			•	
100243	Citric acid monohydrate powder, suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP, E 330, FCC				•			•	
101155	di-Ammonium hydrogen citrate, suitable for use as excipient EMPROVE® exp				•				
817067	Dibutyl sebacate NF		•						
105321	Fructose extra pure Ph Eur, BP, USP, FCC							•	
817073	Fumaric acid NF				•			•	

Ord. No.	Product	Binders and fillers	Coatings and supporting material	Surfactants and stabilizers	pH adjustment	Lubricants and glidants	Disintegrants	Taste modifiers	Direct compression
104061	Galactose, suitable for use as excipient EMPROVE® exp Ph Eur, BP	•							
104072	Gelatin (sheets), suitable for use as excipient EMPROVE® exp Ph Eur, BP, NF	•							
104078	Gelatin powder, suitable for use as excipient EMPROVE® exp Ph Eur, BP, NF	•							
108346	Glucose monohydrate, suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP	•						•	
101791	Glutamic acid, suitable for use as excipient EMPROVE® exp Ph Eur							•	
104091	Glycerol 85%, suitable for use as excipient EMPROVE® exp Ph Eur, BP		•						
104093	Glycerol anhydrous, suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP, E 422		•						
104228	Gum arabic spray-dried, suitable for use as excipient EMPROVE® exp Ph Eur, BP		•						
108117	Kieselguhr purified and calcined, suitable for use as excipient EMPROVE® exp NF	•							
107656	Lactose monohydrate (milk sugar) powder, suitable for use as excipient EMPROVE® exp Ph Eur, BP, NF, JP	•							
108195	Lactose monohydrate (milk sugar) special grade for tableting, suitable for use as excipient EMPROVE® exp Ph Eur, BP, NF, JP	•							
105829	Magnesium hydroxide carbonate heavy extra pure Ph Eur, BP, USP, E 504	•							
105828	Magnesium hydroxide carbonate light extra pure Ph Eur, BP	•							
105870	Magnesium hydroxide extra pure Ph Eur, BP, USP				•	•			
105862	Magnesium oxide light extra pure Ph Eur, BP, E 530				•				
817058	Maleic acid, suitable for use as excipient EMPROVE® exp Ph Eur, NF				•				
100383	Malic acid, suitable for use as excipient EMPROVE® exp Ph Eur, NF, FCC, E 296				•				
105911	Maltose monohydrate, suitable for use as excipient EMPROVE® exp	•						•	
105988	Mannitol fine powder, suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP, JP, FCC, E 421	•							
105980	Mannitol, suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP, JP, FCC, E 421	•							
106143	Meglumine low in endotoxins, suitable for use as active pharmaceutical ingredient EMPROVE® api Ph Eur, JP, USP			•	•				
105995	Menthol cryst., suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP							•	
106070	Methyl salicylate synthetic, suitable for use as excipient EMPROVE® exp Ph Eur, BP, NF							•	
102310	Parteck® CCS Croscarmellose sodium, suitable for use as excipient EMPROVE® exp Ph Eur, JP, NF						•		•
112635	Parteck® Delta M (Mannitol), suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP, JP, E 421	•							

Ord. No.	Product	Binders and fillers	Coatings and supporting material	Surfactants and stabilizers	pH adjustment	Lubricants and glidants	Disintegrants	Taste modifiers	Direct compression
100664	Parateck® LUB CST (Calcium stearate vegetable grade), suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, NF, FCC					•			•
100663	Parateck® LUB MST (Magnesium stearate vegetable grade), suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, NF, FCC					•			•
100661	Parateck® LUB STA 50 (Stearic acid 50 vegetable grade), suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, NF					•			•
108070	Parateck® LUB Talc, suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP		•			•			•
100494	Parateck® M 100 (Mannitol), suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP, E 421	•							•
100419	Parateck® M 200 (Mannitol), suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP, E 421	•							•
102440	Parateck® Mg DC (Magnesium hydroxide carbonate) heavy, suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP, E 504	•							•
100490	Parateck® ODT, suitable for use as excipient EMPROVE® exp	•							•
103583	Parateck® SI 150 (Sorbitol), suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, NF, JSFA, E 420	•							•
115079	Parateck® SI 200 (Sorbitol), suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, NF, E 420	•							•
103140	Parateck® SI 400 (Sorbitol), suitable for use as excipient EMPROVE® exp Ph Eur, BP, JSFA, NF, E 420	•							•
103557	Parateck® SI 450 (Sorbitol), suitable for use as excipient EMPROVE® exp NF, FCC, JSFA	•							•
137065	Poloxamer 188, suitable for biopharmaceutical production Ph Eur, NF			•					
817019	Polyethylene glycol 3000, suitable for use as excipient EMPROVE® exp Ph Eur					•			
817006	Polyethylene glycol 4000 (powder), suitable for use as excipient EMPROVE® exp Ph Eur					•			
817063	Polyethylene glycol 4000 (scales), suitable for use as excipient EMPROVE® exp Ph Eur					•			
817007	Polyethylene glycol 6000, suitable for use as excipient EMPROVE® exp Ph Eur					•			
141355	Polyvinyl alcohol 18-88, suitable for use as excipient EMPROVE® exp Ph Eur, USP, JPE	•	•						
141352	Polyvinyl alcohol 26-88, suitable for use as excipient EMPROVE® exp Ph Eur, USP, JPE	•	•						
141356	Polyvinyl alcohol 28-99, suitable for use as excipient EMPROVE® exp JPE	•	•						
141353	Polyvinyl alcohol 40-88, suitable for use as excipient EMPROVE® exp Ph Eur, USP, JPE	•	•						
141350	Polyvinyl alcohol 4-88, suitable for use as excipient EMPROVE® exp Ph Eur, USP, JPE	•	•						
141354	Polyvinyl alcohol 5-88, suitable for use as excipient EMPROVE® exp Ph Eur, USP, JPE	•	•						
141351	Polyvinyl alcohol 8-88, suitable for use as excipient EMPROVE® exp Ph Eur, USP, JPE	•	•						
104871	Potassium dihydrogen phosphate cryst., suitable for use as excipient EMPROVE® exp Ph Eur, BP, NF, E 340				•				

Ord. No.	Product	Binders and fillers	Coatings and supporting material	Surfactants and stabilizers	pH adjustment	Lubricants and glidants	Disintegrants	Taste modifiers	Direct compression
817042	Saccharin sodium dihydrate, suitable for use as excipient EMPROVE® Ph Eur, USP							•	
817022	Saccharin, suitable for use as excipient EMPROVE® exp Ph Eur, NF							•	
113126	Silicon dioxide colloidal, highly dispersed, suitable for use as excipient EMPROVE® exp Ph Eur, NF, JP, E 551					•			
106265	Sodium acetate trihydrate extra pure Ph Eur, BP, JP, USP, FCC, E 262				•				
817044	Sodium cyclamate, suitable for use as excipient EMPROVE® exp Ph Eur, BP							•	
106323	Sodium hydrogen carbonate, suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, USP, FCC, E 500				•				
106445	Sodium L-glutamate monohydrate, suitable for use as excipient EMPROVE® exp FCC, NF, E 621							•	
101253	Starch soluble extra pure	•					•	•	
100895	Sucralose granular, suitable for use as excipient EMPROVE® exp Ph Eur, NF							•	
100894	Sucralose powder, suitable for use as excipient EMPROVE® exp Ph Eur, NF							•	
107653	Sucrose, suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, NF	•						•	
108197	Tabletting aid K (cellulose powder), suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, NF, E 460ii	•							
100802	Tartaric acid cryst., suitable for use as excipient EMPROVE® exp Ph Eur, BP, JP, NF, E 334				•			•	
100805	Titanium (IV) oxide, suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP, JP, E 171	•	•						
103000	Triacetin, suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP		•						
817059	Triethyl citrate Ph Eur, JPE, NF		•						
817072	Tween® 20 (Polysorbate), suitable for use as excipient EMPROVE® exp Ph Eur, JPE, NF			•					
817076	Tween® 60 (Polysorbate), suitable for use as excipient EMPROVE® exp Ph Eur, JPE, NF			•					
817061	Tween® 80 (Polysorbate), suitable for use as excipient EMPROVE® exp Ph Eur, JP, NF			•					
108510	Vanillin, suitable for use as excipient EMPROVE® exp Ph Eur, BP, NF							•	
108692	Xylose Ph Eur, BP	•							
108846	Zinc oxide, suitable for use as excipient EMPROVE® exp Ph Eur, BP, USP		•						

Samples in small package sizes available upon request.

The typical technical data above serve to generally characterize the excipient. These values are not meant as specifications and they do not have binding character. The product specification is available separately, from the website: [www.merckmillipore.com](http://www.merckmillipore.com)

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