

# Excipient Portfolio

High quality  
excipients?  
Why not!

Carefully selected excipients for  
your special requirements.

## Excipients

Easy, fast and reliable.  
BIOGRUND guarantees  
quality and  
reproducibility.

**BIOGRUND** offers high quality excipients for the pharmaceutical and nutraceutical industry.

We provide **Cellulose Ethers** whose properties depend on the type of substituent, the number of substituted hydroxy groups and their distribution. They are soluble in water and/or organic solvents depending on the type and number of ether groups introduced. Some cellulose ethers (e.g. methyl and hydroxypropyl celluloses) show reverse solubility in water, i.e. they can be flocculated from their aqueous solutions by heating.

**Pigments, Dyes & Lakes** are available in natural or synthetic forms and in different solubilities. For coloring of all kinds of products: liquids, powders, creams, tablets, chewing gums and more.

**Other Excipients** besides cellulose, pigments, dyes & lakes are available, which can be used as binders, fillers, plasticizers and lubricants.

Choosing the right excipient is one of the first steps in a long manufacturing process. **BIOGRUND** is there to support you from the very beginning and will help you to maximize your chances of creating the perfect finished products.

Beside the wide range of film forming polymers our offered excipients can increase flowability and lubricity of your product, can give color and can adjust disintegration times. A carefully selected excipient can reduce manufacturing costs by being multifunctional.

In general, excipients are important for accurate drug delivery within the human body. An excipient should match the intended dosage form of the drug, adjusted to regulations, demonstrate great organoleptic properties, be easy to source and work effectively.

The chosen excipient should have the ideal pharmacokinetic properties for your intended application. It should also fit into your manufacturing plan and work well with your equipment. Deciding factors include the intended use of the compound, environmental conditions or the amount of compound needed that might affect an excipient.

We help you selecting high quality excipients of your need with the right quality (Pharma-/Nutraceutical, Cosmetics). Please contact us for further information.



# Cellulose Ethers

Chemical name	CAS No.	E No.	Monograph			
			EP	USP/NF	JP	BP
Ethyl Cellulose	9004-57-3	E462	✓	✓	✓ <sup>JPE</sup>	x
Hydroxyethyl Cellulose	9004-62-0	x	✓	✓	x	x
Hydroxypropyl Cellulose Food	9004-64-2	E463	x	x	x	x
Hydroxypropyl Cellulose Pharma	9004-64-2	x	✓	✓	✓	x
Hydroxypropylmethyl Cellulose (Hypromellose) *	9004-65-3	E464	✓	✓	✓	x
Methyl Cellulose *	9004-67-5	E461	✓	✓	✓	x
Sodium Carboxymethyl Cellulose *	9004-32-4	E466	✓	✓	✓	x

\* selected types of the excipients may differ in E-number, viscosity, particle size or monograph.

✓ in accordance with the monograph.

x not in accordance with the monograph.

✓<sup>JPE</sup> only in accordance with the monograph from Japanese Pharmaceutical Excipients, not JP.

## Distribution products

Cellulose ethers by ShinEtsu (SE Tylose GmbH & Co. KG)



Brand name	Description/Application
TYLOPUR Xtend Nutra® 4T (Hypromellose)	- extended release of active ingredients - for nutraceutical/nutritional applications - viscosity grade 4000mPas
TYLOPUR Xtend Nutra® 15T (Hypromellose)	- extended release of active ingredients - for nutraceutical/nutritional applications - viscosity grade 15000 mPas
Tylopur® 90SH-10000SR (Hypromellose)	- for sustained release (matrix tablets) - thickening, suspending, plaster/dermal patch - viscosity grade 100000 mPas
Tylopur® DG-4T (Hypromellose)	- for disinfectant gels / hand sanitizer gels - thickener agents to increase the viscosity - viscosity grade 4000 mPas

# Pigments, Dyes & Lakes

Chemical name	CAS No.	E No.	Monograph			
			EP	USP/NF	JP	BP
Allura Red AC	68583-95-9	E129	x	x	x	x
Azorubine, Carmoisine	84041-67-8	E122	x	x	x	x
Brilliant Blue FCF	15792-67-3	E133	x	x	x	x
Copper Chlorophyllin	11006-34-1	E141(ii)	x	x	x	x
Indigotine, Indigo Carmine	16521-38-3	E132	x	x	x	x
Iron Oxide Black	1317-61-9	E172	x	✓	✓ <sup>JPE</sup>	x
Iron Oxide Brown *	1309-37-1 51274-00-1 1317-6-9	E172	x	x	x	x
Iron Oxide Red	1309-37-1	E172	x	✓	✓ <sup>JPE</sup>	x
Iron Oxide Yellow	51274-00-1	E172	x	✓	✓ <sup>JPE</sup>	x
Patent Blue V	3536-49-0	E131	x	x	x	x
Ponceau 4R, Cochineal Red A	2611-82-7	E124	x	x	x	x
Quinoline Yellow	100208-62-6	E104	x	x	x	x
Riboflavin	83-88-5	E101(i)	✓	x	x	x
Sunset Yellow FCF	15790-07-5	E110	x	x	x	x
Tartrazine	12225-21-7	E102	x	x	x	x
Titanium Dioxide	13463-67-7	E171	✓	✓	✓	✓

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# Further Excipients

Chemical name	CAS No.	E No.	Monograph			
			EP	USP/NF	JP	BP
Acacia Gum	9000-01-5	E414	✓	✓	x	x
Betadex	7585-39-9	E459	✓	✓	x	x
Calcium Hydrogen Phosphate *	7757-93-9	E341 (ii)	✓	✓	✓	x
Calcium Hydrogen Phosphate Dihydrate	7789-77-7	E341 (ii)	✓	✓	✓	x
Citric Acid Anhydrous	77-92-9	E330	✓	✓	✓	x
Copovidone	25086-89-9	x	✓	✓	✓ <sup>JPE</sup>	x
Corn Starch	9005-25-8	x	✓	✓	✓	x
Glycerol	56-81-5	E422	✓	x	x	x
Inulin (Polyfructose)	9005-80-5	x	x	x	x	x
Isomalt	64519-82-0	E953	✓	✓	✓	✓
Lactose Monohydrate	64044-51-5	x	✓	✓	✓	x
Lecithin (Soya)	8002-43-5	E322	x	x	x	x
Lecithin (Sunflower)	8002-43-5	E322	x	x	x	x
Magnesium Stearate	557-04-0	E470b	✓	✓	✓	✓

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# Further Excipients

Chemical name	CAS No.	E No.	Monograph			
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Mannitol	69-65-8	E421	✓	✓	X	X
Medium-Chain Triglycerides	73398-61-5	X	✓	✓	✓ <sup>JPE</sup>	X
Polydextrose	68424-04-4	E1200	X	X	X	X
Polyethylene Glycol (Macrogols) 400-20000 *	25322-68-3	E1521	✓	✓	✓	X
Polyvinylpyrrolidone *	9003-39-8	E1202	✓	✓	✓	X
Polyvinylpyrrolidone (Povidone) *	9003-39-8	E1201	✓	✓	✓	X
Pregelatinized Corn Starch	9005-25-8	X	✓	✓	X	X
Propylene Glycol	57-55-6	E1520	✓	✓	✓	X
Silicon Dioxide *	7631-86-9	E551	✓	✓	✓	X
Sodium Octenyl Succinate Starch	66829-29-6	E1450	X	✓	X	X
Sorbitol	50-70-4	E420	✓	✓	X	X
Stearic Acid	57-11-4	E570	✓	✓	✓	✓
Talc	14807-96-6	E553b	✓	✓	✓	X
Triethyl citrate	77-93-0	E1505	✓	✓	X	X

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## General Information on BIOGRUND

Since 1999, **BIOGRUND** has been the specialist for the homogeneous mixing of excipients and carriers. With locations in Germany, Switzerland, America and Russia, we support the food supplement and pharmaceutical industry in the development, formulation and production of solid oral dosage forms. The tailor-made and ready-to-use special powder mixtures for film coating, sugar-coating, coloring and tableting enable optimum results in a short time. Easy, fast and reliable!

### Locations

#### EUROPE

##### Germany

T +49 (0) 6126-952 63-0

##### Switzerland

T +41 (0) 41-747 14-50

#### USA

T +1 (502) 901-2980

#### RUSSIA

T +7 (495) 116-0386

#### Global contact:

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