

# PRESS RELEASE

Number 62

## WACKER Expands Technical Center in Adrian and Opens a New Laboratory for Industrial Applications of Cyclodextrins

**Munich / Adrian, October 25, 2017 –** Munich-based chemicals group WACKER is expanding the service portfolio of its technical center in Adrian, Michigan, USA. For the first time, WACKER is establishing a global laboratory dedicated to developing and commercializing new industrial applications for its cyclodextrin products. These organic, ring-shaped sugar molecules are capable of binding, releasing or stabilizing substances. Because of these abilities, cyclodextrins are used in numerous industries, from household and personal care to pharma, cosmetics, textiles, food and agrochemicals, as well as in the coatings sector. The new laboratory enables WACKER to develop together with its customers novel, tailored product solutions and to open new markets for cyclodextrins.

“By enhancing research efforts in the field of cyclodextrin technology, our emphasis will be on developing new and advanced applications in growth markets, such as smart polymers, functional coatings and environmental remediation”, said Dr. Jörn Winterfeld, Vice President Business Line Agro & Pharma at WACKER BIOSOLUTIONS, the Group’s life sciences and biotechnology division. “With our new lab and our collaborations with leading academics and industrial partners, we are ideally positioned to further explore novel market opportunities for our innovative cyclodextrins.”

Research areas are for example innovative polymer systems based on cyclodextrins for self-healing coatings. WACKER is cooperating with leading scientists to tap the potentials of this new material, as the plant-

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based sugar molecules offer a novel and environmentally sound alternative to many traditional materials. Further current projects are exploring the capabilities of cyclodextrin in water or air treatment applications, for instance to filter unwanted odors or pollutants.

WACKER's involvement in cyclodextrin-related R&D began in the early 1980s. Today, WACKER is a global market leader and the only company globally to manufacture all of the three naturally occurring cyclodextrins. WACKER has been producing the sugar molecules at its Eddyville site in the USA since 1999.

### **About Cyclodextrins**

Cyclodextrins are cyclic sugar molecules (oligosaccharides) consisting of six, seven or eight glucose units. They are naturally occurring carbohydrates that WACKER produces enzymatically from plant-based raw materials such as corn or potatoes. Cyclodextrins' special ring-shape creates an interior cavity, similar to a donut, in which they can take up other, primarily hydrophobic substances. In the presence of water, the guest molecules are released. In this way, the sugar molecules can bind ingredients, release active agents or stabilize sensitive substances and interfaces. The ability to reversibly enclose other substances makes cyclodextrins invaluable in many products such as pharmaceuticals, cosmetics, textiles and food, as well as in the household-care, personal care and construction sectors. Cyclodextrins are non-toxic, non-allergenic and pose no known health risks based on today's scientific findings.

### **WACKER BIOSOLUTIONS**

Using advanced biotech processes, WACKER BIOSOLUTIONS provides tailored, innovative solutions and products to the life-science sector – including pharmaceutical proteins, cyclodextrins and fermentation-

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generated cysteine. Its portfolio is also complemented by catalog chemicals, such as acetylacetone and high-quality polyvinyl acetate solid resins. The division focuses on developing customized solutions for growth sectors, such as food ingredients, pharmaceutical actives and agrochemicals.



Practical test for industrial applications of cyclodextrins conducted at WACKER's new lab in Adrian. The new laboratory enables WACKER to develop novel, tailored product solutions together with its customers and to open new markets for cyclodextrins (photo: Wacker Chemie AG).

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**The company in brief:**

WACKER is a globally active chemical company with some 13,450 employees and annual sales of around €4.6 billion (2016, excluding Siltronic). WACKER has a global network of 23 production sites, 19 technical competence centers and 49 sales offices.

**WACKER SILICONES**

Silicone fluids, emulsions, rubber and resins; silanes; pyrogenic silicas; thermoplastic silicone elastomers

**WACKER POLYMERS**

Polyvinyl acetate and vinyl acetate co- and terpolymers in the form of dispersible polymer powders, dispersions, solid resins and solutions

**WACKER BIOSOLUTIONS**

Biotech products such as cyclodextrins, cysteine and biologics, as well as fine chemicals and PVAc solid resins

**WACKER POLYSILICON**

Polysilicon for the semiconductor and photovoltaic industries