



## Every drop counts

**Water is becoming scarce – everywhere. Of the 6.6 billion people currently inhabiting the world, already today more than 4 billion do not have adequate access to this increasingly precious resource. Hence, as part of its strategy for sustainable development, Henkel is also focusing on protecting the water resources available worldwide. The objective is to constantly reduce water consumption during the manufacture and use of Henkel products while also avoiding water pollution.**

The approach adopted by Henkel's researchers in the pursuit of these imperatives has been to look at the entire value chain of a product, i.e. from raw material and manufacturing process to distribution, use and final disposal. Particularly when developing products for distribution in regions where water is already scarce, reducing water consumption during consumer usage of the product is of paramount importance. Now Tunisia offers a good example of a Henkel product that saves water: for the types of washing machines commonly used in that country, the laundry detergent "Nadhif Semi-Automatic" both prevents excessive foaming and enables the foam formed during washing to be rinsed out more easily. This eliminates the need for an additional rinse cycle, saving valuable water.

At the same time, Henkel is trying to influence customer and consumer behavior through targeted communication activities. For example, to encourage consumers in Europe to conserve valuable resources when using their dishwashers, Henkel participates in the "Save Energy and Water" initiative of the International Association for Soaps, Detergents and Maintenance Products (A.I.S.E.).

Henkel's own production facilities also fall within the range of the activities in its focal area "Water and Wastewater". As a result of numerous projects, water consumption per metric ton of production output at Henkel decreased in the period from 2004 to 2008 by around 35 percent, while the volume of wastewater fell by 40 percent. Henkel now intends to reduce water consumption measured against output by a further 10 percent by 2012.

Over the decades, Henkel has accrued comprehensive experience and expertise in



water management and the protection of surface waters. As early as 1958, the company began to systematically analyze the waters of the river Rhine and its tributaries to determine the level of surfactants – the wash-active substances used in detergents. 1959 saw the introduction of regular ecological quality checks for all of the company's laundry and home care products. With the development of new test methods in the 1960s to determine ingredient biodegradability and the introduction of Persil Phosphate-Free in 1986, Henkel set new standards for the entire detergents industry. The company's latest innovations relate to the development of computer programs designed to simulate river pollution phenomena. The objective: to accurately identify the ecological risks that certain substances represent before they are used. In this undertaking, Henkel's chemical analysts cooperate with other European companies, universities and research institutes, using computer simulations to determine the path taken by the main detergent constituents from domestic discharge and local sewerage to sewage treatment plant through to receiving bodies of water. The knowledge gained will be utilized in order to help provide effective protection of the world's water resources now and into the future.