

Washing-up liquid test results: an ecolabelled product shows by far the best performance

A range of washing-up liquids have been tested by the Association of Conscious Consumers to reveal which detergents are worth buying. Results show how uncomplicated it is to find products that are gentle on the environment and not too risky for health. And, actually, these products clean dishes remarkably well.

A The Association of Conscious Consumers (ACC) decided to test 31 different washing-up liquid brands picked from the ones that supermarkets and drugstores usually offer. In order to present reliable, comparable data, the effectiveness of the test dishwashing had been examined in a laboratory, and according to EU standards. All products were subjected to precisely the same test. First, a number of plates were made dirty and greasy, and then the grimy plates were washed in standing water maintained at 40 degrees, that is, kept at a constant temperature. As for the quantity of the dishwashing liquid used for cleaning the plates, dosage instructions on the label were followed.

In each test case, we counted how many plates we could clean until all the foam in the basin died and non-emulsified fat droplets appeared on the surface of the dishwater, that is, until the water became unsuitable for washing the dishes. The higher the number of plates is, the longer the foam lasts, and the better the product performs.

In addition to performance, however, health and environment records of the products have also been investigated and published by the Association of Conscious Consumers. Safety Data Sheets and labels published by the producer were the main resources for collecting and publishing information on the health and environmental risks of the products. The fact, whether the product is ecolabelled, has been indicated as well. Read more on how the tests were done.

Huge differences in terms of efficiency - but also in price

The tested conventional (non-ecolabelled) and ecolabelled products cost **966 HUF/litre on average, but prices vary a lot** from product to product. The cheapest product is 338 HUF/litre only, whereas the most expensive costs 2664 HUF/litre. (Prices are in unit prices per litre for ease of comparison.)

During the evaluation, we observed that the main ingredients of the products of the same brand are usually the same; the only difference between them being a fragrance (that gives the name to the product) and one or two additional compounds.

Far and away the most effective washing-up liquid is an ecolabelled product

Among the leading products are several certified ecolabelled products, most of which are drugstore chain and supermarket own brands.

Denkmit nature hand dishwashing detergent, DM drugstore chain’s own-brand ecolabelled product, outshines all other contenders. It’s not only that it is ecolabelled, but also, consumers can get it at a reasonable price. It costs 798 HUF / litre, being actually one of the average-priced products. When looking at the performance of the tested washing-up liquids, Jar lemon and Jar sensitive camilla (variants of the same brand) rank second and third, respectively. The two Jars, which are conventional (non-ecolabelled) products, were able to cope with 78 and 56 plates, respectively.

Among the middle-ranked contenders, conventional and ecolabelled products wrestling with each other

Among the 17 middle-ranked contenders, 8 are ecolabelled, with an efficiency of 22 to 48 plates. Among the 8 ecolabelled middle ranked contenders, Lidl own brand **W5 eco lemon** and Müller own brand **Blink eco hand dishwashing detergent**, have proven to be the most effective, having cleaned 48 and 36 plates, respectively.

Unilever’s Seventh generation Lavender and Citrus (two variants of the same brand), could clean 34 and 32 plates, respectively. And while Lidl’s washing-up liquid can be said to be favourable in terms of price / value ratio (700 HUF / litre), the rest of the products in the same category are pricey. Blink, for instance, costs 1180 HUF/ litre, and Seventh generation is 1.800 HUF/ litre.

	PERFORMANCE	PRODUCT	MEAN PRICE	PLATES	PRODUCER	ECO-LABEL	
1.		Denkmit Nature washing up liquid concentrate	798 Ft	85	dm Kft.	✓	
2.		Jar lemon	499 Ft	78	P&G Hungary Kkt.	X	
3.		Jar sensitive with camomille and vitamin E extract	623 Ft	56	P&G Hungary Kkt.	X	
...							
29.		Herbow with washing nuts extract and mango scent	1598 Ft	13	Herbow International Zrt.	X	
30.		Splendid nature concentrate with green tea scent	798 Ft	9	Spar Magyarország Kereskedelmi Kft	✓	
31.		4Max lemon washing up liquid	399 Ft	5	Tesco Global Zrt.	X	



The Green&Safe LIFE-styles is supported by the European Union LIFE program and co-funded by the Hungarian Ministry of Agriculture. Project ID: ENV GIE HU000622 Green & Safe LIFE-styles.



Performance of the tested products varies wildly. **The best performing washing-up liquid cleans 85 plates;** under the same conditions, **the worst performing detergent does only five.** Splendid



A Green&Safe LIFE-styles projektet az Európai Unió LIFE alapja támogatja, az Agrárminisztérium társfinanszírozza. Azonosító: ENV GIE HU000622 Green&Safe LIFE-styles



nature, one of the two products at the bottom of the ranking list, is ecolabelled too, but given its poor performance, it is unlikely that the product can live up to expectations.

Environment and health? Again, consumers can trust ecolabelled products

Performance was only one of the properties of washing-up liquids tested by The Association of Conscious Consumers. The test checked which products are free of risky health and environmental compounds.

Among the risky ingredients, preservatives MIT (Methylisothiazolinone) and BIT (Benzisothiazolinone) are particularly risky from an environmental and physiological point of view. They have a long-lasting, toxic effect on living waters and aquatic life. Furthermore, dermal exposure can produce allergic contact dermatitis. They may also cause skin corrosion and burns. As MIT and BIT are used in very low concentrations (max 1.5 parts per thousand) in the washing-up liquids, the producers are not obliged to indicate them on the Safety Data Sheet. At the same time, and precisely because MIT and BIT are dangerous compounds, they are always indicated on the label of the product.

Those who decide to avoid washing-up liquids containing MIT or BIT, in view of the above considerations, can choose from several products. According to the Association of Conscious Consumers hand dishwashing detergent test results, the following products are performing best. Five of these are ecolabelled.

Generally speaking, gentle dishwashing detergents are unfortunately gentle when it comes to cleaning grimy plates. Among them, the best performing product, **Denkmit ultra sensitive**, has one of the most affordable price, 798 HUF / litre.

Compared to this top product, the middle-ranked contenders are pricey. In terms of performance, Blink eco hand dishwashing detergent and Domul ultrasensitive are not much behind the top product Denkmit (48 plates), cleaning 36 and 25 plates respectively, and they are cheaper than their rivals.

Why should consumers rely on the EU Ecolabel?

According to the Association of Conscious Consumers hand dishwashing detergent test results, opting for the ecolabelled product does not involve any unacceptable compromise from the customer's side. It is a realistic option to use an ecolabelled washing-up liquid, which does the job well and is affordable at the same time.

For most of the consumers, it is a real challenge to recognize and be aware of the ingredients on the label of household products, and to assess the environmental impact they might have is even more difficult. Following [the EU Ecolabel](#), however, consumers can easily make an informed decision among product choices.

The EU Ecolabel, one of the most common labels in Hungary, is a label of environmental excellence, recognised across Europe and worldwide. **The EU Ecolabel takes the whole product life cycle into account.** The EU Ecolabel promotes the circular economy by encouraging producers to generate less waste and CO₂ during the manufacturing process. EU Ecolabel minimises the use of

hazardous substances and substances that may be harmful to the aquatic environment. To qualify for the EU Ecolabel, products have to comply with a tough set of criteria. These environmental criteria are set by a panel of experts, and trademark is independent from the industry. **EU Ecolabel is awarded to products which are less harmful to the environment, in comparison to similar products on the market.**

Association of Conscious Consumers hand dishwashing detergent test in full

Framework for testing

Efficiency - No mess, no grease, just shining clean dishes

The efficiency of washing-up liquids was assessed by the number of plates that a given amount of detergent cleans. The Association of Conscious Consumers wanted to reveal: are ecolabelled washing-up liquids really not efficient enough? Or is this a pure urban legend? For this end, the performance of the dishwashing detergents was lab-tested, according to MSZ 14606:1986 standards.

In order to get reliable, comparable data, plates had been dirtied beforehand. Then the grimy plates were washed in standing water maintained at 40 degrees, that is, kept at a constant temperature. As for the quantity of the dishwashing liquid used for cleaning the plates, dosage instructions on the label were followed. We counted the number of plates cleaned until all the foam in the basin died and non-emulsified fat droplets appeared on the surface of the dishwater, that is, until it became unsuitable for washing the dishes. The higher the number of plates is, the more pieces the washing-up liquid can clean. In other words, the higher the product is scored in terms of 'plates', the less amount of the liquid can and should be used for the same amount of dishes.

What does the EU Ecolabel tell consumers?

The EU Ecolabel is awarded to products and services, of which main environmental impacts are reduced in comparison to similar products on the market. To qualify for the EU Ecolabel, products have to comply with a tough set of criteria. This takes the whole product life cycle into account - including but not limited to production, packaging and waste management. Fitness-for-use criteria are set for product categories.

For most of the consumers, it is a real challenge to recognize and be aware of the ingredients on the label of household products, and to assess the environmental impact they might have is even more difficult. Following the EU Ecolabel, however, consumers can easily make an informed decision. Therefore, when looking at environmental and health impacts of the products, extra points were given for washing-up liquids with an EU Ecolabel - or other, similar and independent ecolabels.

Hazard symbols and harmful ingredients



A Green&Safe LIFE-styles projektet az Európai Unió LIFE alapja támogatja, az Agrárminisztérium társfinanszírozza.
Azonosító: ENV GIE HU000622 Green&Safe LIFE-styles



Among the risky ingredients, preservatives MIT (Methylisothiazolinone) and BIT (Benzisothiazolinone) have been proven to be particularly risky from an environmental and physiological point of view. They have a long-lasting, toxic effect on living waters and aquatic life. Furthermore, dermal exposure can produce allergic contact dermatitis. They may also cause skin corrosion and burns. As MIT and BIT are used in very low concentrations (max 1.5 parts per thousand) in the washing-up liquids, the producers are not obliged to indicate them on the Safety Data Sheet. At the same time, and precisely because MIT and BIT are dangerous compounds, they are always indicated on the label of the product. (Due to the very low concentrations of MIT and BIT, these compounds did not impact significantly the score of the tested products.)



Green&Safe LIFE-styles project is supported by the LIFE programme of the European Union and co-financed by the Hungarian Ministry of Agriculture. Project number: ENV GIE HU000622 Green&Safe LIFE-styles