



Technical Data Sheet

ECOSURF™ Bright 12 Surfactant (70% Aqueous)

Low-foaming nonionic alcohol alkoxyate surfactant which combines premium anti-spotting performance with cleaning benefits in automatic dishwashing detergents.

Features & Benefits

- Low foaming
- Excellent anti-spotting properties
- Low odor
- Liquid format makes for ease of formulation
- Readily biodegradable

Composition

- Fatty alcohol alkoxyate

Applications

- Auto dishwashing detergents
- Hard surface cleaners
- High performance cleaners

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
Cloud point (1 wt. % actives)	°C	20–25
Appearance		Clear liquid
pH		5–9
Viscosity at 25°C	cP	825
Density at 25°C	g/cm ³	1.01
CMC	ppm	27
Surface tension (0.1 wt. % actives)	mN/m	31.6



Application Data

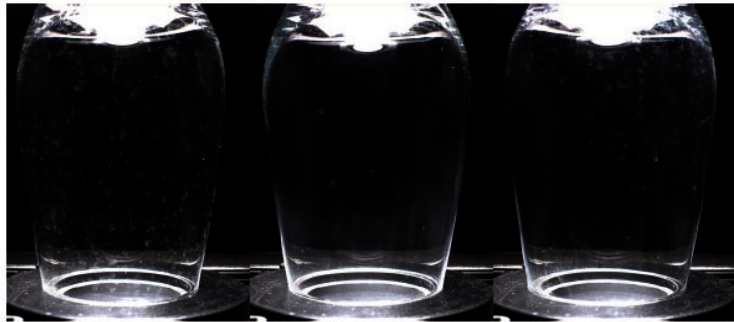
Excellent spot prevention in Aminocarboxylate free Carbonate/Silicate/HEDP formulations (6 cycles; 50 °C; 375 ppm hardness).¹



Standard alcohol
alkoxylate

ECOSURF™ Bright
12 Surfactant

Leading anti-spotting
surfactant



The graphic representations are presented here for illustrative purposes only and should not be construed as product specifications.

Evaluation Protocol Rinse Performance Test

Machine: Miele G1223 GSL

Conditions

Wash temperature: 50°C

Water hardness: 37°fH

Ca2+: Mg2+ (molar): 3:1

Temporary hardness: 23 °fH

50 g frozen ballast soil

Ballast load (porcelain, glass, cutlery)

Evaluation of filming and spotting on glasses: in dark room, light from below



Evaluation Protocol Rinse Performance Test (Cont.)

Formulation

Ingredient	Level (% on solids basis)
Surfactant	6
Sodium citrate	30
Sodium carbonate	30
Sodium percarbonate	15
TAED	4
ACUSOL™ 527G Dispersant	5
Protease	2
Amylase	1
Sodium disilicate (BRITESIL H20)	1
HEDP (Cublen K8514GR)	2
CARBOWAX™ 8000 Polyethylene Glycol	3.5
Benzotriazole	0.5
Total	100% (20 g dose)

These formulation suggestions are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.

Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

Store product in tightly closed original container at temperatures recommended on the product label.

Packaging Information

This product is available in 1000 kg IBC's.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health and Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.



Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

dow.com

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