



ECOSURF™ LF-45 Surfactant

Product Information

Chemical Description

Name: Secondary Alcohol Alkoxylate

Surfactant Type: Nonionic

Benefits

- Excellent wetting
- Low foam
- Stable in caustic
- APEO free
- Outstanding formulation & handling properties
- Readily biodegradable*
- Effective cloud point defoamer

Applications

- Paints & coatings
- High performance cleaners
- Foam control
- Hard surface cleaners
- Pulp & paper
- Textiles
- Oilfield

Typical Physical Properties⁽¹⁾

Cloud Point ⁽²⁾	40-49
HLB ⁽³⁾	12-13
CMC ⁽⁴⁾ / Surface Tension ⁽⁵⁾	28/31.5
Foam Height ⁽⁶⁾	120/10
Pour Point	6°C
Form ⁽⁷⁾	Pale yellow liquid
pH, 1% aq solution	7.0
Viscosity at 40°C (104°F), cSt	49.8
Density at 25°C (77°F), g/mL	1.013
Density at 40°C (104°F), g/mL	1.002
Flash Pt, Closed Cup, ASTM D93	193°C 380°F (est)

⁽¹⁾ These properties are typical, but do not constitute specifications. ⁽²⁾ Cloud point: °C, 1% Aqueous, ⁽³⁾ HLB Range: <10 w/o emulsifier, > 10 o/w emulsifier, ⁽⁴⁾ Critical micellization concentration: ppm at 25°C, ⁽⁵⁾ Surface tension: dynes/cm at 0.1% actives, 25°C, ⁽⁶⁾ Ross-Miles foam height: mm at 0.1 wt% actives, 25°C ⁽⁷⁾ Form at 25°C

Solubility and Compatibility

- Soluble in water
- Soluble in chlorinated solvents and most polar organic solvents
- Chemically stable in the presence of dilute acids, bases and salts
- Compatible with anionic, cationic, and other nonionic surfactants

Disposal

*Although the ECOSURF™ LF Surfactants are considered readily biodegradable (>60 percent biodegradation within 28 days per OECD 301F) it has been determined that for unused & contaminated product, the preferred options for disposal include sending to a licensed, permitted incinerator or other thermal destruction device. This is consistent with Dow's overall commitment to the Responsible Care Guiding Principles.

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30. This product contains a substance that will be subject to a TSCA Section 5(a)(2) Significant New Use Rule (SNUR) and export notification under TSCA 12(b). Architectural coating formulation processes that operate under zero-discharge of wastewater should not trigger the SNUR conditions but each user should

– May be shared with anyone

assess their operations to assure compliance. The total removal during wastewater treatment is estimated to be > 90% based on Episuite models and demonstrated ready biodegradability. In addition, EPA does not expect significant adverse environmental effects during the uses stated in the PMN submission. These uses included formulation at less than 1% in industrial, commercial and consumer architectural coatings. TSCA 12(b) export notification is not needed when this substance is present in mixtures at less than 1%.

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.

Handling Precautions

Before using this product, consult the Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage.

Storage

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

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 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.

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<http://www.dow.com/surfactants>

ECOSURF™ LF Surfactants are marketed under the TERGITOL™ brand in Canada and Japan.

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