










ECOPOL®* 2106
Sustainable inspiration



polaquimia

Ecosustainable Chemical Innovation

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Ecopol®* 2106

Ecopol®* 2106 is a biodegradable nonionic surfactant. This surfactant is a product based on renewable and natural sources. Ecopol®* 2106 is excellent candidate for use in systems also known as “Green Products”.

Table 1. Physical and Chemical properties.⁽¹⁾

Property	Ecopol®* 2106
HLB	13.5
Active content (%)	100.0
Appearance at 25°C	Dark amber liquid
Moisture Karl Fischer (%)	1.0 max.
pH at 1 % in water	6.0-8.0
Flash Point (°C)	>180.0
Viscosity at 25°C (cP)	479.9
Cloud point (°C)	68.0-77.0 ^A
Ross-Miles foam test initial / 5 min (cm)+	10.0 / 8.5
Surface tension (dynes/cm) ⁺⁺	32.8

⁽¹⁾ Typical properties, not to be construed as specification. ^A Alcoholic solution with NaCl at 0.5%.

⁺ Ross-Miles foam test, 0.1 wt% at 25°C. ⁺⁺ Fischer Tensiometer, 0.1 wt% at 25°C.





Characteristics

Solubility

Ecopol® 2106 displays very good solubility in a wide range of common solvents.

Table 2. Solubility of Ecopol® 2106 in solvents (5 wt% at 25°C).

Solvent	Ecopol® 2106
Ethanol	Dispersible
Isopropyl Alcohol	Dispersible
DGM	Dispersible
DPM	Dispersible

DGM = Diethylene glycol monobutyl ether DPM = Dipropylene glycol monomethyl ether

■ Insoluble
 ■ Soluble (opalescent)
 ■ Dispersible

Electrolytes

Ecopol® 2106 has good solubility in electrolyte solutions.

Table 3. Solubility in electrolyte solution (10 wt% Ecopol® 2106, 5% at 25°C).

Electrolyte	Ecopol® 2106
HCl, 5%	Dispersible
NaCl, 5%	Dispersible
Potassium Tripolyphosphate, 5%	Dispersible
NaOH, 5%	Insoluble

Water solubility

Ecopol® 2106, on a wide range of concentrations, exhibits excellent solubility in water, being an ideal feature for their handling and formulation.

Table 4. Solubility in water (wt% Ecopol® 2106 in aqueous solution at 25°C).

Temperature	Concentration of Ecopol® 2106 (wt%)								
	10 %	20 %	30 %	40 %	50 %	60 %	70 %	80 %	90 %
25 °C	Dispersible	Dispersible	Dispersible	Dispersible	Dispersible	Dispersible	Dispersible	Dispersible	Dispersible
40 °C	Dispersible	Dispersible	Dispersible	Dispersible	Dispersible	Dispersible	Dispersible	Dispersible	Dispersible

■ Soluble

Acid and alkaline stability

Ecopol® 2106 has excellent strength characteristics and stability in acidic solutions, making it applicable in various manufacturing processes.

Figure 1. Acid resistance (1 wt% surfactant at 25°C)

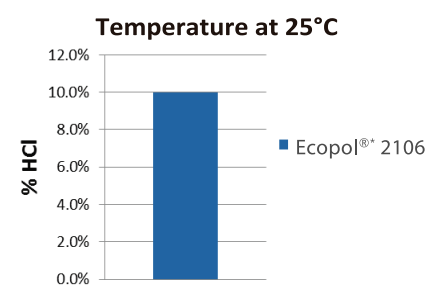


Figure 2. Acid resistance (1 wt% surfactant at 40°C)

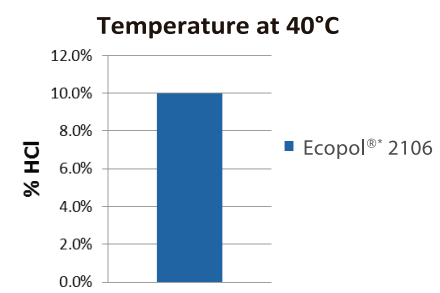




Figure 3. Viscosity at different temperatures (Active content 100%).

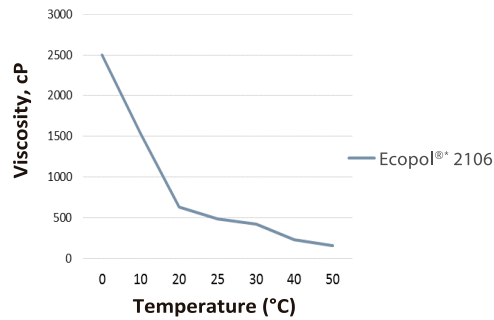
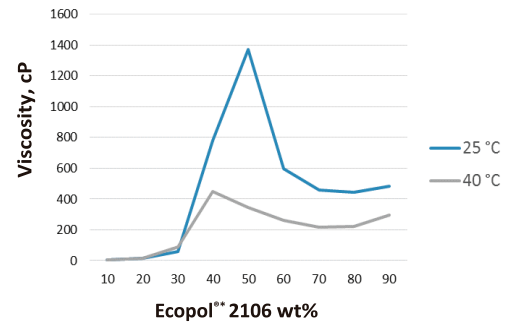


Figure 4. Viscosity in aqueous solution at 25°C & 40°C.



Viscosity

Ecopol®* 2106, in aqueous solution, has low viscosities, which allow easy handling.

Biodegradability

Ecopol®* 2106 is biodegradable > 60 percent biodegradation within 28 days. (2)

Suggested use

	Industry				
	Agrochemicals	Detergents & cleaning products	Textile	Paints	Leather - Tannery
Ecopol®* 2106					



Please contact us for more information about Ecopol®* 2106.

(2) Method based on:
 USEPA 40 CFR 796.3200-1995
 ASTM D2667. Standard Test Method for Biodegradability of Alkylbenzene Sulfonates.
 ASTM E1625. Standard Test Method for Determining Biodegradability of Organic Chemicals.
 ®* Brand registration on process.



For more information contact us:

