

Brij™ Series

Polyoxyethylene (POE) fatty ethers

The **BRIJ SERIES** of surfactants are polyoxyethylene vegetable-based fatty ethers derived from lauryl, cetyl, stearyl and oleyl alcohols. **BRIJ** surfactants are stable to acids and alkalies beyond the pH range that ester type emulsifiers can withstand. Hence, the **BRIJ SERIES** are useful for emulsifying fats and oils in highly acidic or alkaline media. The series contains both hydrophilic and lipophilic products. Depending on the HLB, **BRIJ** surfactants can be used to form either oil-in-water (O/W) emulsions or water-in-oil (W/O) emulsions, solubilize oils and improve wetting. These products are widely used in personal care, fiber finish and HI&I cleaning, crop protection, paints and coatings, adhesives and other industrial applications.

Product Range

Croda offers a wide variety of vegetable-based fatty ethers. The products available in the **BRIJ SERIES** are listed below with their corresponding INCI name appearing in the second column:

Product name	Chemical description
BRIJ CS20	Ceteareth-20
BRIJ C2	Ceteth-2
BRIJ C10	Ceteth-10
BRIJ C20	Ceteth-20
BRIJ IC20	Isoceteth-20
BRIJ IC20-70	Isoceteth-20 (and) Aqua
BRIJ L4	Laureth-4
BRIJ L23	Laureth-23
BRIJ L23-69	Laureth-23 (and) Aqua
BRIJ O2	Oleth-2
BRIJ O3	Oleth-3
BRIJ O5	Oleth-5
BRIJ O10	Oleth-10
BRIJ O20	Oleth-20
BRIJ S2	Steareth-2
BRIJ S10	Steareth-10
BRIJ S20	Steareth-20
BRIJ S100	Steareth-100
BRIJ S721	Steareth-21

Typical Analyses

Product	HLB	Appearance ¹	Pour Point ²
BRIJ CS20	15.7	Solid	-
BRIJ C2	5.3	White waxy solid	33°C
BRIJ C10	12.9	White waxy solid	31°C
BRIJ C20	15.7	White waxy solid	38°C
BRIJ IC20	15.7	Solid	-
BRIJ IC20-70	15.7	Liquid	-
BRIJ L4	9.7	Colorless liquid	2°C
BRIJ L23	16.9	White waxy solid	33°C
BRIJ L23-69	16.9	Colorless Liquid or gel	-
BRIJ O2	4.9	Pale yellow liquid	10°C
BRIJ O3	6.6	Off white hazy liquid	-
BRIJ O5	8.8	Off white hazy liquid	-
BRIJ O10	12.4	Pale yellow liquid	10°C
BRIJ O20	15.3	Pale yellow liquid	10°C
BRIJ S2	4.9	White waxy solid	43°C
BRIJ S10	12.4	White waxy solid	38°C
BRIJ S20	15.3	White waxy solid	38°C
BRIJ S100	18.8	White to pale yellow waxy solid	55°C
BRIJ S721	15.5	White waxy solid or white powder	-

- 1) Color and form at 25°C determined visually. An approximation of color intensity is indicated by comparison with Gardner standards as follows:
 Colorless-light yellow < 1-2 Gardner units
 Yellow 2-7 Gardner units
 Amber 7-10 Gardner units
- 2) Pour point: ASTM-D-97-47 method.

Solubilities*

Product	Water	Ethanol	Cottonseed Oil	Mineral Oil	Propylene Glycol
BRIJ L4	D	S	D	D	S
BRIJ L23	S	S	I	I	S
BRIJ L23-69	S	S	I	I	S
BRIJ C2	I	S	D	H	D
BRIJ C10	D	H	D	I	D
BRIJ C20	S	S	D	I	I
BRIJ S2	I	S	D	I	I
BRIJ S10	D	S	D	D	D
BRIJ S20	S	S	D	I	I
BRIJ S100	S	S	D	I	D
BRIJ S721	D	D	D	I	I
BRIJ O2	I	S	S	S	S
BRIJ O10	S	S	D	H	S
BRIJ O20	S	S	D	I	D

*Solubility at 25°C, 1-10%

Key

S = Soluble, clear

H = Soluble with haze, hazy, turbid

D = Insoluble, self-dispersing or self-emulsifying; on standing, separates into distinct phases

I = Insoluble, gross separation into distinct phases

G = Insoluble, forms gel

Non-warranty

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