ALKOXYLATES

ETHOXYLATES
PROPOXYLATES EO/PO BLOCK COPOLYMERS

Alkoxylation is a chemical process wherein ethylene oxide or EO/PO in desired molar ratios with an alcohol, acid, amine or vegetable oils to make surfactants. We manufacture a wide range of ethoxylates according to our customer's specifications on cloud point, hydroxyl value, saponification value, pH etc.

Natural Oil Ethoxylates

Aryl Alcohol Ethoxylates

Castor Oil – 5 – 200 EO Moles
Nonyl Phenol – 4.5-100 EO Moles

Hydrogenerates Castor Oil-10-100 EO Moles Octyl Phenol – 1-70 EO Moles.

Neem Oil – 10-30 EO Moles
Dodecyl Phenol – 5-20 EO Moles

Soya Oil – 3-10 EO Moles
Styrenated Phenol – 18-25 EO Moles

Linseed Oil -3-10 EO Moles
Phenoxyethanol (>99.5%)

Lanolin Oil 75 EO Moles

Fatty Alcohol Ehoxylates

Fatty Acid Ethoxylates

Oleyl Cetyl Alcohol – 2-60 EO Moles.

Oleic Acid – 2.5-15 EO Moles
Oleyl Alcohol – 5-60 EO Moles

Stearic Acid -8-70 EO Moles
Tri Decyl Alcohol – 3-100 EO Moles

Coconut fatty acid – 10-12 EO Moles
Decyl Alcohol -4-10 EO Moles

Rice Barn Fatty acid 5 EO Moles
Ceto Stearyl Alcohol – 2.5-80 EO Moles.

Fatty Amine Ethoxylates

Lauryl Alcohol – 2.5-25 EO Moles

Stearyl Amine – 10-30 EO Moles
Behnyl Alcohol – 5-40 EO Moles

Tallow Amine and Tallow Diamine – 3-20 EO Moles Stearyl Alcohol- 2-15 EO Moles

Coco Amine – 10-30 EO Moles
2-Ethyl Hexanol – 2.5-4.5 EO Moles

Oleyl Amine – 15-30 EO Moles.
Octyl Decyl (C18/10) Alcohol 2-10 EO Moles

Amino Propyl Behnyl Amine – 10-90 EO Moles Capric/Caprylic Alcohol 2-5 EO Moles

TEA ethoxylates -100 EO Moles
Glycerine – 10-23 EO Moles.

Polysorbates

Polysorbate 20 (Sorbitan Mono Laurate 20 EO)

Polysorbate 40 (Sorbitan Mono Palmitate 20 EO)

Polysorbate 60 (Sorbitan Mono Stearate 20 EO)

Polysorbate 65 (Sorbitan Tri Stearate 20 EO)

Polysorbate 80 (Sorbitan Mono Oleate 20 EO)

Polysorbate 81 (Sorbitan Mono Oleate 5 EO)

Polysorbate 85 (Sorbitan Tri Oleate 20 EO)

EO-PO Copolymers

EO-PO (30) polymer, 40% EO	(L-64)
EO-PO (30) polymer, 10% EO	(L-61)
EO-PO (30) polymer, 20% EO	(L-62)
EO-PO (39) polymer, 40% EI	(P-84)
EO-PO (39) Polymer, 50% EO	(P-85)
EO-PO Polymer Mol. Wt. 3150	(25 R2)
EO-PO Polymer Mol. Wt. 2150	(17 R2)
EO-PO (56) Polymer, 80% EO	(L-68)
EO-PO 930) Polymer, 80% EO	(F-108)
EO-PO Polymer, Mol Wt 3800	(L-101)
EO-PO Polymer, Mol Wt 1100	(L-31)
EO-PO Polymer, Mol Wt 5000	(F-38)
EO-PO Polymer, Mol Wt 2200	(L-44)
EO-PO Polymer, Mol Wt 2750	(L-81)
EO-PO Polymer, Mol Wt 2650	(17R4)
EO-PO Polymer, Mol Wt 3600	(25R4)
EO-PO Polymer, Mol Wt 7700	(F-87)
EO-PO Polymer, Mol Wt 12600	(F-127)
EO-PO Polymer, Mol Wt 4600	(P-94)
EO-PO Polymer, Mol Wt 3600	(25R4)

MPEGs

Methoxy PEG 400-5000 MW

APEGs

Allyl PEG upto 5000 MW

Polythylene Glycols

Polyethylene glycols (PEGs)-200, 400, 600, 800,1500, 4000,6000,8000, 12000,20000 Mol.wt.

EO/PO CO-Polymers (APEO-free products)

Tridecyl Alcohol EO/PO

Lauryl Alcohol EO/PO

Decyl Alcohol EO/PO

Oleyl Cetyl Alcohol EO/PO

Oleyl Alcohol EO/PO

Stearyl Alcohol EO/PO

Glycerol based Polyol (Mol. Wt. 4800)

Butanol EO/PO Copolymer (R) Mol.Wt. 1450

Butanol EO/PO Copolymer (R) Mol Wt. 1650

Butanol EO/PO Copolymer (R) Mol Wt. 4000

Bisphenol A-2 Mole PO

Castor Oil EO/PO

Ethylene Diamine 4PO, 4EO

Polyglycerates

Polyethylene Glycerol Mono Oleate -200-600 Mole EO

Polyethylene Glycerol Di Oleate-200-600 Mole EO

Polyethylene Glycerol Di Stearate- 200-600 Mole EO

Specialty Ethoxylates

N-2-Hydroxyethyl Morpholine

N,N-Bis(Hydroxyethyl) Aniline

NP Resin ethoxylates X Mole EO

Hydroxyethyl Methacrylate (>95% purity,Crude)

Alkanolamide ethoxylates (CMEA-3/5EO)

End-Capped (benzyl) alkoxylates

Methacrylic acid ehtoxylates 4-10 EO Moles

Acrylinic Diol ethoxilates (TMDD-20,40,65,85)

Salt-free alkoxylates (Na/K <10ppm)

Methyl ester ethoxylates

Narrow Range Alkoxylates (Harcros Patented Cat.)

SULFATES & SULFOUCCINATES

Sulfated fatty alcohols have excellent emulsifying, wetting, lime soap dispersing and foaming properties. They also have high electrolyte tolerance. Alkyl ether sulphated (ethoxylates) also show improved water solubility and resistance to hardness. These products are widely used in emulsion polymerization, cosmetic formulations, detergents and textile industry. We offer a variety of sulphates based on natural and synthetic alcohols and ethodylates. Our plant has exclusive facility for sulfonation using Oleum and other sulphating agent. We also offer phenol and naphthalene sulfonates for leather industry.

2-Ethylhexyl Suphate

NonylPhenol-4.5EO Sulphate

Octyl Phenol-25EO Sulphate

EO-PO Copolymer Sulphate

Castor Oil-25EO Sulphate

C11 alcohol-7EO Sulphate (APEO-Free)

Tridecyl Alcohol-25 Sulphate (APEO-Free)

Allyl alcohol 10EO sulnate (ammonium salt)

Phenol sulfonate (oleum based)

Napthalene sulfonate (oleum based)

Sulfosuccinic mono- and di-esters are used as emulsifiers in polymerization processes. They are highly effective wetting agents and are used in various industry segments. We can offer a wide range of sulfosuccinate esters based on different alkyl groups and can customize the properties as per requirement. Sulfosuccenate products are available in solution with different solvents such as linear alcohols or PEGs/PPGs.

DiOctyl Sodium Sulfosuccenate

Disodium Lareth(3) Sulfosuccinate

DiLauryl Sodium Sulfosuccenate

DiTriDecyl Sodium Sulfosuccenate

CocoMonoethanolamide Sulfosuccenate

Disodium Oleic-(5) Sulfosuccinate

Custom Sulfosuccenates of ethoxylates

ESTERS

Ester are formed by the reaction of an alcohol and an acid under basic or acid conditions. Esters have a wide range of applications in every industry segment. We can offers a comprehensive list of esters as per required specifications.

Glycol Esters

We can offer a comprehensive range of esters based on ethylene glycol/propylene glycol and fatty acids such as Stearic, lauric, oleic and palmitic. We offer both, mono and di-esters. Glycol esters are used as pearlizing agents in shampoos, cleansing creams, liquid soaps, bath gels. Propylene glycol esters also have applications as industrial solvents, emulsifies, in antifreeze, paints and coatings and lubricants.

Ethylene Glycol Mono Stearate

Ethylene Glycol Di Stearate

Propylene Glycol Mono Strearates

Propylene glycol Di Stearate

Apart from MEG/PPG, we also offer a wide range of polyglycol esters. PEG 200-6000 (MW) mono and di-esters are fatty acids. Polyglycol esters are widely used in the formulation of emulsifier blends, thickeners, resin plasticizers, emollients, pacifiers, spreading agents, wetting and dispersing agents and viscosity builders. Certain speciality polyglycol esters have applications in metal working, pulp and paper, textile and as defoamers in latex paints.

PEG (MW)	**ESTER TYPE**	**FATTY ACID**
200	Mono/Di	Stearic/Lauric/Palmitic/Oleic
400	Mono/Di	Stearic/Lauric/Palmitic/Oleic
600	Mono/Di	Stearic/Lauric/Palmitic/Oleic
1000	Mono/Di	Stearic/Lauric/Palmitic/Oleic
2000	Mono/Di	Stearic/Lauric/Palmitic/Oleic
4000	Mono/Di	Stearic/Lauric/Palmitic/Oleic
6000	Mono/Di	Stearic/Lauric/Palmitic/Oleic

Methoxy PEG Esters

There are fatty acid esters of ethoxylated methanol. We can offer these esters either by esterification route of by ethoxylation of methyl esters using Harcros patented catalyst.

Methoxy PEG 350 Laurate

Methoxy PEG 350 Oleate

Glycerol Esters.

Glycerine can be reacted with various fatty acids to give their corresponding Mono/Di or tri esters. Glycerol esters are widely used as food additives, preservatives, as thickeners, emulsifiers, in cosmetics, leather, lubricant and other industries. We offers a wide range of Glycerol esters.

Glycerol Mono Stearate (40%) NSE	Glycerol Mono Oleate
Glycerol Mono Stearate (SE)	Glycerol Tri Oleate
Glycerol Tri Stearate	Glycerol (PEG-7) Cocoate
Glycerol (PEG-3) Mono Stearate	Glycin Dilaurate (alkoxylate)
Glycerol (PEG-10) Mono Stearate	PEG-10-Mono/Di Glyceride
Glycerol Mono Laurate	

Sorbitan esters and Polysorbates

Sorbitan esters are made from the reaction of sorbitol and various fatty acids. These esters have wide applications as emulsifies in food products, as dispersing agents, as machining fluids, in coatings, in lubricants, pharmaceutics. Their corresponding ethoxylated products have excellent emulsifying and stabilizing property and find applications as emulsifies in various industry segments.

Sorbitan Mono Laurate (SML)	Sorbitan Sesqui Oleate (SSO)
Sorbitan Mono Palmitate (SMP)	Polysorbate 20 (SML-20EO)
Sorbitan Mono Stearate (SMS)	Polysorbate 40 (SMP-20EO)
Sorbitan Tri Stearate (STS)	Polysorbate 60 (SMS-20EO)
Sorbitan Mono Oleate (SMO 40/70)	Polysorbate 65 (STS-20EO)
Sorbitan RI Oleate (STO)	Polysorbate 80 (SMO-20EO)

***Oleic esters can be offered a sOleic 40% and Oleic 70% min content.**

Other Fatty Esters:

We offers a wide range of fatty esters based on variety fatty acids and fatty alcohols. These esters are often used in textile lubricants, as viscosity builders, in cosmetics as emulsifiers as rust inhibitors, as synthetic defamers, as pigment carrying agents etc. Fatty esters may be solid or liquid form. Behenyl Esters are widely used as emulsifies. They also have excellent emollient properties. They make the skin smoother and prevent moisture loss. They improve rub-out of formulas and controls viscosity

Butyl Stearate	Octyl Oleate	Stearyl Stearate	C1215 Alkyl Benzoate
Butyl Oleate	Cetyl Palmitate	Stearyl Palmitate	C13 Aklyl benzoate
Octyl Stearate	Oleyl Oleate	Stearyl Oleate	Sodium Stearyl Lactylate
Octyl Palmitate	Tridecyl Stearate	behnyl Stearate	Sodium Oleyl Lactylate
Octyl Laurate	Lauryl Oleate	Behnyl Laurate	

PHOSPHATE ESTERS

Phosphate esters are anionic surfactants which are produced by phosphation of fatty alcohols and ethoxylated aliphatic and aromatic alcohols. Compares to other anionic surfactants, phosphate esters offer specific advantages, including stability over a broad pH range, good solubility and corrosion inhibiting properties. Phosphate esters are highly suitable for use as emulsifying agents, wetting agents, anti-stats, corrosion inhibitors and hydro tropes in cleaning formulations. We have dedicated manufacturing facilities for production of mono phosphate esters, di-esters and mixed esters. All our phosphates are based on $p_2o_{s.}$

Butanol Phosphate (mono/Di-ester)
2-Ethylhexyl Phosphate (mono/Di-ester)
Lauryl alcohol (ethoxylated) Phosphate
Tridecyl alcohol phosphate
Tridecyl alcohol (ethoxlated) Phoshpate
Cetyl Alcohol Phosphate
Oleyl alcohol Phosphate
Nonyl Phenol (ethoxylated) Phosphate
Styrenated Phenol(ethoxylated) Phospate
Phenol (ethoxylated) phosphate
Allyl alcohol (ethoxylated) phosphate
Hydroxyethyl methacrylate phosphate
Methacrylic acid (ethoxylated) phosphate
Methacrylic acid (propoxylated) phosphate

MISCELLANEOUS

Amides

Coco Monoethanol amide (CMEA)

Coco Diethanol amide (CDEA)

CMEA-3,5EO moles

Oleic Diethanolamide

Stearic Diethanolamide

Cocofatty acid Aminoethyl ethanolamide 6EO

Octyl betaine

Cocoamidopropyl betaine

Soya amidopropyl betaine

Amine Oxides

Lauryl amine oxide

Octyl amine oxide

Carboxylic Acids & salts

Oleth-5EO Carboxylic acid

PEG600 Di Carboxylic acid

Imidazolines (DETA/AEEA)

Oleic Imidazoline

Coconut Imidazoline

Triazines (H2R Scavengers)

Monoethanol amine Triazine (50-75%)

Mono Methylamine Triazine (40%)

Carbamates

Sodium Dimethyl Dithio carbamate (SDMDC)-40%

Potassium DimethylDithio carbamate (KDMDC)-40%

Ethylene Bis Dithio Carbamate (NABAM)-40%

Betaines

Coco Betaine

Monomer Esters

Behnyl alcohol ethoxylated Methacrylate (BEM)

CSA ethoxylated Methacrylate (CEM)

Styrenated Phenol ethoxylated Methacrylate (SEM)

Lauryl alcohol ethoxylated Methacrylate (LEM)

Monomer Phosphates

Methacrylic acid ethoxylated phosphate

Methacrylic acid propoxylated phosphate

Other copolymers

Phenol-formaldehyde resins

Urea-formaldehyde resins

Melamine formaldehyde resins

Dimethyl amine Epichlorihydrin copolymers

Phosphonates

Amino tris (methylene phosphonic acid)-50%