

Comedogenicity

When formulating compounds for topical application to the face and neck consideration should be given to the vehicle ingredients and their potential to produce acne comedones. The following tables provide a list of various chemicals used as ingredients in creams, lotions, gels, and liquids intended for topical use and their comedogenic probability. Comedogenicity of the chemicals listed was determined by studies performed on rabbit ears or human subjects using the chemical at a 10% concentration in Propylene Glycol. Keep in mind that chemicals listed as “moderate” or “high” may not necessarily cause acne on all skin types or even at small concentrations on acne prone skin.

High Comedogenic Probability		
Acetylated Lanolin Alcohol	Isopropyl Isostearate	Peach Kernel Oil
Algae Extract	Isopropyl Linolate	PEG 16 Lanolin
Algin	Isopropyl Myristate	Polyglyceryl-3 Diisostearate
Carrageenan	Isopropyl Palmitate	Potassium Chloride
Cetearyl Alcohol + Cetareth 20	Isostearyl Isostearate	PPG 5 Ceteth 10 Phosphate
Cetyl Acetate	Laureth 4	Propylene Glycol Monostearate
Cocoa Butter	Lauric Acid	Red Algae
Coconut Butter	Myristyl Lactate	Sodium Chloride
Coconut Oil	Myristyl Myristate	Sodium Lauryl Sulfate
Ethylhexyl Palmitate	Octyl Palmitate	Steareth 10
Glyceryl-3 Diisostearate	Octyl Stearate	Stearyl Heptanoate
Hexadecyl Alcohol	Oleic Acid	Wheat Germ Oil
Isocetyl Alcohol	Oleth 3	Xylene
Isocetyl Stearate	Oleyl Alcohol	

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Medium Comedogenic Probability		
Ascorbyl Palmitate	Dioctyl Succinate	PEG 8 Stearate
Avocado Oil	Eicosanoic Acid	Pentaerythritol Tetra Isostearate
Butyl Stearate	Ethylhexyl Pelargonate	PG Caprylate/Caprate
Capric Acid	Evening Primrose Oil	PG Dipelargonate
Capric/Caprylic Triglycerides	Glyceryl Stearate (Self-Emulsifying)	PG Monostearate
Ceteareth 20	Hexylene Glycol	Phytantriol
Cetearyl Alcohol	Hydrogenated Vegetable Oil	PPG 10 Cetyl Ether
Cetyl Alcohol	Isostearyl Neopentanoate	PPG 12 PEG 65 Lanolin Oil
Corn Oil	Joboba Oil Sulfated	PPG 2 Myristyl Propionate
Cottonseed Oil	Laneth-10	Sandalwood Seed Oil
D&C Red #17	Laureth 23	Shark Liver Oil
D&C Red #19	Mink Oil	Sodium Laureth Sulfate
D&C Red #21	Myristic Acid	Sorbitan Oleate
D&C Red #27	Myristyl Alcohol	Soybean Oil
D&C Red #3	Oleth 10	Steareth 2
D&C Red #30	Oleth 3 Phosphate	Steareth 20
D&C Red #36	Oleth 5	Stearic Acid
D&C Red #4	Palmitic Acid	Stearic Acid TEA
D&C Red #40	Peanut Oil	Stearyl Alcohol
Decyl Oleate	PEG 100 Distearate	Triethanolamine
Di (2 ethylhexyl) Succinate	PEG 150 Distearate	Wheat Germ Glyceride
Dioctyl Malate	PEG 200 Dilaurate	

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Low Comedogenic Probability		
Acetone	Glycereth-26	PG Dicaprylate/Caprate
Acetylated Lanolin	Glycerin	PG Laurate
Alcohol SD 40	Glyceryl Stearate	Phenoxyethylparaben
Allantoin	Glyceryl Tricaprylo/caprate	Polyethylene Glycol 200 (PEG 200)
Almond Oil	Grapeseed Oil	Polyethylene Glycol 300 (PEG 300)
Amoniomethylpropionate	Hydrogenated Castor Oil	Polyethylene Glycol 400 (PEG 400)
Apricot Kernal Oil	Hydrogenated Polyisobutane	Polypentaerythritol Tetralaurate
Babassu Oil	Hydrolyzed Animal Protein	Polysorbate 20
Behenic Acid	Hydroxypropylcellulose	Polysorbate 80
Behenyl Erucate	Iron Oxides	Povidone
Behenyl Triglyceride	Isopropyl Alcohol	PPG 30 Cetyl Ester
Bentonite	Jobba Oil	PPG 50 Cetyl Ester
Black Walnut Extract	Kaolin	Propylene Glycol
Candelilla Wax	Lanolin Alcohol	Propylparaben
Caprylic Acid	Lanolin Anhydrous	Safflower Oil
Carbomer 940	Lanolin Oil	Sesame Oil
Carboxymethyl cellulose	Lanolin Wax	Simethicone
Carboxypropylcellulose	Lithium Stearate	Sodium Hyaluronate
Carmine	Magnesium Aluminum Silicate	Sodium PCA
Carnuba Wax	Magnesium Stearate	Sorbitan Isostearate
Castor Oil	Methylparaben	Sorbitan Laurate
Ceresin Wax	Mineral Oil	Sorbitan Sesquioleate
Cetyl Ester	Octinoxate	Sorbitan Stearate
Cetyl Palmitate	Octisalate	Sorbitol
Chalmoogra Oil	Octyl Dimethyl PABA	Soya Sterol
Chamomile Extract	Octyldodecyl Stearate	Soybean Oil Maleated

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Low Comedogenic Probability		
Cholesterol	Octyldodecyl Stearoyl Stearate	Squalane
Choeth 24	Oleth 20	Steareth 100
Chondroitin Sulfate	Olive Oil	Sterol Esters
Cyclomethicone	Oxybenzone	Sucrose Distearate
D&C Red #33	Panthenol	Sucrose Stearate
D&C Red #6	Papain	Sulfur Precipitated
D&C Red #7	PEG 10 Soya Sterol	Sunflower Oil
D&C Red #9	PEG 100 Stearate	Talc
Diisopropyl Adipate	PEG 120 Methyl Glucose Dioleate	Titanium Dioxide
Diisopropyl Dimerate	PEG 20 Stearate	Triacetin
Dimethicone	PEG 40 Castor Oil	Tridecyl Neopentanoate
Emulsifying Wax NF	PEG 40 Sorbitan Laurate	Ultramarine Violet
Ethoxy Diglycol	PEG 5 Soya Sterol	Vitamin A Palmitate
Ethyl Ether	PEG 75 Lanolin	Vitamin E
Ethylene Glycol Monomethyl Ether (EGME)	PEG 78 Glyceryl Monococoate	Vitamin E Acetate
Ethylene Glycol Monostearate	PEG 8 Castor Oil	Wax, Bees (White or Yellow)
Glucose Glutamate	Pentaerythritol Tetra Capra/Caprylate	Zinc Stearate

REFERENCES

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