

Topical pharmaceutical excipients for drug delivery

Improve the efficacy and compliance of your topical pharmaceutical formulations with DuPont's versatile range of silicone excipients



The DuPont™ Liveo™ Topical Pharmaceutical Excipient product range is composed of silicone-based materials that allow you to formulate innovative solutions for the efficient delivery of your active pharmaceutical ingredients (APIs) in topical forms such as creams, lotions, gels, ointments, sprays or sticks.

Benefiting from more than 70 years of experience in designing silicone-based systems, DuPont will help you accelerate the development of your new topical galenic forms by providing test data that demonstrates functional benefits, such as *in-vitro* drug delivery data based on drug models, occlusivity levels and substantivity profiles.

Liveo™ Silicone Excipients enable unique and aesthetically appealing formulations, making your finished pharmaceutical dosage forms easier to apply and more pleasant to use, thereby helping increase patient compliance. To ensure consistent high quality, Liveo™ Topical Pharmaceutical Excipients are packaged and tested according to applicable Good Manufacturing Practices (GMP) quidelines.

Product regulatory information, elemental impurities and summary of health data are available upon request. Select U.S. FDA drug master files (DMFs) and European Pharmacopoeia Certifications of Suitability (CEP) are available for registration purposes.



Topical pharmaceutical excipient product range

DuPont[™] Liveo[™] Fluids

	Product name	Chemical description	Appearance	Function(s) & application(s)	Features
Volatile fluids	Liveo™ Q7-9180 Silicone Fluid 0.65 cSt ⁽¹⁾	Hexamethyldisiloxane or Disiloxane	Clear	· Volatile solvent	 Fast evaporation rate Carrier for spray Spreading agent Smooth feel; nongreasy
	Liveo™ Q7-9180 Silicone Fluid 1.0 cSt ⁽¹⁾	Trisiloxane	liquid		
	Liveo™ ST-Cyclomethicone 5-NF ⁽²⁾	Cyclopentasiloxane	Clear	· Volatile solvent	Soft, silky feelSpreading agentNon-greasyCarrier for spray
	Liveo™ Cyclomethicone 56-NF ⁽²⁾	Cyclopentasiloxane & Cyclohexasiloxane	liquid		
Non-volatile fluids	Liveo™ Q7-9120 Silicone Dimethicone Fluid 20, 100, 350, 500, 1,000 and 12,500 cSt ⁽³⁾	Dimethicone	Clear, colorless liquid	Non-volatile solventEmollientLubricantSpreading agent	 Skin protectancy; substantivity on skin Lubrication and spreadability Non-occlusive Water repellent Smooth feel
	Liveo™ Dimethiconol 40	Dimethiconol	Clear liquid	SolventSolubilizerLubricant	Excellent spreading agentLubricantCompatible with hydrophilic activesNon-greasy

(I)Low cyclosiloxanes content (below 0.1%), which is below the substance of very high concern (SVHC) threshold proposed by REACH regulation (EC) No1907/2006.

⁽²⁾Tested to meet the United States National Formulary monograph for Cyclomethicone NF.

⁽³⁾Tested according to and complies with USP-NF non-parenteral requirements for Dimethicone and with all EP requirements for Dimethicone monograph.



DuPont[™] Liveo[™] Gum Blends, Crosslinked Polymer Blends & Resin Blends

	Product name	Chemical description	Appearance	Carrier	Function(s) & application(s)	Features
Gum blends	Liveo™ Dimethiconol Blend 20 ⁽¹⁾	Dimethicone and Dimethiconol	Clear liquid	Dimethicone, 20 cSt	· Film-former	 Long-lasting after-feel Gives silky-smooth, non-greasy after-feel Non-occlusive Film-forming agent Improves spreadability
	Liveo™ Silmogen Carrier ⁽¹⁾	Hexamethyl- disiloxane and Dimethiconol	Clear liquid	Hexamethyl- disiloxane	• Film-former in volatile solvent	Long-lasting after- feelQuick evaporation rateFilm-forming agent
Crosslinked polymer blends	Liveo™ TE-9320 Silicone Elastomer Blend ⁽¹⁾	Dimethicone and Dimethicone Crosspolymer		Dimethicone, 2 cSt	Rheology modifierSensorial agent	 Silky aesthetic properties: smooth, dry feel Matte effect; reduced shine on skin Rheology modifier to adjust formulation consistency; thickener for silicone-containing formulations Non-occlusive
	Liveo™TE-9330 Silicone Elastomer Blend ⁽¹⁾	Dimethicone and Dimethicone Crosspolymer	Translucent gel	Dimethicone, 5 cSt		
Resin blends	Liveo™ TE-9720 Resin Blend ⁽¹⁾	Dimethicone and Trimethylsiloxy- silicate	Clear liquid	Dimethicone, 100 cSt	· Film-former	Film-former (permeable film)Long-lasting filmWash-off resistance
	Liveo™ TE-9721 Resin Blend ⁽¹⁾	Caprylyl Methicone and Trimethylsiloxy- silicate	Cieai iiquiu	Caprylyl methicone		

⁽¹⁾Low cyclosiloxanes content (below 0.1%), which is below the substance of very high concern (SVHC) threshold proposed by REACH regulation (EC) No1907/2006.



About DuPont™ Liveo™ Healthcare Solutions

DuPont™ Liveo™ is a globally recognized leader in technology for a broad range of innovations in medical devices, biopharmaceutical processing and pharmaceutical solutions. DuPont high-performance materials help create safer healthcare environments and protect the health of patients and healthcare providers worldwide. We help enable smarter healthcare and positive patient outcomes.

For more information about Liveo™ Silicone Excipients

Visit **liveo.dupont.com** – or scan the QR code at right to be taken directly to our silicone excipients web page.





To learn more about DuPont™ Liveo™ Healthcare Solutions, visit **liveo.dupont.com**.





Smarter Healthcare.
Positive Patient Outcomes.

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