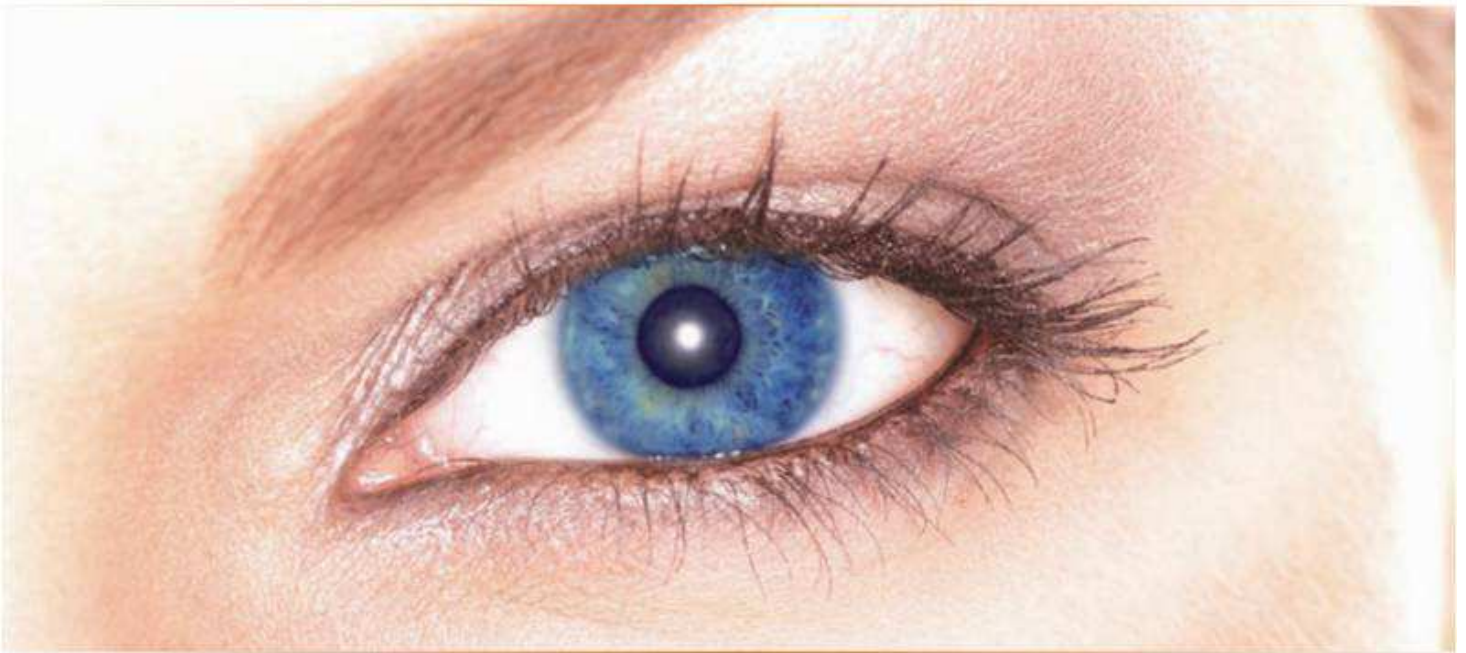




**Biesterfeld**

*Biesterfeld Spezialchemie GmbH*



# **Biesterfeld Spezialchemie**

LifeScience Pharma

Product Portfolio  
Topical Application

Vers. 1

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# Our Principals

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## Active Pharmaceutical Ingredients

### Dow Corning®

#### Simeticone

Product	Description	Characteristics
Q7-2243 LVA, Simethicone USP	<p>Silicone antifoam</p> <p>Low volatile</p> <p>Simeticone EP</p> <p>Certificate of suitability (CEP)</p> <p>Simethicone USP; US-DMF</p> <p>ICH Q7 GMP</p> <p>FDA registered production site</p>	<p>Defoamer</p> <ul style="list-style-type: none"> <li>- anti-whitening</li> <li>- foam control in medical and pharmaceutical applications</li> </ul>

#### Dimeticone

Product	Description	Characteristics
<p>Q7-9120 Silicone Fluid 20 cSt</p> <p>100 cSt</p> <p>350 cSt</p> <p>1000 cSt</p> <p>12500 cSt</p>	<p>Non-volatile silicone fluid</p> <p>Polydimethylsiloxane, PDMS</p> <p>Dimethicone NF; US-DMF</p> <p>Dimeticone/Silicone Oil EP</p> <p>Certificate of suitability (CEP)</p> <p>Meets the requirements of the "Skin Protectant Drug Products for Over-the-Counter Human Use" (21 CFR Part 347.10)</p> <p>ICH Q7 GMP</p> <p>FDA registered production site</p>	<p>Skin protectant</p> <ul style="list-style-type: none"> <li>- good spreading agent</li> <li>- water-repellent</li> <li>- non-occlusive</li> </ul>

## Topical Pharmaceutical Excipients

Excipients helping you to formulate topical medicinal products (drug delivery systems) containing Active Pharmaceutical Ingredients (API)

### Dow Corning® - Silicone and Silicone Derivatives

#### Fluids

Product	Description	Characteristics
<b>Q7-9120 Silicone Fluid</b> 20 cSt 100 cSt 350 cSt 1000 cSt 12500 cSt	Non-volatile silicone fluid Polymethylsiloxane (PDMS) Dimethicone NF; US-DMF Dimeticone/Silicone Oil EP Certificate of Suitability (CEP)	Emollient <ul style="list-style-type: none"> <li>- good spreading agent</li> <li>- water-repellent</li> <li>- non-occlusive</li> <li>- lubricant</li> <li>- smooth feel on skin</li> </ul>
<b>ST-Dimethiconol 40</b>	Short, hydroxy-terminated dimeticone US-DMF	Compatible with hydrophilic actives <ul style="list-style-type: none"> <li>- non-greasy</li> <li>- excellent spreading agent</li> <li>- lubricant</li> </ul>

#### Volatiles and Cyclics

Product	Description	Characteristics
<b>Q7-9180 Silicone Fluid</b> 0,65 cSt 1 cSt	Hexamethyldisiloxane Octamethyltrisiloxane US-DMF; TF	Volatile carrier for sprays or semi-solid formulations <ul style="list-style-type: none"> <li>- fast evaporation rate</li> <li>- smooth feel</li> <li>- non-greasy</li> <li>- spreading agent</li> <li>- non-cooling on skin</li> <li>- non-stinging on skin</li> </ul>
<b>ST-Cyclomethicone 5-NF</b> <b>ST-Cyclomethicone 56-NF</b>	Cyclopentasiloxan (D5) Cyclopenta-/Cyclohexasiloxan (D5/D6) Cyclomethicone NF US-DMF; TF	Volatile carrier for sprays or semi-solid formulations <ul style="list-style-type: none"> <li>- good spreading agent</li> <li>- non-greasy</li> <li>- detackifier, smooth feel on skin</li> <li>- non-cooling on skin</li> <li>- non-stinging on skin</li> </ul>

## Blends

Product	Description	Characteristics
<b>Dimethiconol Blend 20</b>	Ultra-high viscosity silicone gum (6 %) in non-volatile dimeticone US-DMF; TF	Non-occlusive film former <ul style="list-style-type: none"> <li>- highly substantive on skin</li> <li>- silky non-greasy feel on skin</li> <li>- improves spreadability</li> <li>- non-occlusive</li> <li>- water-repellent</li> <li>- lubricant</li> </ul>
<b>Silmogen Carrier</b>	Ultra-high viscosity silicone gum (1 %) in hexamethyldisiloxane US-DMF	Carrier for sprays <ul style="list-style-type: none"> <li>- film forming</li> <li>- long lasting substantivity</li> <li>- soft dry smooth feel</li> <li>- wash-off resistance</li> <li>- non-occlusive</li> </ul>
<b>ST-Elastomer 10</b>	Dimeticone crosspolymer (12%) in cyclometicone (D5) US-DMF; TF	Thickener for silicone containing formulations <ul style="list-style-type: none"> <li>- non-greasy</li> <li>- easy to formulate</li> <li>- reduces tackiness of formulations</li> </ul>

## Waxes

Product	Description	Characteristics
<b>Silky Wax 10</b>	Stearyl alcohol and stearoxy trimethylsilane Low melting point silicone wax (53 °C)	Semi-occlusive wax <ul style="list-style-type: none"> <li>- thickener for silicone-containing formulations</li> <li>- water-repellent</li> <li>- matifying effect</li> <li>- reduces tackiness of formulations</li> <li>- emollient on skin</li> </ul>

## Emulsifiers

Product	Description	Characteristics
<b>Emulsifier 10</b>	Alkylmethyl siloxane copolyol Lauryl PEG/PPG – 18/18 methicone US-DMF; TF	Emulsifier for W/O and W/Si emulsion (up to 80 % water content) <ul style="list-style-type: none"> <li>- non-greasy feel</li> <li>- easy to spread</li> <li>- hot and cold processing</li> <li>- light skin conditioning properties</li> <li>- co-emulsifier for O/W emulsions</li> </ul>

## Salicylates - Preservatives

### Parabenes

Product	Description	Grade
Saligin MP	Methylparaben	Methyl p-Hydroxybenzoate EP Methylparaben NF
Saligin EP	Ethylparaben	Ethyl p-Hydroxybenzoate EP Ethylparaben NF
Saligin PP	Propylparaben	Propyl p-Hydroxybenzoate EP Propylparaben NF
Corresponding sodium salts and blends are available on request.		

- IPEC-GMP certificate for Pharmaceutical Excipients (2006)

## Salicylates - Excipients

### Preservative Excipients

Product	Description	Grade
Saliethanol	10 ppm free phenol Preservative	Phenoxyethanol EP
Salidin 20	Preservative Antiseptic	Chlorhexidin Digluconate Solution EP

### Functional Excipients

Product	Description	Grade
Sallitoin	Keratolytic	Allantoin EP
Salicylic Acid	Keratolytic	Salicylic Acid EP
Methyl Salicylate	Wintergreen oil	Methyl Salicylate EP
Sodium Salicylate	Keratolytic Preservative	Sodium Salicylate EP

## CPKelco - Cellulose Derivatives

### Carmellose Sodium

Product	Description	Grade
<b>Cekol</b>	Carmellose sodium, CMC Available in a wide range of viscosity grades	Carmellose Sodium EP Carboxymethylcellulose NF

- Thickener and rheology modifier
- Stabilisation of emulsions and suspensions

## CPKelco - Biogums

### Xanthan gum

Product	Description	Grade
<b>Xantural 11K</b>	Xanthan gum 14 mesh/1,18 mm particle size	Xanthan Gum EP/NF
<b>Xantural 180</b>	Xanthan gum 80 mesh/180 µm particle size	Xanthan Gum EP/NF
<b>Xantural 75</b>	Xanthan gum 200 mesh/75 µm particle size	Xanthan Gum EP/NF

- Quality system based on IPEC-PQG GMP for pharmaceutical excipients
- Thickener, rheology modifier or gel forming agent
- Stabilisation of emulsions and suspensions



## Pectine

Product	Description	Grade
<b>Genu<sup>®</sup> Pectin</b>	Pectin from citrus peel High and low ester pectin Range of specific particle sizes Available in different viscosity grades	Pectin USP (selected grades)

- Gel forming agent
- Textures from gels to structured fluids
- Emulsion/suspension stabilization
- Buffer effect to pH 3-5

## Carrageenan

Product	Description	Grade
<b>Genugel<sup>®</sup> CG-130</b>	Kappa-Carrageenan Firm and brittle gels	Carrageenan NF
<b>Genuvisco<sup>®</sup> CG-131</b>	Iota-Carrageenan Elastic and cohesive gels	Carrageenan NF
<b>Genuvisco<sup>®</sup> CG-129</b>	Lambda-Carrageenan Viscous non-gelling solutions	Carrageenan NF

- Gel forming agent
- Thickener and rheology modifier
- Stabilisation of emulsions, suspensions and foams

## Gellan Gum

Product	Description	Grade
Kelcogel® CG-LA	Gellan gum (low acyl) Firm, non-elastic, brittle gels	Gellan Gum NF
Kelcogel® CG-HA	Gellan gum (high acyl) Soft, very elastic, non-brittle gels	Gellan Gum NF

- Gel forming agent
- Thickener and rheology modifier
- Fluid-gel forming agent
- Controlled drug release formulations

## Tereos Syral

### Polyoles

Product	Description	Grade
Merisorb Pharma	Crystallized sorbitol powder (min. 97 % D-sorbit) Range of specific particle sizes	Sorbitol EP
Merisorb SD Pharma	Spray-dried sorbitol powder (min. 97 % D-sorbit) Range of specific particle sizes	Sorbitol EP
Meritol Pharma	Crystallising sorbitol syrup Non-crystallising sorbitol syrup	Sorbitol liquid (crystallising) EP Sorbitol liquid (non-crystallising) EP

- Quality system based on IPEC-PQG GMP for pharmaceutical excipients
- Humectant

## Topical Ingredients

Ingredients used in topical medical device or medicated skin care applications

### Dow Corning® - Topical Ingredients

#### Fluids

Product	Description	Characteristics
<b>TI-1050 Fluids</b> <b>1.5 cSt</b>	Volatile dimeticone Linear polydimethylsiloxane	Carrier for spray <ul style="list-style-type: none"> <li>- fast evaporation rate</li> <li>- non-greasy and smooth feel</li> <li>- good compatibility with alcohol</li> <li>- good spreading agent</li> <li>- non-cooling on skin</li> </ul>
<b>TI-1050 Fluids</b> <b>5 cSt</b> <b>10 cSt</b>	Low molecular weight dimeticone Linear polydimethylsiloxane Non-volatile	Emollient <ul style="list-style-type: none"> <li>- smooth and tack-free feel on skin</li> <li>- lubrication</li> <li>- spreading agent</li> <li>- non-occlusive</li> </ul>
<b>TI-1050 Fluids</b> <b>50 cSt</b> <b>100 cSt</b> <b>200 cSt</b> <b>350 cSt</b> <b>1,000 cSt</b>	Intermediate molecular weight dimeticone Linear polydimethylsiloxane Non-volatile	Emollient <ul style="list-style-type: none"> <li>- non-greasy feel</li> <li>- non-occlusive</li> <li>- substantivity</li> <li>- lubrication</li> <li>- spreading agent</li> <li>- water repellency</li> </ul>
<b>TI-1050 Fluids</b> <b>12,500 cSt</b> <b>30,000 cSt</b> <b>100,000 cSt</b>	High molecular weight dimeticone Linear polydimethylsiloxane Non-volatile	Emollient <ul style="list-style-type: none"> <li>- substantivity</li> <li>- lubrication</li> <li>- water repellency</li> </ul>

## Speciality Fluids

Product	Description	Characteristics
<b>TI-2011 SPE Specialty Fluid</b>	Water dispersible silicone polyether Peg-12 dimethicone Calculated HLB 12	Carrier <ul style="list-style-type: none"> <li>- solubilizer and compatibilizer for actives and excipients</li> <li>- foam builder</li> <li>- wetting agent</li> <li>- humectant</li> <li>- resin plasticizer</li> <li>- hair detangling</li> </ul>
<b>TI-2021 AMS Specialty Fluid</b>	Caprylyl-modified trisiloxane Moderate volatility	Carrier/solvent <ul style="list-style-type: none"> <li>- good spreading agent</li> <li>- smooth and light after-feel</li> <li>- reduces tackiness and greasy feel of organic oils</li> <li>- dispersing medium for hydrophobic powders</li> <li>- compatibilizer for silicone with organic oils</li> <li>- non-occlusive</li> </ul>

## Blends

Product	Description	Characteristics
<b>TI-3011 Gum Blend</b>	Dimeticone and dimeticonol High molecular weight dimeticonol dispersed in a non-volatile carrier	Emollient <ul style="list-style-type: none"> <li>- film forming agent</li> <li>- non-occlusive barrier film</li> <li>- improves substantivity</li> <li>- wash-off resistance</li> <li>- lubricity</li> <li>- gives a long lasting and silky smooth feel</li> <li>- non-greasy</li> </ul>
<b>TI-3021 Silicone Elastomer Blend</b>	Dimeticone and dimeticone crosspolymer Mixture of high molecular weight Cross linked silicone (14 %) in dimeticone 5 cSt	Emollient <ul style="list-style-type: none"> <li>- silky smooth feel on skin</li> <li>- long lasting skin feel</li> <li>- improves substantivity</li> <li>- rheology modifier</li> <li>- thickener for anhydrous gel and W/O emulsion</li> <li>- non-occlusive</li> </ul>

## Waxes

Product	Description	Characteristics
<b>TI-4021 Semi-Occlusive Wax</b>	C30-45 Alkyldimethylsilyl polypropylsilsesquioxane Silicone wax with added resin character High melting point +/- 66 °C	Structuring agent <ul style="list-style-type: none"> <li>- wash-off resistance</li> <li>- semi-occlusive</li> <li>- helps rheology and texture modification</li> <li>- broad compatibility with organic and silicone material</li> </ul>

## Emulsifier

Product	Description	Characteristics
<b>TI-6021 W/O Formulation Aid</b>	PEG-10 dimethicone Silicone polyether copolymer Calculated HLB 4	Emulsifier <ul style="list-style-type: none"> <li>- emulsifier for W/O and W/Si emulsion</li> <li>- produces low viscosity emulsion</li> <li>- provides good compatibility with organics</li> <li>- allows both cold or hot processing</li> </ul>

## Resins

Product	Description	Characteristics
<b>TI-7012 Solid Resin</b>	MQ resin polymer Trimethylsiloxysilicate Solventless	Film former <ul style="list-style-type: none"> <li>- permeable barrier film</li> <li>- long lasting film</li> <li>- excellent wash-off resistance</li> <li>- non-occlusive</li> <li>- sebum resistance</li> </ul>
<b>TI-7021 Silicone Resin Blend</b>	MQ siloxane resin diluted in a carrier fluid Dimethicone and trimethylsiloxysilicate	Film former <ul style="list-style-type: none"> <li>- permeable film</li> <li>- substantive, long lasting film</li> <li>- excellent wash-off resistance</li> <li>- non-occlusive</li> <li>- ease of formulation</li> </ul>

## Salicylates

### Preservatives (Paraben free/formaldehyde free)

Product	Description	Characteristics
Saliguard <sup>®</sup> BDP	Phenoxyethanol, benzoic acid, dehydroacetic acid	Leave on & rinse off pH: <6 Dosage: 0.2-1.2 %
Saliguard <sup>®</sup> BDHA	Benzyl alcohol, dehydroacetic acid	Leave on & rinse off pH: <6.5 Dosage: 0.2 - 0.8 %
Saliguard <sup>®</sup> PCG	Caprylyl glycol, phenoxyethanol, propylene glycol	Leave on & rinse off pH: 3-10 Dosage: 0.5-1.0 %
Saliguard <sup>®</sup> PG	Caprylyl glycol, phenoxyethanol	Leave on & rinse off pH: 3-10 Dosage: 0.5-1.0 %
Saliguard <sup>®</sup> SP	Sodium benzoate, potassium sorbate	Leave on & rinse Off pH: <5.5 Dosage: 0.5-1.5 %
Saliguard <sup>®</sup> ULTIMA	Sodium benzoate, D-glucono-1,5-lactone, calcium gluconate	Leave on & rinse off pH: 3-7 Dosage: 1.0-2.0 %
Saliguard <sup>®</sup> CGZ	Caprylyl glycol, 1,3 propanediol	Leave on & rinse off pH: 3-10 Dosage: 0.75-1.25 %
Saliguard <sup>®</sup> UZB	Undecylenic acid, 1,3 propanediol (corn derived), benzyl alcohol	Leave on & rinse off pH: 3.0-6.5 Dosage: 0.75-1.0 %
Saliguard <sup>®</sup> UCP	Undecylenic acid, caprylyl glycol, phenoxyethanol	Leave on & rinse off pH: 3.0-6.5 Dosage: 0.75-1.0 %
Saliguard <sup>®</sup> EHG	Ethylhexylglycerin	Leave on & rinse off pH: 2.0-12.0 Dosage: 0.3-1.0 %
Saliguard <sup>®</sup> EHGP	Ethylhexylglycerin, phenoxyethanol	Leave on & rinse off pH: 2.0-12.0 Dosage: 0.5-1.0 %
Saliguard <sup>®</sup> EZ	Ethylhexylglycerin, 1,3 propanediol	Leave on & rinse off pH: 3.0-7.0 Dosage: 0.5-2.0 %
Saliguard <sup>®</sup> EU	Ethylhexylglycerin, undecylenic acid	Leave on & rinse off pH: 3.0-7.0 Dosage: 0.3-2.0 %

## UV Filters/Sunscreens

Product	Description	Characteristics
Salisol <sup>®</sup> OMC	Octyl methoxycinnamate/octinoxate	UV-B, liquid, oil soluble
Salisol <sup>®</sup> OS	Octyl salicylate/octisilate	UV-B, liquid, oil soluble
Salisol <sup>®</sup> AB	Butyl methoxydibenzoylmethane/ avobenzene	UV-A, solid, oil soluble
Salisol <sup>®</sup> 3	Benzophenone 3/oxybenzone	UV-A and B, solid, oil soluble
Salisol <sup>®</sup> 4	Benzophenone 4	UV-B, solid, water soluble
Salisol <sup>®</sup> HS	Phenylbenzimidazole sulphonic acid	UV-B, solid, water soluble
Salisol <sup>®</sup> HMS	Homosalate/homomenthylsalicylate	UV-B, liquid, oil soluble
Salisol <sup>®</sup> CRY	Octocrylene	UV-B, liquid, oil soluble
Salisol <sup>®</sup> CRY LB	Octocrylene with low benzophenone content	UV-B, liquid, oil soluble
Salisol <sup>®</sup> EHT	Ethylhexyl triazone	UV-B, solid, oil soluble

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