Silicones for Personal Care
Personal Care Product Range

Volatile Fluids
Dimethicones
Phenyl Modified Fluids
Polymer Fluid Blends
Dimethicone Copolyols
Silicone Crosspolymers
Silicone Emulsions
Silicone Resins
Volatile Fluids

• Volatile on skin

• Upon evaporation, impart soft, dry velvety feel, no residue or build up

• Make up: Volatile carrier in pigment dispersions

• Aerosol: Replacement for organic solvent
  Reduce Stickiness
  Non clogging of nozzles
  No cooling effect on evaporation

• Stick: Non tacky, apply without drag

• Sunscreen: Solvent for actives, and dispersing aid for micronized oxides

• Emulsions: Soft, smooth feel and pleasant application with a unique skin feel
Volatile Fluids

**Cyclics**

- BRB CM 40 - Cyclotetrasiloxane
- BRB CM 50 - Cyclopentasiloxane
- BRB CM 50 High Purity - Cyclopentasiloxane
- BRB CM 60 - Cyclohexasiloxane
- BRB CM 45 - Cyclotetrasiloxane (and) Cyclopentasiloxane
- BRB CM 45-S - Cyclotetrasiloxane (and) Cyclopentasiloxane
- BRB CM 56-S - Cyclopentasiloxane (and) Cyclohexasiloxane
Volatile Fluids

*Linears*

- **DM 0.65** - Disiloxane
- **DM 1** - Trisiloxane
- **DM 1.5** - Dimethicone
- **BRB 1417** - Dimethicone (and) trisiloxane
- **DM 2** - Dimethicone
- **DM 55** - Dimethicone (alternative to Cyclopentasiloxane)
- **DM 66** - Dimethicone (alternative to Cyclopentasiloxane (and) Cyclohexasiloxane)
Volatile Fluids

Evaporation Characteristics

Volutility of BRB silicone fluids at 25°C
Dimethicones

**BRB DM Fluid** - Dimethicone 5 to 100,000 cSt

- Outstanding emolliency and soft feel
- Non Volatile
- Excellent spreadability

- Low viscosity dimethicones (5 - 20 cSt): miscible in organic ingredients
  Skin Care, Antiperspirant & Deodorants, Sun Care, Hair Care and Color Cosmetics

- Middle viscosity dimethicones (50 - 1,000 cSt): as oil additive
  Skin Care, Antiperspirant & Deodorants, Sun Care, Hair Care and Color Cosmetics

- High viscosity dimethicones (60,000 - 100,000 cSt): Exceptional conditioning agents in Hair Care products
Gum blends

- BRB 1735  Cyclopentasiloxane (and) Cyclotetrasiloxane (and) Dimethiconol
- BRB 1744, 1755  Cyclopentasiloxane (and) Cyclotetrasiloxane (and) Dimethiconol
- BRB 1834, 1934  Cyclopentasiloxane (and) Dimethiconol
- BRB 1844  Cyclopentasiloxane (and) Dimethicone
- BRB 1736, 1740, BRB 1860  Dimethicone (and) Dimethiconol

- Custom made on request
- Applications  Body & Skin Care, Antiperspirant & Deodorants, Sunscreen Products, Color Cosmetics and Hair Care
Gum Blends

• Impart emollience to skin, providing lubricious and silky feel
• Give spreadability to any kind of formula
• Provide a breathable non-comedogenic protection barrier
• Improve substantivity on surface, helping to fix other actives
• Long lasting effect
• Water resistance supply on skin and hair, with non-occlusive film
• Yield shine and high conditioning effect on hair
Phenyl Modified Fluid

- BRB PTM 20 - Phenyl Trimethicone

- High refractive Index which imparts gloss
- Good solubility or compatibility with many organic ingredients
- Excellent emolliency and reduced tackiness

- Widely used in Color Cosmetics, Hair Care, Skin Care and Sunscreens
Dimethicone Copolyols

- **BRB 523** - PEG/PPG-18/18 Dimethicone
- **BRB 526** - PEG-12 Dimethicone
- **BRB 6373** - Cyclopentasiloxane (and) PEG/PPG-18/18 Dimethicone
- **BRB 6341** - PEG-10 Dimethicone
- **BRB 423** - Cetyl PEG/PPG-10/1 Dimethicone

- Acts as wetting agent, emulsifier
- Compatible with a wide range of cosmetic ingredients
- Hair Care: Conditioning agent and superior non-oily feel
- Skin Care & Color Cosmetics: Create non-comedogenic light feel emulsions with elegant sensory
<table>
<thead>
<tr>
<th>INCI Name</th>
<th>BRB 523</th>
<th>BRB 526</th>
<th>BRB 6341</th>
<th>BRB 6373</th>
<th>BRB 423</th>
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<tbody>
<tr>
<td></td>
<td>PEG/PPG-18/18 Dimethicone</td>
<td>PEG-12 Dimethicone</td>
<td>PEG-10 Dimethicone</td>
<td>Cyclopentasiloxane (and) PEG/PPG-18/18 Dimethicone</td>
<td>Cetyl PEG/PPG-10/1 Dimethicone</td>
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<td>Texture</td>
<td>Light emulsions</td>
<td>White emulsions, Gel-cream translucent emulsions</td>
<td>Fluid Emulsions</td>
<td>Versatility of textures: white &amp; transparent emulsions, lotions, creamy emulsions, gel-creams</td>
<td>Versatility of textures: white &amp; transparent emulsions, lotions, creamy emulsions, gel-creams, richer emulsions</td>
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<td>Viscosity (25°C)</td>
<td>2000 cSt</td>
<td>300 cSt</td>
<td>600 cSt</td>
<td>30 cSt</td>
<td>1250 cSt</td>
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<td>HLB</td>
<td>8</td>
<td>13</td>
<td>4,5</td>
<td>2</td>
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<td>Oil/silicone phase</td>
<td>Silicone phase</td>
<td>Oil/silicone phase</td>
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<td>Cold process</td>
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<td>Yes</td>
<td>Yes</td>
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<td>Oil phase to emulsify</td>
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<td>Up to 30%</td>
<td>Up to 30%</td>
<td>Up to 30%</td>
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<td>Use level</td>
<td>1 - 3 %</td>
<td>4%</td>
<td>2 - 8 %</td>
<td>7 - 10 %</td>
<td>1,5 - 3 %</td>
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<table>
<thead>
<tr>
<th>Skin Care</th>
<th>Sun Care</th>
<th>Hair Care</th>
<th>Make-up</th>
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<td>X</td>
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Silicone Crosspolymer

Silicone Fluid

Silicone Crosspolymer
Silicone Crosspolymer

Clear to slightly translucent cross-linked silicone elastomer gel

These products are specifically designed to provide luxurious feel as well as maintaining the back up of your formulation

- BRB SG 106, 116, 117
- Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer

- BRB SG 506, 516, 517
  - Dimethicone (and) Dimethicone/Vinyl Dimethicone Crosspolymer

- Custom made
Silicone Crosspolymer

- Impart superior sensory feel: smoothness, light, silky, non-greasy and powdery touch
- Cold Processable and Easy to formulate
- Reduce tackiness of formulation
- Acts as thickening agent, improving formula stability
- Provide long-lasting effect

- Applications: Skin Care, Hair Care, Antiperspirant & Deodorants, Color Cosmetics, Sunscreens and styling products
## Silicone Crosspolymer overview

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>BRB SG 106</th>
<th>BRB SG 116</th>
<th>BRB SG 117</th>
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<td>Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer</td>
<td>Colourless translucent gel</td>
<td>Colourless translucent paste</td>
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<tr>
<td>Appearance</td>
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<td>Colourless translucent gel</td>
<td>Colourless translucent paste</td>
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<tr>
<td>Odour</td>
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<td>Odourless</td>
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<td>Refractive index</td>
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<td>1.397</td>
<td>1.397</td>
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<tr>
<td>Viscosity (25 °C, 10 s⁻¹)</td>
<td>mPa.s</td>
<td>30.000</td>
<td>55.000</td>
<td>10.000</td>
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<tr>
<td>Crosspolymer content</td>
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<th>BRB SG 517</th>
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<td>Colourless translucent gel</td>
<td>Colourless translucent paste</td>
</tr>
<tr>
<td>Appearance</td>
<td></td>
<td>Colourless translucent gel</td>
<td>Colourless translucent paste</td>
<td>Colourless translucent gel</td>
</tr>
<tr>
<td>Odour</td>
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<td>Odourless</td>
<td>Odourless</td>
<td>Odourless</td>
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<tr>
<td>Refractive index</td>
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<td>1.400</td>
<td>1.397</td>
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<td>Viscosity (25 °C, 10 s⁻¹)</td>
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<td>30.000</td>
<td>30.000</td>
<td>10.000</td>
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<tr>
<td>Crosspolymer content</td>
<td>%</td>
<td>14</td>
<td>11</td>
<td>10</td>
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</table>
BRB Personal Care Emulsions

- **BRB 1018**  Dimethiconol (and) TEA-dodecylbenzenesulfonate
- **BRB 1288**  Amodimethicone (and) Trideceth-12 (and) Cetrimonium Chloride
- **BRB 9719**  Dimethicone (and) Laureth-4 (and) Laureth-23 (and) Salicylic acid
- **BRB 5446**  Silicone Quaternium-17 (and) Trideceth-7 (and) Trideceth-5
- **BRB 1298**  Amodimethicone (and) Trideceth-7 (and) Trideceth-5 (and) Propylene Glycol (and) Trideceth-12
- **BRB 5834**  Phenyl Trimethicone (and) Laureth-4 (and) Silicone Quaternium-17 (and) Laureth-23

- Hair Care and Skin Care applications
- Emulsions of silicone for easy formulation into hair treatment products
- Concentration easily adjusted by dilution with water
- Protective coating upon drying
- Imparts soft and silky feel
- Improves wet and dry combing
BRB Personal Care Emulsions

- **BRB 1018**: High viscosity dimethiconol emulsion
  
  **INCI**: Dimethiconol (and) TEA-dodecylbenzenesulfonate

- 60% Dimethiconol Gum anionic macro-emulsion made by Emulsion-polymerisation

- Improve wet and dry combing, imparting smooth soft feel and shine

- Deposit on hair in combination with cationic polymers (e.g. hydroxypropyltrimoniumchloride)

- Preservative: Phenoxyethanol
BRB Personal Care Emulsions

- **BRB 1288**: Cationic Aminofunctional emulsion
  INCI: Amodimethicone (and) Trideceth-12 (and) Cetrimonium Chloride

- Hair care emulsion for Conditioners and Hair Treatment formulations
- A very good conditioning additive for Leave-on and styling products
- Benefits: easier dry & wet combing, less flyaway, less static build-up, hair volume
- 35% silicone active macroemulsion
- Low D4 content (~0.1%)
- Phenoxyethanol preserved

- **BRB 1292** is a 50% silicone active version.
BRB Personal Care Emulsions

• **BRB 9719: Dimethicone emulsion**
  
  **INCI:** Dimethicone (and) Laureth-4 (and) Laureth-23 (and) Salicylic acid

• Non-ionic emulsion for Skin Care and Hair Care applications
• 55% Silicone active
• Hair Care: highly conditioning effect without build up
• Skin & Body Care: non-tacky, luxuriant soft silky feeling
• Easy to formulate
• Preservative: Salicylic acid
BRB Personal Care Emulsions

• **BRB 5446**: Silicone Quaternium microemulsion
  
  **INCI**: Silicone Quaternium-17 (and) Trideceth-7 (and) Trideceth-5

• BRB 5446 is a clear, non-ionic microemulsion of a quaternary ammonium functional silicone.

• It represents a step forward in hair conditioning effect, suitable for use in shampoo, conditioner, hair-balm and styling formulations.

• Ideal for use in clear, leave-in and rinse-out products, for all hair types.

• Enhanced color and heat protection, particularly on damaged hair fibers.

• Preservative: Phenoxyethanol
BRB Personal Care Emulsions

- **BRB 1298**: Non-ionic Aminofunctional microemulsion
  - **INCI**: Amodimethicone (and) Trideceth-7 (and) Trideceth-5 (and) Propylene Glycol (and) Trideceth-12

- Hair care emulsion for Conditioners and Hair Treatment formulations
- Ideal for clear formulations
- Benefits: easier dry & wet combing, less flyaway
- 30% solid / 20% Silicone
- Protected with a preservative-free blend of Caprylyl glycol and Phenethyl alcohol that offers synergetic broad spectrum antimicrobial protection.
BRB Personal Care Emulsions

- **BRB 5834: Silicone Quaternium microemulsion**
  - **INCI:** Phenyl Trimethicone (and) Laureth-4 (and) Silicone Quaternium-17 (and) Laureth-23

- BRB 5834 is a clear, non-ionic microemulsion combining the effect of the well-established gloss-boosting Phenyl Trimethicone with the excellent conditioning properties of a quaternary ammonium silicone in a clear micro-emulsion.

- Ideal for use in clear, leave-in and rinse-out products, for all hair types
- Silicone content: 17%
- Preservative free
<table>
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<th>Description</th>
<th>Macro-emulsion of an Ultra high viscosity polymer</th>
<th>Macro-emulsion of an amine-functional silicone polymer</th>
<th>Micro-emulsion of an amine-functional silicone polymer</th>
<th>Micro-emulsion of a quaternary ammonium functional silicone</th>
<th>Macro-emulsion of a high viscosity polymer</th>
<th>Microemulsion of Phenytrimethicone and a quaternary ammonium functional silicone</th>
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<tbody>
<tr>
<td>INCI Name</td>
<td>Dimethiconol (and) TEAdodecybenzenesulfonate</td>
<td>Amodimethicone (and) Trideceth-12 (and) Cetrimonium Chloride</td>
<td>Amodimethicone (and) Trideceth-7 (and) Trideceth-5 (and) Propylene Glycol (and) Trideceth-12</td>
<td>Silicone Quaternium-17 (and) Trideceth-7 (and) Trideceth-5</td>
<td>Dimethicone (and) Laureth-4 (and) Laureth-23 (and) Salicylic acid</td>
<td>Phenyl Trimethicone (and) Laureth-4 (and) Silicone Quaternium-17 (and) Laureth-23</td>
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<td>Emulsifier Type</td>
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<td>Non-ionic</td>
<td>Non-ionic</td>
<td>Non-ionic</td>
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<tr>
<td>Silicone content</td>
<td>60%</td>
<td>35% / 50%</td>
<td>20%</td>
<td>15%</td>
<td>50%</td>
<td>22%</td>
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<tr>
<td>Viscosity (25°C)</td>
<td>200 cSt</td>
<td>5 cSt / 200 cSt</td>
<td>30 cSt</td>
<td>20 cSt</td>
<td>5000 cSt</td>
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<tr>
<td>Preservative</td>
<td>Phenoxyethanol</td>
<td>Phenoxyethanol</td>
<td>Caprylyglycol and Phenethyl alcohol</td>
<td>Phenoxyethanol</td>
<td>Salicylic acid</td>
<td>Preservative free</td>
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<tr>
<td>Primary Applications</td>
<td>Shampoo</td>
<td>Conditioner Rinse offf</td>
<td>Conditioner Leave In</td>
<td>Styling</td>
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<tr>
<td>Use level</td>
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<td>0,5 to 2%</td>
<td>0,5 to 2%</td>
<td>2 to 10%</td>
<td>0,5 to 4%</td>
<td>1 to 4%</td>
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<tr>
<td>Conditioning level</td>
<td>medium</td>
<td>high</td>
<td>high</td>
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<td>medium</td>
<td>high</td>
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<tr>
<td>Formulation benefits</td>
<td>low cost, ease of use</td>
<td>ease of use</td>
<td>clear systems, preservative free</td>
<td>clear systems, ease of use</td>
<td>low cost, ease of use</td>
<td>clear systems, preservative free</td>
</tr>
<tr>
<td>Performance benefits</td>
<td>ease of detangling, shine, silkiness</td>
<td>ease of detangling, smooth &amp; soft dry feel, shortens hair drying time</td>
<td>ease of detangling, color protection</td>
<td>ease of detangling, heat protection, color protection, no build up effect</td>
<td>ease of detangling, shine, softness</td>
<td>ease of detangling, excellent gloss, excellent wet combing, softness</td>
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Amino oils

- **BRB SF 240** - Amodimethicone
- **BRB SF 430** - Amodimethicone

<table>
<thead>
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<th>Nitrogen</th>
<th>Viscosity</th>
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<tr>
<td>BRB SF 240</td>
<td>0.2 %</td>
<td>4000 cSt</td>
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<tr>
<td>BRB SF 430</td>
<td>0.4 %</td>
<td>3000 cSt</td>
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- Ingredient for Hair Care formulations to enhance conditioning
- Free of emulsifiers and preservatives
- Easy to process into hair-care formulations (emulsified or added in the oil phase) of rinse-off or leave-on hair products
- Provides smooth feel to dry hair
- Improves wet and dry combing
- Long lasting conditioning without build up
Alkyldimethicones

- BRB Caprylyl methicone

<table>
<thead>
<tr>
<th>BRB Caprylyl Methicone</th>
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<tr>
<td>Field application: Skin Care, Color Cosmetics and Sun Care</td>
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<table>
<thead>
<tr>
<th>Sensory</th>
<th>Performance</th>
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</thead>
<tbody>
<tr>
<td>Suppleness, smooth silky light feel</td>
<td>Oil &amp; waxes compatibility</td>
</tr>
<tr>
<td>Great spreadability</td>
<td>Pigment dispersant</td>
</tr>
<tr>
<td>Gives shine</td>
<td>Keeps skin moisturized with no occlusive effect</td>
</tr>
<tr>
<td>Reduce tackiness, greasiness and stickiness</td>
<td>Reduce surface tension of organic oils (spreadability)</td>
</tr>
<tr>
<td>Enhance sensory of natural ingredients</td>
<td>Great ability to distribute UV filters: SPF booster</td>
</tr>
<tr>
<td>Moderate volatility</td>
<td></td>
</tr>
</tbody>
</table>
Volatile Profile of BRB Caprylyl Methicone

- Moderate volatility - less dry feel compared to volatile silicones
Alkyldimethicones

- **BRB 2835**: Cetyl dimethicone
- **BRB 2836**: Stearyl dimethicone (and) Octadecene

- Enhance sensory of natural ingredients, providing unique smooth silky feel
- Organic compatibility, improve spreadability
- Pigment compatibility, SPF booster
- Water resistance

- Applications: Hair Care, Body & Skin Care, Lip Care, Color Cosmetics and Sun Care
Alkyl functional Silane

- **BRB 2894**: Triethoxycaprylylsilane (NEW)
  - Very reactive Surface-treating agent for pigments and powders
  - Imparts excellent hydrophobicity
  - Improves dispersibility in organic media.
  - Lower oil absorption compared to untreated pigments
  - Improves water resistance and long lasting
Silicone resins

- **BRB TMS**  Trimethylsiloxy silicate
- **BRB TMS-50C**  Cyclopentasiloxane (and) Trimethylsiloxy silicate
- **BRB TMS-30D**  Dimethicone (and) Trimethylsiloxy silicate
- **BRB TMS-50I**  Isododecane (and) Trimethylsiloxy silicate
- **BRB Color Lock**  Isododecane (and) Trimethylsiloxy silicate (and) Dimethicone
- Custom made

- Excellent film former, providing long lasting effect
- Wash-off and rub-off resistant
- Unique smooth non-tacky feel
Silicone resins

- **BRB PMS-2** Polymethylsilsesquioxane
- **BRB PMS-5** Polymethylsilsesquioxane

- Soft focus effect, reduction of fine lines and wrinkles
- Luxurious smooth dry feel
- Excellent lubricity, due to ball bearing effect
- Prevention of pigment and powder agglomeration
- Sebum absorption
- Water repellence improvement

- Applications: Skin Care and Color cosmetics
BRB Personal Care

We would like to offer you:

• Greater flexibility
• A wide range of products
• Worldwide coverage

• We are:
  • Highly experienced in tailor made solutions
  • Highly experienced in toll manufacturing
The power of smart ingredients