Who We are...

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SILCHEM Silicone Chemicals is a manufacturer and formulator of Silicone based Fluids, Emulsions, Anti-foams and Specialty Mold Release Agents. These silicone products offer unique, unmatched properties in comparison to traditional organic based materials.

With over 30 years in the industry, SILCHEM continues to specialize in "Silicone Chemicals" and other related Silicone Products. We are committed to supplying sophisticated proven products to satisfy our customers' needs through our expert technical service team.

The quality system at SILCHEM is registered to ISO 9001:2008

Research & Development

SILCHEM'S research and development team is constantly working on new products, responding to different silicone applications and anti-foam challenges. Custom application and formulation inquiries are welcomed.

SILCHEM
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A Vision for the Future

With the courage to take risks and to support and meet the needs of our customers, our employees and the environment, our objectives are:

To be a leader in our strategic market segments through product diversification, flexibility and continuous adaptation to the marketplace.

To continue in the development and implementation of new technologies.

To be a proactive enterprise providing proven technologies and intelligently formulated products.

To continue to develop long term partnerships.

Samples & Information

Sample and data sheets are available upon request. Please consult with our technical sales team in order to ensure exact product selection for best results.

Silicone Specialists - Dedicated to Excellence

The Silchem Advantage

SILCHEM'S Silicone Products Offer the Following Advantages:

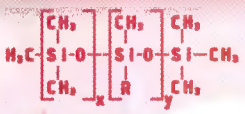
Wide Temperature Range
Whether high or low temperature, Silicone products far surpass conventional organic materials. From - 75°C to 240°C (-100°F to 500°F)

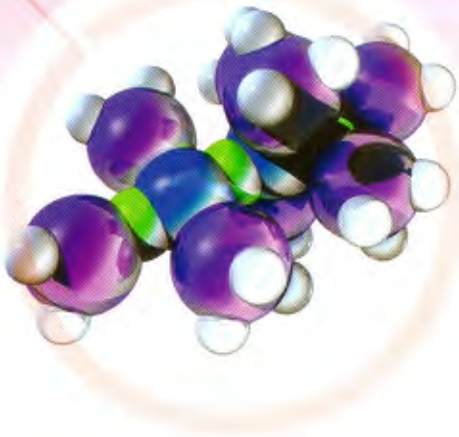
Chemical Inertness
Silicones are chemically inert to most common materials making them effective as mold release agents.

Low Flammability
Flash points in the range of 205°C to 260°C (400° F to 500° F) are typical for most silicone fluids.

Low Surface Tension
Silicone based anti-foams have unusually low surface tension which provides unequalled, high efficiency de-foaming and high surface activity.

Non-Corrosive
Silicone fluids typically are clear, inert, tasteless, colourless and non-hazardous.
Silicone fluids do not contain chemicals which can cause corrosion or staining.





Unique Chemical Structure
Silicone products are quite unique from most others. Where organic materials are based on a carbon-to-carbon backbone, silicones have a backbone of silicone - oxygen links similar to other high temperature materials such as quartz, sand and glass.

The Silicone molecular chain is much stronger that the typical organic carbon - to - carbon link.

Because of this unique chemical structure, the silicone backbone is more resistant to high temperature extremes, chemical attack and oxidation.

All of these characteristics combine to contribute to silicone's attractiveness and present many possibilities for service applications which require these unique overall attributes.

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Petroleum/Petrochemical - Tire/Rubber

PETROLEUM / PETROCHEMICAL

AQUEOUS:

Anti-Foam Emulsions - These anti-foam emulsions are water dispersions of polydimethylsiloxane fluids. These anti-foams have proven effective in many petroleum/petrochemical processing applications. They exhibit superior efficiency and longevity, and are recommended for highly alkaline or acidic aqueous systems. These anti-foams provide excellent de-foaming in many nonionic, cationic and anionic systems.

NON AQUEOUS ANTI-FOAMS:

Dimethyl Fluids - Easily dispersible in organic solvents for the de-foaming of oil/gas separators, delayed cokers, vacuum tower units and asphalt processing.

Fluorosilicone Fluids - These fluids are typically utilized where standard dimethyl fluids have failed. Applications for de-foaming aliphatic, aromatic and chlorinated solvents are where fluorosilicone fluids give best results.

Anti-foam Compounds - SAF-200 Series anti-foams are 100% silicone compounds which provide maximum foam control in highly alkaline and highly acidic systems. These anti-foam compounds exhibit excellent efficiency and longevity. SAF-200 Series anti-foams are soluble in aliphatic, aromatic and chlorinated solvents.

TIRE / RUBBER

Committed to the Tire and Rubber Industries, SILCHEM formulates and compounds mold releases and lubricants for a variety of demanding applications. For specific recommendations please call our Technical Department.

FLUIDS:

Dimethly - Internal or external mold release available in a wide range of viscosities.

Alkyl - Release coating and lubricant for many substances requiring organic compatibility.

EMULSIONS: (Water Based)

Dimethyl - General release agent for many rubber molding applications and release agent formulations.

Alkyl - Mold release for applications requiring post finishing, - painting, bonding and coating.

SPECIALTY: (Water Based)

Reactive - Curable mold release for multiple cycles. Will not build up on molds or discolour parts.

Solid Additive (GTL) - Developed as an inside tire lubricant, requiring excellent lubricity, release and air bleed.

Outside Tire Paint (OTP) - Black side wall tire paints provide air bleed and final finish

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Personal Care - Pharmaceutical

PERSONAL CARE

SILCHEM supplies a specialized product line for the Personal Care industry that will provide the performance and quality you require for overall product appeal.

CTFA DESIGNATION

FLUIDS:

Dimethicone - Imparts shine, lubricity and water resistance in hair products. Also acts as an emollient and offers anti-whitening properties and superior conditioning.

Cyclomethicone (Volatiles) - Carriers for antiperspirants, moisturizers, foam/gel shaving products. Also acts as emollient and is used in hair conditioners.

Dimethicone Copolyol - Used as a water soluble surfactant and emulsifier.

Phenyl Trimethicone - Used in cuticle laminates, sunscreens, lipstick and hairsprays. Also offers water repellency in skin care products.

Dimethicone (and) Trimethylsiloxysilicate - A blend of dimethyl fluid and a film forming MQ resin which offers substantivity and water resistance for lipsticks, suntan products, facial creams, mascaras.

EMULSIONS:

Dimethicone, Laureth-4 and Laureth- 23 - Hair conditioning products and gels; high molecular weight dimethyl emulsion.

Trimethysilylamodimethicone (and) Octoxynol-40 (and) Isolaureth-6 - Imparts substantivity and conditioning for hair products. Due to the fact that it is non-film forming, it is utilized as a daily conditioner.

Trimethysilylamodimethicone (and) Octoxynol-40 (and Isolaureth-6 (and) Glycerin - Imparts substantivity and conditioning for hair products. Also acts as a protectant for temporary hair colourants and pre-treatments.

ANTI-FOAMS:

Dimethicone - Anti-foaming and anti-whitening properties.

Dimethicone (and) PEG Stearate (and) Sorbitan Stearate (and) Silica - These anti-foams provide maximum foam control in many batch processing applications as well as certain plant maintenance procedures.

PHARMACEUTICAL

FLUIDS:

Dimethyl - Lubrication of pharmaceutical items and instruments. A component in ointments and creams.

EMULSIONS:

Mold release in the manufacture of suppository capsules. Non-stick coatings for bottles. Also used in the preparation of tablets, pills and capsules.
A lubricant for conveyor belts.

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Pulp & Paper / Waste Water Treatment - Textiles

PULP & PAPER/WASTE WATER TREATMENT

SILCHEM offers a complete line of high efficiency anti-foams proven to be effective in alkaline environments.

FLUIDS:
Dimethyl - Used as a particle treatment to impart hydrophobic properties.

Copolymer (Water Soluble) - Acts as a wetting agent and surface modifier improving de-foaming efficiency.

ANTI-FOAMS:
Aqueous Emulsions - Efficient de-foaming of aqueous systems during bleaching and washer processes at pulp and paper mills.

Aqueous Compounds - Formulating water based de-foamers. Concentrated systems for repackagers and formulators.

Non-Aqueous Compounds - For highly alkaline and highly acidic systems requiring maximum foam control and longevity. Formulating solvent based de-foamers.

SILCHEM offers formulation assistance for custom applications. Contact us for more information.

TEXTILES

SILCHEM'S silicone products for the Textile industry offer many benefits that contribute to colour protection, softness and durability in fabrics.

FLUIDS:
Dimethyl - Softening of cottons and synthetics. Improves sewability, increases resistance and offers increased fabric tear and abrasion resistance.

Alkyl - Lubrication of threads and fibres.

Phenyl - High temperature lubrication and tear resistance of synthetics.

Organofunctional Non-Reactives-Amines - Imparts a slick hand to most fabrics as well as crease resistance.

EMULSIONS:
Dimethyl - Improves water repellency and imparts a soft hand. Acts as a cutting and sewing lubricant.

Alkyl - Lubricant for synthetics. Compatible with some post finishing bonding or coatings.

Phenyl - High temperature lubrication and tear resistance of synthetics.

Specialty - Hydrophilic and hydrophobic finishes. Durable press finishes.

Anti-foams - De-foaming for jet dyeing and finishing applications.

SPECIALTY:
Solutions - Water repellent and stain resistant finishes.

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Automotive/Household Care - Food & Beverage

AUTOMOTIVE/HOUSEHOLD CARE

SILCHEM offers a complete range of products for the formulator.

FLUIDS:

Dimethyl- Used in various rubber and vinyl dressings. Imparts water repellency and gloss in polishes.

Alkyl - Metal to metal lubricant for specialty auto lubes. For example, carburetor cleaners.

Copolymer (Water Soluble) - Imparts lubricity and anti-fog characteristics in window cleaners. Also improves wetting ability.

Specialty Blends - Water and stain repellents for fabrics. Amine fluids for durable polish films.

EMULSIONS:

Dimethyl- Water based dimethyl emulsions used in rubber and vinyl dressings. Imparts shine, depth of gloss and lubricity in polishes and waxes. Specialty reactive emulsions offer polish durability and detergent resistance.

Amine Functional - Offers water repellency and durability in polishes and dressings. Acts as a grout sealer in floor care systems.

Anti-Foams - Economical and efficient anti-foams used in floor waxes and for detergent foam control in concentrates and finishes.

FOOD & BEVERAGE

SILCHEM'S food grade products may be used in certain food contact applications where the silicone concentration does not exceed 10ppm (parts per million). Refer to Health Canada or FDA regulations for specific conditions and limitations of use.

FLUIDS:

Dimethyl - De-foaming of vegetable oils, corn oils and soy bean oils. Lubricant for conveyor belts and machinery.

COMPOUNDS:

Non-Aqueous Anti-foams - De-foaming of vegetable oils and corn oils.

EMULSIONS:

Aqueous Anti-Foams - De-foaming of food processing applications such as meat rendering, potato processing, pickle and vegetable processing. Also de-foaming of liquid beverages such as wine, beer, soft drinks and fruit juices.

Dimethyl - Mold release for the manufacture of food containers, and various thermoforming applications.

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