

SASOL

Industrial Waxes

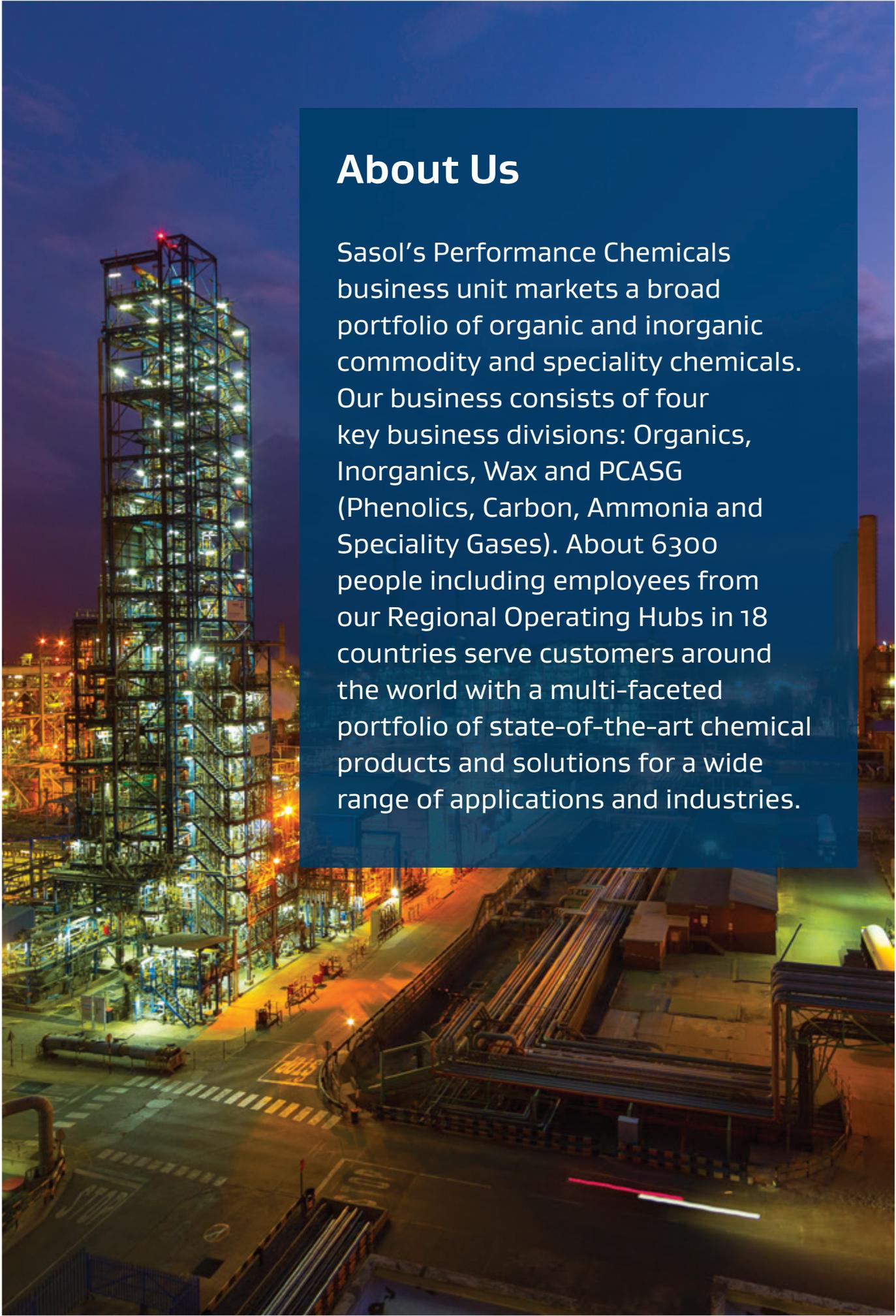
Textile & Leather

Sasol Performance Chemicals



About Us

Sasol's Performance Chemicals business unit markets a broad portfolio of organic and inorganic commodity and speciality chemicals. Our business consists of four key business divisions: Organics, Inorganics, Wax and PCASG (Phenolics, Carbon, Ammonia and Speciality Gases). About 6300 people including employees from our Regional Operating Hubs in 18 countries serve customers around the world with a multi-faceted portfolio of state-of-the-art chemical products and solutions for a wide range of applications and industries.



At a Glance

The Wax Division of Sasol Performance Chemicals is a leading specialist in innovative wax technology.

For many decades the Wax Division of Sasol Performance Chemicals has focused on the development and sales of paraffin waxes, micro waxes, synthetic waxes and blends or emulsions thereof. Today we serve different industries like inks, paints & coatings, rubber & tire, paper & packaging, textiles, cosmetics as well as road construction, candles and many others.

Micro and macro crystalline waxes are renowned for a wide range of possible applications. Their use ranges from rather simple applications to process oriented tailor-made blends for state-of-the-art production equipment. Specialties are created for innovative solutions.

Refined paraffin waxes are blends of saturated hydrocarbons, purified by modern, environmental friendly technologies. All our products are constantly monitored by a stringent quality control system and are nontoxic. Their environmental properties are characterized by inherent biodegradability and non-cumulative effects.

Wax solutions for every process.



Textile & Leather

Natural fibres contain wax-like substances as a protective agent against atmospheric and biological influences. The removal of these substances during processing alters the frictional and absorbency characteristics of the fibres, resulting in a loss of softness, pliability and elasticity, making it necessary to reapply a suitable finish. It is also necessary to lubricate synthetic fibres for high speed processing.

Wax Performance in Textiles

Wax emulsions are used by the textile industry in four main areas:

- Waterproofing of textile substrates
- Modifying the frictional properties of fibres, yarns and sewing threads to enhance processability
- Enhancing the performance of finishing compounds such as softeners, silicones and resins
- Providing superior fabric properties such as improved flex abrasion resistance, tear strength and sewability

A number of different types of white oils, petroleum jellies and waxes are used in the textile industry to improve the fabric tear strength, flex abrasion resistance, sewability, yarn knitability and the feel of the fabric.

The treatment with Sasolwax paraffin waxes improves the processing of yarns, for example during warp sizing. It reduces fibre-to-fibre friction or fibre-to-metal friction in fast moving weaving machines, with the result that processing problems during the weaving process are reduced and the production output is optimised. The paraffin wax treatment often remains on the textile and improves the “feel” of fabric. Sasol Performance Chemicals has developed a specialised range of oxidised and saponified Sasolwax Fischer-Tropsch waxes for use in the textile industry. These grades have been specifically developed to enhance processability, from easier emulsification and application through to final fabric performance in such areas as sewability, knitability, flex abrasion resistance and tear strength. The excellent performance of the Sasolwax products enables lower application levels than with Polyethylene waxes, providing the opportunity to reduce raw material costs. In areas where the use of wax may impair the fabric handle or drape the lower application levels using Sasolwax may be advantageous.

Leather and Fabric Impregnation

Sasolwax paraffin waxes are ideally suited for fabric impregnation in order to improve the water repellence of the fabric. In conjunction with zirconic salt, wash resistant impregnation effects are achieved. For formulations with petroleum jellies served as fat components and white oils, paraffin waxes in their pure or chemically modified form, are used for the greasing and waxing of leather following tanning, in order to achieve phaseisolating lubrication and water repellence. Incorporated in emulsions paraffin waxes have the advantage that small particles are able to penetrate the leather capillaries more effectively (Licker greasing). Licker greasing plays an important role in leather which is used for the production of shoes, luggage, overcoats and for technical functions.



Natural materials contain wax-like substances as protective agents against atmospheric and biological influences.

Technical Data

Leather and Fabric Impregnation

Technical grade Petroleum Jelly

	Colour ASTM	Congealing Point [°C]	Cone Penetration at 25°C [1/10 mm]	Viscosity at 100 °C [mm ² /s]
MERKUR 500	0 - 0.5	50 - 56	140 - 160	5.0 - 9.0
VARA AB	0 - 0.7	50 - 55	165 - 185	7.5 - 10

Sasolwax Paraffin Waxes

	Congealing Point [°C]	Oil Content [%]	Penetration at 25°C [1/10 mm]
Sasolwax 5403	54 - 56	0 - 0.5	16 - 20
Sasolwax 5413	54 - 56	0 - 1.5	25 - 32
Sasolwax 5603	56 - 58	0 - 0.5	15 - 19
Sasolwax 4110	60 - 62	0 - 0.5	13 - 16

Finishing and Sewability

In a number of processing steps in the textile and leather industries, Sasolwax Fischer-Tropsch waxes are used either directly, or as important components of textile auxiliary chemicals. These waxes improve the ease of textile processing, as well as the finish and performance of the final article. Our products, designed for these applications, are emulsifiable under pressure or atmospheric conditions and are easy to incorporate into various process steps during textile and leather processing. Sasolwax Fischer-Tropsch waxes are preferred ingredients for manufacturing of cationic and non-ionic sewing auxiliaries.

Modified Fischer-Tropsch Waxes

	Congealing Point typical [°C]	Acid Value [mg KOH/g]	Penetration at 25°C [1/10 mm]
Sasolwax A2	89	9 - 13	< 4
Sasolwax A28	95	27 - 29	< 4





SASOL

At your service

Sasol Performance Chemicals

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