



SASOL

Personal Care

Waxes and Petroleum Jellies

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 focussed 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 mixtures 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.



Products for the Cosmetic and Pharmaceutical Industry

Our products are widely used in the cosmetic and pharmaceutical industry, where they are employed as processing aids, as softener for adjusting hardness, in many lotions and creams (e.g. cleansing milk, lipid-replenishing cosmetics and sun protection agents). They act as the base for creams, lipsticks, rouge and eye cosmetics such as eyeshadow, eyebrow pencils and mascara.

Solid paraffins, microwaxes and petroleum jellies are essential components in formulations, as they have outstanding properties in terms of their protective action, colour and also as a consistency regulator. They help to enhance the health of the skin by protecting it from dehydration. Other applications range from shaving foam, hot and cold depilatory waxes to thermal therapy, which exploits the outstanding heat storing properties of paraffin waxes.





Solid paraffins, microwaxes and petroleum jellies help to enhance the health of the skin and reduce desiccation.



MERKUR and VARA

Pharmaceutical Petroleum Jellies

MERKUR and VARA petroleum jellies are ointment-like, nearly odourless, homogeneous mixtures of high-purity, hydrogenated, predominantly branched, saturated hydrocarbons. They come in snow-white, off-white and yellow pharmaceutical quality.

In the table we have indicated the extent to which the degree of purity is covered by various pharmacopoeias. In each case, reference is made to the latest monographs.

MERKUR 773 is a very high-grade petroleum jelly with excellent oil-binding capacity, especially for the pharmaceutical industry.

MERKUR 546 is particularly resistant to heat and suitable for countries with tropical climates. We recommend MERKUR 110 for Melkfett (bag balm) quality.

MERKUR and VARA pharmaceutical petroleum jellies are mainly used for the following applications:

- Base material for ointments, eye creams and haircare, agents and the main component of skincare creams, baby care, hand-cleaning pastes, body lotions, hand and skin creams, and eye make-up.
- Melkfett petroleum jellies and Melkfett ointments (bag balm).

Due to their high purity, white pharmaceutical petroleum jellies are used in most applications today. As a responsible producer, Sasol Wax promotes white petroleum jellies for pharmaceutical and cosmetic applications of all kind.

In pharmaceutical applications, the products are used as an excipient, base material, carrier for active ingredients and consistency regulator. Petroleum jellies are a component of many dermatological preparations.

Benefits at a Glance

Petroleum jellies:

- are an effective carrier for active ingredients
- protect skin from dehydration
- are a universal excipient

For those cosmetic and pharmaceutical formulations in which a yellow product is needed, including bag balm/fatty ointments, and other skin protection creams and veterinary products, we recommend using our yellow types listed in the following table. These yellow petroleum jellies are hydrogenated for the highest purity, delivering white basic grades which are dyed with a vegetable food grade colourant. The corresponding white basic petroleum jellies are fully compliant with the pharmacopoeias listed in the table.

INCI name: *Petrolatum*

	Lovibond colour	Density 80 °C kg/m ³	Congealing point °C	Consistency 25 °C mm/10	Viscosity 100 °C mm ² /s	Drop point °C	Melting range °C	Full compliance with pharmacopoeias
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Pharmaceutical petroleum jellies, white Ph. Eur. (BP), USP/JP – typical data

VARA A	0.0 – 0.5	820	45 – 51	195 – 245	9.0 – 14.0	35 – 70		Ph. Eur.
VARA AB	0.7 y max	820	50 – 55	165 – 185	9.0	35 – 70		Ph. Eur.
VARA 4800	1.0 y max	810	50 – 56	155 – 175	7.0	35 – 70		Ph. Eur.
MERKUR 110	1.0 y max	810	50 – 56	170 – 190	7.0	35 – 70		Ph. Eur.
MERKUR 500	0.5 y max	810	50 – 56	140 – 160	7.0	35 – 70		Ph. Eur.
MERKUR 500 USP	0.5 y max	810	45 – 55	140 – 160	6.0	35 – 70	38 – 60	Ph. Eur./USP
MERKUR 546	1.0 y max	805	48 – 58	95 – 120	7.0	35 – 70		Ph. Eur.
MERKUR 771	0.0 – 1.0	810	50 – 55	150 – 170	5.0 – 9.0	35 – 70		Ph. Eur.
MERKUR 773	0.5 y max	825	47 – 53	155 – 175	12.0	35 – 70	38 – 60	Ph. Eur./USP
MERKUR 774	0.7 y max	820	49 – 55	190 – 210	7.5 – 10.0	35 – 70		Ph. Eur.

Pharmaceutical petroleum jellies, yellow Ph. Eur.

MERKUR 620	2.0 – 3.9	820	48 – 56	150 – 175	5.0 – 9.0	40 – 60	38 – 60	Ph. Eur.*/USP
MERKUR 670	3.0 – 6.0	820	50 – 55	165 – 185	7.5 – 10.0	40 – 60		Ph. Eur.*
MERKUR 1411	10.0 – 13.0	810	48 – 56	150 – 175	5.0 – 9.0	40 – 60	38 – 60	Ph. Eur./USP*
MERKUR 690	20.0 – 35.0	820	50 – 56	140 – 160	5.0 – 10.0	40 – 60	38 – 60	Ph. Eur./USP*

Cosmetics Europe Recommendation No. 14 (oral & lip care) on request.

* All products comply with the purity requirements of USP, Ph. Eur. (BP) and FDA (21 CFR Section 172.880)



SASOLWAX for Personal Care Applications

Hard Paraffin Waxes are mainly used in the formulation of lipsticks, creams, lotions and make-up.

Soft Paraffin Waxes are used in the formulation of lipsticks, creams and lotions. SASOLWAX 5009 and 4610 are raw materials for hot and cold depilatory products and thermal therapy.

Microcrystalline Waxes are used for the formulations of creams and lipsticks to adjust hardness/softness and solidification point. All microcrystalline waxes in this brochure conform to the Cosmetics Europe recommendations for lip care products.

Genuine **ozokerite** was found in association with petroleum deposits, from which it was produced by mining. Purified **ozokerite** is known as **ceresin**. Cosmetic and pharmaceutical applications still use white, purified ceresin to this day. However, there are now alternatives to ozokerites and ceresin, which are mixtures of various waxes with specific properties as regards hardness, viscosity and penetration. Ozokerites and ceresin alternatives are highly valued in creams and many other formulations because of their special oil-binding properties. They also help to stabilise emulsions and regulate viscosity, bind powders or preparations containing powder and help to give hair cosmetics anti-static and conditioning properties.

Benefits at a Glance

- Soft Paraffin Waxes are ideal for thermal therapy applications such as hand baths due to their smoothness and low melting behaviour.
- Our Microcrystalline Waxes are compliant with the Cosmetics Europe (CE) recommendation No. 14.
- Ozokerite and Ceresin alternatives help to stabilise emulsions.

	Congealing point °C	Oil content %	Penetration 25 °C mm/10	Viscosity 100 °C mm ² /s	Compliance with Pharmacopoeia	INCI name
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Hard Paraffin Wax – typical data

SASOLWAX 5203	52 – 54	0.0 – 0.5	16 – 20	3.0 – 5.0	Ph. Eur.	Paraffin
SASOLWAX 5403	54 – 56	0.0 – 0.5	16 – 20	3.0 – 7.0	Ph. Eur.	Paraffin
SASOLWAX 5603	56 – 58	0.0 – 0.8	15 – 19	3.0 – 5.0	Ph. Eur.	Paraffin
SASOLWAX 5803	58 – 60	0.0 – 0.5	15 – 19	4.0 – 5.0	Ph. Eur.	Paraffin

Soft Paraffin Wax – typical data

SASOLWAX 4610	46 – 49	0.0 – 2.0	40 – 80	2.0 – 5.0	–	Paraffin, Microcrystalline Wax
SASOLWAX 5009	50 – 52	0.0 – 2.0	40 – 60	3.0 – 5.0	Ph. Eur.	Paraffin, Microcrystalline Wax
SASOLWAX 8021	44 – 48	1.0 – 3.0	60 – 100	2.0 – 5.0	–	Paraffin, Poly (C30-45 Olefin)

Microcrystalline Wax – typical data

SASOLWAX 0907	83 – 94	0.0 – 2.0	4 – 10	8.5 – 12.5**	USP	Microcrystalline Wax*, Paraffin, Synthetic Wax
SASOLWAX 1800	70 – 80	0.0 – 2.0	18 – 22	13.0 – 17.0	USP	Microcrystalline Wax*
SASOLWAX 3279	76 – 82	0.0 – 2.0	14 – 18	13.0 – 19.0	–	Microcrystalline Wax*
SASOLWAX 3971	70 – 75	0.0 – 2.0	25 – 33	12.0 – 16.0	USP	Microcrystalline Wax*
SASOLWAX 6147	62 – 66	0.0 – 3.0	25 – 35	12.0 – 16.0	–	Microcrystalline Wax*, Paraffin
SASOLWAX 7835	70 – 80	0.0 – 2.5	25 – 30	13.0 – 16.0	USP	Microcrystalline Wax*
SASOLWAX 8400	65-75	0.0 – 3.0	30 – 45	12.0 – 18.0	USP	Microcrystalline Wax*

*These Microcrystalline Waxes are compliant with FDA 21 CFR, 172.880, E905 (Food additive Eu. Regulation) and Cosmetics Europe Recommendation no. 14 (oral care).

Ozokerite/Ceresin alternatives – typical data

SASOLWAX 3977	69 – 72		14 – 18	6.0 – 7.5***	USP	Paraffin, Microcrystalline Wax, Synthetic Wax, (Synonym: Ceresin)
SASOLWAX 6403	62 – 66		16 – 22	5.5 – 7.0	–	Paraffin, Microcrystalline Wax, (Synonym: Ceresin)

** 120 °C

*** Dyn. viscosity



The Sasol Wax Difference

Sasol Wax supplies first-class products offering many benefits for the user. Our products are available all over the world. What's more, our technical expertise extends from Hamburg to all destinations, either directly or via our contacts and sales partners. Our production facilities and processes benefit from our constant efforts to improve and innovate. Our research and development are state of the art.

State-of-art facilities Certified and approved quality

In addition to Sasol's basic requirements such as 100% traceability of batches, comprehensive quality control in terms of pharmacopoeia monographs, and many other details, we have laid down the highest standards for the filling of petroleum jellies, in particular. The drums are filled in new installations in line with stringent hygiene requirements and to some extent under a protective atmosphere with filtered air in a closed system. This, combined with production in a closed tank and pipeline systems, ensures that we reach a standard which has been given unrestricted approval* by the German Association of Research-Based Pharmaceutical Companies (vfa) under the Joint Audit Programme for Excipients (JAVFH).

It goes without saying that our company maintains an integrated management system. We are certified in accordance with DIN EN ISO 9001 (quality), DIN EN ISO 14001 (environment) and OHSAS 18001 (occupational safety and health).

* For non-sterile preparations

Application Matrix

	Body Care/Skin Creams	Baby Care	Body Lotions	Pharmaceutical Creams, Lotions, Salves, Pastes	Bag balm/Fatty Creams	Cold Rubs	Insect Repellents	Pharmaceutical Base Creams	Pain-relieving Balms	Pharmaceutical Eye Preparations	Lip Care	Lipsticks	Haircare and Styling	Ethnic Haircare/Hair Relaxer	Decorative Cosmetics/Beauty Products	Fango Applications/Hand Baths/Thermal Therapy	Depilation Products	Gum Base/Food Coatings/Confectionery Dividing Agents	Food Additives in relation to 21 CFR FDA	Veterinary Products
Portfolio of White Petroleum Jellies	•	•	•	•	•	•	•		•	•			•	•					•	•
MERKUR 110	•	•			•	•				•										
VARA AB				•		•		•		•										
MERKUR 500	•	•	•	•	•	•	•	•	•				•	•						•
VARA 4800	•	•	•	•	•	•	•	•	•				•	•						•
MERKUR 771	•	•	•	•	•	•	•	•	•				•	•						•
MERKUR 546							•		•					•						•
MERKUR 773				•		•		•			•									•
VARA A				•		•		•			•									•
MERKUR 774				•	•	•		•		•										•
Portfolio of Yellow Petroleum Jellies	•	•	•	•	•	•	•		•				•	•						•
MERKUR 670	•	•	•	•	•	•			•				•	•						•
MERKUR 690					•	•			•				•	•						•
Portfolio of Hard Paraffin Wax	•		•	•			•	•	•				•	•					•	•
SASOLWAX 5203	•	•	•	•				•	•				•	•						•
SASOLWAX 5403	•	•	•					•	•				•	•					•	•
SASOLWAX 5603	•		•	•				•	•				•							•
SASOLWAX 5803	•	•	•	•															•	•
Portfolio of Soft Paraffin Wax	•		•										•	•		•	•			•
SASOLWAX 4610															•	•	•			•
SASOLWAX 5009	•		•	•					•				•	•		•	•			•
SASOLWAX 8021																•	•			•
Portfolio* of Microcrystalline Wax FDA/BFR	•	•		•							•	•	•	•	•			•	•	•
SASOLWAX 7835	•	•		•							•	•			•			•		•
SASOLWAX 3971											•	•			•	•		•		•
Portfolio of Ozokerite/Ceresin alternatives	•	•	•		•				•				•	•						•

* These products comply with the Cosmetics Europe recommendations for use in lip care products.

At Your Service



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