

# Personal Care

Waxes and  
Petroleum Jellies

# 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 a 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 paraffin, microwaxes and petroleum jellies are essential components in formulations, as they have outstanding properties in terms of their protective action, color and also as a consistency regulator. They help to improve 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 makes use of the outstanding heat-storing properties of paraffin waxes.

Application Matrix

	BODY CARE AND COSMETIC APPLICATIONS									PHARMACEUTICAL APPLICATIONS						VETERINARY PRODUCTS
	Skin creams	Baby care	Body lotions	Fatty creams	Depilatory	Hair care & hair styling	Ethnic hair care & hair relaxer	Lip Care		Creams, lotions, pastes, ointments, base creams	Cold rubs	Pain release ointments	Eye ointments	Fango & thermal therapy		
<b>Petroleum Jelly / Petrolatum White</b>																
VARA AB	•			•						•	•		•			
VARA 4800	•									•						
MERKUR 110	•		•	•											•	
MERKUR 500	•	•	•	•		•	•			•					•	
MERKUR 500 USP	•	•	•	•		•	•			•						
MERKUR 546	•						•									
MERKUR 771	•			•		•				•	•	•	•		•	
MERKUR 773	•	•				•		•		•	•	•				
MERKUR 873	•			•						•						
MERKUR 894	•	•		•						•	•	•	•			
<b>Petroleum Jelly / Petrolatum Yellow</b>																
MERKUR 620	•	•	•	•		•	•			•	•	•			•	
MERKUR 690	•			•		•	•			•	•	•			•	
<b>Hard Paraffin Wax</b>																
HYWAX 5203			•	•	•	•	•			•		•		•		
HYWAX 5403	•		•			•	•			•		•				
HYWAX 5603	•	•	•	•		•				•		•				
HYWAX 5803						•				•						
<b>Soft Paraffin Wax</b>																
HYWAX 4610	•		•	•	•	•								•		
HYWAX 5009	•	•	•	•	•	•	•			•		•		•		
HYWAX 8021						•								•		
<b>Microcrystalline Wax</b>																
HYWAX 0907								•		•						
HYWAX 2528	•	•				•		•		•						
HYWAX 1800	•							•		•						
HYWAX 3971	•	•	•	•		•	•	•		•						
HYWAX 7837	•					•	•	•		•						
<b>Ozokerite / Ceresin</b>																
HYWAX 3977	•	•	•	•				•		•						
HYWAX 6403	•		•			•	•									

# 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.
- MERKUR 873 is a very pure Petroleum Jelly without any anti-oxidant.

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

Base material for ointments, eye creams and haircare, the main ingredients of skincare creams, baby care, hand-cleansing pastes, body lotions, hand and skin creams, and eye make-up.

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

In pharmaceutical applications, the products are used as excipients, base materials, active ingredient carriers and consistency regulators. Petroleum jellies are a component of many dermatological preparations.

### Key benefits

#### **Petroleum Jellies:**

- Are an effective carrier for active ingredients
- Protect skin from dehydration
- Are a universal excipient

For cosmetic and pharmaceutical formulations in which a yellow product is needed, including udder balm/fatty ointments, and other skin protection creams and veterinary products, we recommend the use of our yellow types listed in the following table. These yellow petroleum jellies are hydrogenated for highest purity, delivering white basic grades that 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

Product	Lovibond color	Density 80°C kg/m <sup>3</sup>	Congealing Point °C	Consistency 25°C mm/10	Viscosity 100°C mm <sup>2</sup> /s	Drop point °C	Melting range °C	Full compliance with pharmacopoeias
<b>Pharmaceutical Petroleum Jellies, White</b>								
<b>VARA AB</b>	0.7 y max	820	50-55	165-185	9.0	35-70		Ph. Eur.
<b>VARA 4800</b>	1.0 y max	810	50-56	155-175	7.0	35-70		Ph. Eur.
<b>MERKUR 110</b>	1.0 y max	810	50-56	170-190	7.0	35-70		Ph. Eur.
<b>MERKUR 500</b>	0.5 y max	810	50-56	140-160	7.0	35-70		Ph. Eur.
<b>MERKUR 500 USP</b>	0.5 y max	810	45-55	95-120	6.0	35-70	38-60	Ph. Eur./ USP
<b>MERKUR 546</b>	1.0 y max	805	48-58	155-175	7.0	35-70		Ph. Eur.
<b>MERKUR 771</b>	1.0 y max	810	50-55	155-175	5.0 - 9.0	35-70		Ph. Eur.
<b>MERKUR 773</b>	0.5 y max	825	47-53	155-175	12.0	35-70	38-60	Ph. Eur./ USP
<b>MERKUR 873</b>	0.7 y max	820	49-55	190-210	7.5 - 10.0	35-70		Ph. Eur.
<b>MERKUR 894</b>	0.5 y max	820	45-53	150-180	14.0	35-70		Ph. Eur.
<b>Pharmaceutical Petroleum Jellies, Yellow</b>								
<b>MERKUR 620</b>	2.0 - 3.9	820	48-56	150-175	5.0 - 9.0	40-60	38-60	Ph. Eur.*/ USP
<b>MERKUR 690</b>	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)

# Hywax 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 creams and lotions. HYWAX 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 comply with the Cosmetics Europe recommendations for lip care products.

Genuine ozokerite was found in connection with petroleum deposits, from which it was produced by mining. Purified ozokerite is known as ceresin. In cosmetic and pharmaceutical applications white, purified ceresin is still used to this day. However, there are now alternatives to ozokerites and ceresin, which are mixtures of different 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 antistatic and conditioning properties.

\* lipsticks: except Europe

## Key benefits

- Due to their smoothness and low melting behaviour, soft paraffin waxes are ideal for thermal therapy applications, such as hand baths
- Our microcrystalline waxes are compliant with the Cosmetics Europe (CE) Recommendation No. 14
- Ozokerite and ceresin alternatives help to stabilise emulsions

## Typical Data

Product	Congealing Point °C	Oil Content %	Penetration 25°C mm <sup>2</sup> /10	Viscosity 100°C mm <sup>2</sup> /s	Compliance with pharmacopoeia	INCI Name
<b>Hard Paraffin Wax</b>						
HYWAX 5203	52-54	0.0 - 0.5	16-20	3.0 - 5.0	Ph. Eur.	Paraffin
HYWAX 5403	54-56	0.0 - 0.5	16-20	3.0 - 7.0	Ph. Eur.	Paraffin
HYWAX 5603	56-58	0.0 - 0.8	15-19	3.0 - 5.0	Ph. Eur.	Paraffin
HYWAX 5803	58-60	0.0 - 0.5	15-19	4.0 - 5.0	Ph. Eur.	Paraffin
<b>Soft Paraffin Wax</b>						
HYWAX 4610	46-49	0.0 - 2.0	40-80	2.0 - 5.0	-	Paraffin, Microcrystallin Wax
HYWAX 5009	50-52	0.0 - 2.0	40-60	3.0 - 5.0	Ph. Eur.	Paraffin, Microcrystallin Wax
HYWAX 8021	44-48	1.0 - 3.0	60-100	2.0 - 5.0	-	Paraffin, Poly (C30-45 Olefin)
<b>Microcrystalline Wax</b>						
HYWAX 0907	83-94	0.0 - 2.0	4-10	8.5 - 12.5**	-	Microcrystallin Wax*, Paraffin, Synthetic Wax
HYWAX 1800	70-80	0.0 - 2.0	18-22	13.0 - 17.0	USP	Microcrystallin Wax*
HYWAX 3971	70-75	0.0 - 2.0	25-33	12.0 - 16.0	USP	Microcrystallin Wax*
HYWAX 7837	70-80	0.0 - 2.5	25-30	13.0 - 16.0	USP	Microcrystallin Wax*
<b>Ozokerite / Ceresin</b>						
HYWAX 3977	69-72	-	14-18	6.0 - 7.5 ***	USP	Paraffin, Microcrystalline Wax, Synthetic Wax (Synonym: Ceresin)
HYWAX 6403	62-66	-	16-22	5.5 - 7.0	-	Paraffin, Microcrystalline Wax (Synonym: Ceresin)

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

\*\* 120°C

\*\*\* Dyn. viscosity

## Why choosing Hywax

Hywax supplies first-class products offering many benefits for the user. Our products are available all over the world. In addition, our technical expertise extends from Hamburg to all destinations, either directly or through 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-the-art facilities Certified and approved quality

We have set the highest standards, especially for the filling of petroleum jellies. The drums are filled in new plants according to stringent hygienic requirements and to some extent under a protective atmosphere with filtered air in a closed system. In conjunction with production in a closed tank and piping systems, we are thus achieving a standard that 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 health and safety).

\* For non-sterile preparations





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