

Product information sheet

Microcrystalline wax

Issued: March 2011



Please see also our information leaflet "20 facts about our products" as an accompaniment to our product information.

Sasol Wax GmbH

Worthdamm 13-27
20457 Hamburg
Germany

Tel.: +49 40 78115-481
Fax: +49 40 78115-495

personalcare@de.sasol.com
www.sasolwax.com

Origin

Like paraffin waxes, microcrystalline waxes are produced by means of elaborate refining techniques such as distillation, crystallization and de-oiling during the processing of petroleum.

Purity

The microcrystalline waxes covered by this data sheet are liberated almost completely from all impurities and pollutants with the aid of high-pressure hydrogenation, the state-of-the-art purification process. This final production step guarantees their high degree of purity and hence compliance with purity regulations. Examples of the latter include global pharmacopoeia regulations, specifications for the fields of food additives and food packaging as well as regulations for use in cosmetic products. The individual approvals and details are contained in the product overview table.

Chemical structure and properties

Microcrystalline waxes can best be described as multi-component blends consisting of saturated hydrocarbons. Unlike the paraffin waxes, microcrystalline waxes have a significantly elevated content of iso- and cyclo-alkanes. The carbon chains are also considerably longer. These molecular properties result from the brightstock fractions of petroleum processing. They are crucial for the microcrystalline structure, the ductility, smoothness and the outstanding oil absorption capacity of the substances described here.

Applications

Microcrystalline waxes are characterized by their diverse applications. Comprehensive studies have shown that microcrystalline waxes are absolutely safe in **foodstuff applications**. As a consequence of this, the substances have been approved as food additives in the EU under the classification of E905. In the field of personal care, this approval means that they can be used without restriction as gum base, the base material for **lip care products** (COLIPA recommendation) and for other foodstuff applications such as coatings, release agents, etc. Outside of the EU, the FDA regulations are employed for these applications. In **cosmetic and pharmaceutical formulations**, microcrystalline waxes are used as inactive substances, which alongside other constituents, such as petroleum jellies, augment the lipid phase of an emulsion or the ointment base itself. They are used to improve oil binding properties and stability, to adapt the hardness of a preparation and whenever a hard but smooth and ductile grease component with low crystalline characteristics is required. They add structure and hardness to lip balm sticks and other products in stick form used as beauty products, without being excessively crystalline.

Approvals

Cosmetics: Cosmetics regulations, European cosmetics regulation (No. 1223/2009)

Colipa: Recommendation No. 14 lip and oral care products

Food additive/Food Contact: DE (BfR Recommendation XXV.), EU (PM Ref. No. 95859; E905), US (FDA 172.886)

Pharmacopoeia: EU (monograph planned), DE (DAC/Deutscher Arzneimittel-Codex), US (USP XXXI / NF 26: Microcrystalline wax)

INCI: Microcrystalline Wax

Supply forms

Please contact us for details of which forms of supply we can offer you.

Product information sheet

Microcrystalline wax

Issued: March 2011

Application matrix

	Foodstuffs E905 FDA	Pharma USP PH. Eur. (Entwurf)	Lip care Lipsticks	Creams & lotions Consistency regulator Oil binder
Entire product range	•	•	•	•



Product range

The following table provides an overview of the personal care microcrystalline waxes and their physical properties.

	Solidification point °C	Oil content %	Needle penetration at 25 °C mm/10	Viscosity at 100 °C mm ² /s	Colour
Sasolwax 0907	88 - 102	0.0 - 2.0	4 - 10	8.5 - 12.5 *	whitish
Sasolwax 1800	70 - 80	0.0 - 2.0	18 - 22	13.0 - 17.0	white
Sasolwax 2528	72 - 76	0.0 - 4.0	25 - 35	12.0 - 16.0	white
Sasolwax 3279	76 - 82	0.0 - 2.0	14 - 18	13.0 - 19.0	white
Sasolwax 3971	70 - 75	0.0 - 2.0	25 - 33	12.0 - 16.0	white
Sasolwax 3973	70 - 76	0.0 - 2.0	25 - 35	12.0 - 16.0	white
Sasolwax 6147	62 - 66	0.0 - 3.0	25 - 35	12.0 - 16.0	white
Sasolwax 7334	66 - 72	0.0 - 7.0	65 - 90	13.0 - 16.0	whitish-yellow
Sasolwax 7835	70 - 80	0.0 - 2.5	25 - 30	13.0 - 16.0	white

* 120 °C

¹⁾ Not a constituent part of specifications.

This publication/data sheet and the information within were assembled and checked with utmost care and are to be regarded as accurate as of the date of issue. Nevertheless, Sasol Wax GmbH takes no responsibility or warrant for its timeliness, completeness, quality or correctness. This publication/data sheet is for information only and does not warrant any particular product properties. It is the user's obligation to check the products and use them safely as well as to comply with all applicable laws and regulations. Sasol Wax GmbH shall not be responsible for any damage or injury in particular resulting from use, other than the stated use of the material, from any failure to abide to recommendations, or from any dangers inherent in the nature of the material. It is recommended to contact the manufacturer for further information, especially if it is intended to use the product for applications other than the stated. In addition, the most recent version of our General Business Conditions will apply.

March 2011

Sasolwax 7835

The gas chromatogram shows the typical distribution of C chains and the high proportion of iso- and cyclo-alkanes. ¹⁾

