

**SPECIFICATIONS AND AUTHORISATION OF WAXES AT THE EUROPEAN UNION (EU),  
JOINT FAO/WHO EXPERT COMMITTEE ON FOOD ADDITIVES (JECFA), AND EUROPEAN PHARMACOPOEIA (EDQM)**

**Prepared by the European Wax Federation  
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Abbreviations:

EU: European Union  
JECFA: Joint FAO/WHO Expert Committee on Food Additives  
EDQM: European Pharmacopoeia

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**NATURAL, PLANT- AND INSECT-BASED WAXES**

<b>PRODUCT 1</b>	<b>INSTITUTION / APPLICATION / NAME</b>	<b>NUMBER</b>	<b>OTHER NAME</b>	<b>DEFINITION</b>	<b>AUTHORIZATION / PUBLICATION</b>
<b>B E E S W A X</b>	EU / Food Additive / Beeswax, white and yellow	E 901 EINECS: 232-383-7	Yellow wax  White wax	Obtained by melting the walls of the honeycomb made by the honey bee, <i>Apis mellifera L.</i> , with hot water and removing foreign matter.  Obtained by bleaching yellow beeswax.	Use & Applications: <a href="#">Directive 95/2/EC</a> , as amended, (consolidated text)  Specifications: Directive 2008/84/EC, as amended by <a href="#">Directive 2009/10/EC</a>
	JECFA / Food Additive / Beeswax	INS 901 CAS: 8006-40-4 (Yellow beeswax) CAS: 8012-89-3 (White beeswax)	INS 901	Same as per EU. Also, mixture of esters of fatty acids and fatty alcohols, hydrocarbons and free fatty acids; minor amounts of free fatty alcohols.	Use & Applications: <a href="#">Codex General Standard for Food Additives</a> (GSFA) -Online Database-  Specifications: <a href="#">Combined Compendium of Food Additive Specifications</a> -Online Database-
	EU / Food Contact Additive / <u>Plastics</u> : Beeswax  <u>Regenerated cellulose film</u> : Beeswax	Ref. No 36880 CAS: 8012-89-3	None	None; EU food additive status applies.	Use as additive in plastics: <a href="#">Directive 2002/72/EC</a> , as amended, (consolidated text)  Restrictions: None, other than the generic Overall Migration Limit (OML) of 60 mg/kg food.  Use as additive in the coating of regenerated cellulose film: <a href="#">Directive 93/10/EC</a> , as amended, (consolidated text)
	EDQM / Beeswax, yellow	Monograph No 70	Cera flava	Obtained by melting the walls of the honeycomb made by the honey bee, <i>Apis mellifera L.</i> , with hot water and removing foreign matter.	European Pharmacopoeia: <a href="#">EDQM Monograph 70 Summary</a> -Online Database-
	EDQM / Beeswax, white	Monograph No 69	Cera alba	Obtained by bleaching yellow beeswax	European Pharmacopoeia: <a href="#">EDQM Monograph 69 Summary</a> -Online Database-

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**NATURAL, PLANT- AND INSECT-BASED WAXES**

<b>PRODUCT 2</b>	<b>INSTITUTION / APPLICATION / NAME</b>	<b>NUMBER</b>	<b>OTHER NAME</b>	<b>DEFINITION</b>	<b>AUTHORIZATION / PUBLICATION</b>
<b>C A N D E L I L L A  W A X</b>	EU / Food Additive / Candelilla wax	E 902 EINECS: 232-347-0	None	Obtained from the leaves of the candelilla plant, <i>Euphorbia antisiphilitica</i> .	Use & Applications: <a href="#">Directive 95/2/EC</a> , as amended, (consolidated text)  Specifications: <a href="#">Directive 2008/84/EC</a>
	JECFA / Food Additive / Candelilla wax	INS 902 CAS: 8006-44-8	INS 902	Same as per EU. Also, consists primarily of odd-numbered n-alkanes (C <sub>29</sub> to C <sub>33</sub> ), together with esters of acids and alcohols with even-numbered carbon chains (C <sub>28</sub> to C <sub>34</sub> ). Free acids, free alcohols, sterols, neutral resins, and mineral matter are also present.	Use & Applications: <a href="#">Codex General Standard for Food Additives</a> (GSFA) -Online Database-  Specifications: <a href="#">Combined Compendium of Food Additive Specifications</a> -Online Database-
	EU / Food Contact Additive / <u>Plastics:</u> Candelilla wax  <u>Regenerated cellulose film:</u> Candelilla wax	Ref. No 41760 CAS: 8006-44-8	None	None; EU food additive status applies.	Use as additive in plastics: <a href="#">Directive 2002/72/EC</a> , as amended, (consolidated text)  Restrictions: None, other than the generic Overall Migration Limit (OML) of 60 mg/kg food.  Use as additive in the coating of regenerated cellulose film: <a href="#">Directive 93/10/EC</a> as amended (consolidated text)

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**NATURAL, PLANT- AND INSECT-BASED WAXES**

PRODUCT 3	INSTITUTION / APPLICATION / NAME	NUMBER	OTHER NAME	DEFINITION	AUTHORIZATION / PUBLICATION
C A R N A U B A  W A X	EU / Food Additive / Carnauba wax	E 903 EINECS: 232-399-4	None	Purified wax obtained from the leaf buds and leaves of the Brazilian Mart wax palm, <i>Copernicia cerifera</i> .	Use & Applications: <a href="#">Directive 95/2/EC</a> , as amended, (consolidated text)  Specifications: <a href="#">Directive 2008/84/EC</a>
	JECFA / Food Additive / Carnauba wax	INS 903 CAS: 8015-86-9	INS 903	The refined wax obtained from the fronds of the Brazilian tropical palm tree <i>Copernicia cerifera</i> (Arruda) Mart. [syn. <i>C. purnifera</i> (Muell.)]; a complex mixture of several chemical compounds, predominantly esters, e.g. aliphatic esters, alpha-hydroxy esters, cinnamic aliphatic diesters, free acids, free alcohols, hydrocarbons and resins.	Use & Applications: <a href="#">Codex General Standard for Food Additives</a> (GSFA) -Online Database-  Specifications: <a href="#">Combined Compendium of Food Additive Specifications</a> -Online Database-
	EU / Food Contact Additive / <u>Plastics:</u> Carnauba wax  <u>Regenerated cellulose film:</u> Carnauba wax	Ref. No 42720 CAS: 8015-86-9	None	None; EU food additive status applies.	Use as additive in plastics: <a href="#">Directive 2002/72/EC</a> , as amended, (consolidated text)  Restrictions: None, other than the generic Overall Migration Limit (OML) of 60 mg/kg food.  Use as additive in the coating of regenerated cellulose film: <a href="#">Directive 93/10/EC</a> as amended (consolidated text)
	EDQM / Carnauba wax	Monograph No 597	Cera carnauba	The purified wax obtained from the leaves of <i>Copernicia cerifera</i> Mar .	European Pharmacopoeia: <a href="#">EDQM Monograph 597 Summary</a> -Online Database-

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**MONTAN WAXES**

PRODUCT 4	INSTITUTION / APPLICATION / NAME	NUMBER	OTHER NAME	DEFINITION	AUTHORIZATION / PUBLICATION
M O N T A N  W A X E S	EU / Food Additive / Montan acid esters	E 912	None	Montan acids and/or esters with ethylene glycol and/or 1,3-butanediol and/or glycerol	Use & Applications: <a href="#">Directive 95/2/EC</a> , as amended, (consolidated text)  Specifications: <a href="#">Directive 2008/84/EC</a>
	EU / Food Contact Additive / <u>Plastics</u> : Montanic acids and/or their esters with ethyleneglycol and/or with 1,3-butanediol and/or with glycerol	Ref. No 67840	Fatty acids, montan-wax, ethylene esters (IUPAC)	None	Use as additive in plastics: <a href="#">Directive 2002/72/EC</a> , as amended, (consolidated text)  Restrictions: None, other than the generic Overall Migration Limit (OML) of 60 mg/kg food.
	EU / Food Contact Additive / <u>Plastics</u> : Montan wax	Ref. No 67850 CAS: 8002-53-7	None	<u>Description</u> : Wax obtained by extraction of lignite	Use as additive in plastics: <a href="#">Directive 2002/72/EC</a> , as amended, (consolidated text)  Restrictions: None, other than the generic Overall Migration Limit (OML) of 60 mg/kg food.
	EU / Food Contact Additive / <u>Regenerated cellulose film</u> : Montan waxes, comprising purified montanic (C <sub>26</sub> to C <sub>32</sub> ) acids and/or their esters with ethanediol and/or 1,3 butanediol and/or their calcium and potassium salts	None	None	None	Use as additive in the coating of regenerated cellulose film: <a href="#">Directive 93/10/EC</a> as amended (consolidated text)

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**SYNTHETIC, PE- AND PP-BASED WAXES**

<b>PRODUCT 5</b>	<b>INSTITUTION / APPLICATION / NAME</b>	<b>NUMBER</b>	<b>OTHER NAME</b>	<b>DEFINITION</b>	<b>AUTHORIZATION / PUBLICATION</b>
<b>P O L Y E T H Y L E N E</b>	<b>W A X, O X I D I S E D</b> EU / Food Additive / Oxidised polyethylene wax	E 914	None	Polar reaction products from mild oxidation of polyethylene	Use & Applications: <a href="#">Directive 95/2/EC</a> , as amended, (consolidated text)  Specifications: <a href="#">Directive 2008/84/EC</a>

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**SYNTHETIC, PE- AND PP-BASED WAXES**

<b>PRODUCT 6</b>	<b>INSTITUTION / APPLICATION / NAME</b>	<b>NUMBER</b>	<b>OTHER NAME</b>	<b>DEFINITION</b>	<b>AUTHORIZATION / PUBLICATION</b>
<b>P O L Y E T H Y L E N E</b>	EU / Food Contact Additive / <u>Plastics</u> : Polyethylene wax	Ref. No 80000 CAS: 9002-88-4	None	None	Use as additive in plastics: <a href="#">Directive 2002/72/EC</a> , as amended, (consolidated text)  Restrictions: None, other than the generic Overall Migration Limit (OML) of 60 mg/kg food.

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**SYNTHETIC, PE- AND PP-BASED WAXES**

PRODUCT 7	INSTITUTION / APPLICATION / NAME	NUMBER	OTHER NAME	DEFINITION	AUTHORIZATION / PUBLICATION
P O L Y P R O P Y L E N E	EU / Food Contact Additive / <u>Plastics</u> : Polypropylene wax	Ref. No 81060 CAS: 9003-07-0	None	None	Use as additive in plastics: <a href="#">Directive 2002/72/EC</a> , as amended, (consolidated text)  Restrictions: None, other than the generic Overall Migration Limit (OML) of 60 mg/kg food.



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**PARAFFIN AND HYDROCARBON WAXES**

PRODUCT 8	INSTITUTION / APPLICATION / NAME	NUMBER	OTHER NAME	DEFINITION	AUTHORIZATION / PUBLICATION
<b>M I C R O C R Y S T A L L I N E  W A X</b>	EU / Food Additive / Microcrystalline wax	E 905	Petroleum wax Hydrocarbon wax	Refined mixtures of solid, saturated hydrocarbons, obtained from petroleum or synthetic feedstocks.	Use & Applications: <a href="#">Directive 95/2/EC</a> , as amended, (consolidated text)  Specifications: Directive 2008/84/EC, as amended by <a href="#">Directive 2009/10/EC</a>
	JECFA / Food Additive / Microcrystalline wax	INS 905c(i) (GSFA)	None	None	Use & Applications: <a href="#">Codex General Standard for Food Additives</a> (GSFA) -Online Database-
		INS 905(c) (Specs)	INS 905(c) Petroleum wax	Refined mixture of solid, saturated hydrocarbons, mainly branched paraffin, obtained from petroleum.	Specifications: <a href="#">Combined Compendium of Food Additive Specifications</a> -Online Database-
	EU / Food Contact Additive / <u>Plastics</u> : Waxes, refined, derived from petroleum based or synthetic hydrocarbon feedstocks	Ref. No 95859	None	None	Use as additive in plastics and specifications: <a href="#">Directive 2002/72/EC</a> , as amended, (consolidated text)  Restrictions: None, other than the generic Overall Migration Limit (OML) of 60 mg/kg food.
	<u>Regenerated cellulose film</u> : Refined paraffin and microcrystalline waxes	None	None	None	Use as additive in the coating of regenerated cellulose film: <a href="#">Directive 93/10/EC</a> as amended (consolidated text)
	EDQM / Microcrystalline wax	Monograph No 2399 <b>(Draft)</b>	None	Refined mixture of solid, saturated hydrocarbons, mainly branched paraffin, obtained from petroleum. It may contain a suitable antioxidant <b>(Tentative)</b>	European Pharmacopoeia: <a href="#">EDQM Monograph 2399 Summary</a> -Online Database-

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**PARAFFIN AND HYDROCARBON WAXES**

<b>PRODUCT 9</b>	<b>INSTITUTION / APPLICATION / NAME</b>	<b>NUMBER</b>	<b>OTHER NAME</b>	<b>DEFINITION</b>	<b>AUTHORIZATION / PUBLICATION</b>
<b>S Y N T H E T I C  P A R A F F I N  W A X</b>	EU / Food Additive / Microcrystalline wax	E 905	Hydrocarbon wax, Fischer-Tropsch wax, Synthetic wax, Synthetic paraffin	Refined mixtures of solid, saturated hydrocarbons, obtained from petroleum or synthetic feedstocks.	Use & Applications: <a href="#">Directive 95/2/EC</a> , as amended, (consolidated text)  Specifications: Directive 2008/84/EC, as amended by <a href="#">Directive 2009/10/EC</a>
	EU / Food Contact Additive / <u>Plastics</u> : Waxes, refined, derived from petroleum based or synthetic hydrocarbon feedstocks	Ref. No 95859	None	None	Use as additive in plastics and specifications: <a href="#">Directive 2002/72/EC</a> , as amended, (consolidated text)  Restrictions: None, other than the generic Overall Migration Limit (OML) of 60 mg/kg food.
	<u>Regenerated cellulose film</u> : Refined paraffin and microcrystalline waxes	None	None	None	Use as additive in the coating of regenerated cellulose film: <a href="#">Directive 93/10/EC</a> as amended (consolidated text)
	EDQM / Paraffin, synthetic	Monograph No 2263 <b>(Draft)</b>	Paraffinum artificiosum	Synthesized by Fischer-Tropsch process from carbon monoxide and hydrogen which are catalytically converted to a mixture of paraffin hydrocarbons. This mixture may be fractionated and is purified by hydrogenation. It may contain a suitable antioxidant <b>(Tentative)</b>	European Pharmacopoeia: <a href="#">EDQM Monograph 2263 Summary</a> -Online Database-

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**PARAFFIN AND HYDROCARBON WAXES**

<b>PRODUCT 10</b>	<b>INSTITUTION / APPLICATION / NAME</b>	<b>NUMBER</b>	<b>OTHER NAME</b>	<b>DEFINITION</b>	<b>AUTHORIZATION / PUBLICATION</b>
<b>P A R A F F I N S</b>	JECFA / Food Additive / Paraffin wax (withdrawn)	INS 905 (c) (withdrawn)	Hydrocarbon waxes; petroleum wax (withdrawn)	Refined mixture of solid saturated hydrocarbons obtained from petroleum (withdrawn)	Note: This group of substances including low and intermediate melting point waxes was withdrawn in 1995. It had a group ADI with microcrystalline wax.
	EU / Food Contact Additive / <u>Plastics: Waxes,</u> paraffinic, refined, derived from petroleum based or synthetic hydrocarbon feedstocks	Ref. No 95858	None	None	Use as additive and Specifications in plastics: <a href="#">Directive 2002/72/EC</a> , as amended, (consolidated text)  Restrictions: Specific Migration Limit (SML) of 0,05 mg/kg food.
	EDQM / Paraffin, hard	Monograph No 1034	Paraffinum solidum	Purified mixture of solid saturated hydrocarbons generally obtained from petroleum. It may contain a suitable oxidant.	European Pharmacopoeia: <a href="#">EDQM Monograph 1034 Summary</a> -Online Database-

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**PETROLATUM**

<b>PRODUCT 11</b>	<b>INSTITUTION / APPLICATION / NAME</b>	<b>NUMBER</b>	<b>OTHER NAME</b>	<b>DEFINITION</b>	<b>AUTHORIZATION / PUBLICATION</b>
<b>P E T R O L A T U M</b>	JECFA / Food Additive / Petroleum Jelly (Specs)	INS 905 (b) (Specs)	INS 905b Vaseline, Petrolatum (Specs)	Purified mixture of semi-solid, saturated hydrocarbons, mainly of paraffinic nature, obtained from petroleum. It may contain antioxidants approved for food use. (Specs)	Specifications: <a href="#">Combined Compendium of Food Additive Specifications</a> -Online Database-
	EDQM / Paraffin, white soft	Monograph No 1799	Vaseline album	Purified and wholly or nearly decolorised mixture of semi-solid hydrocarbons, obtained from petroleum. It may contain a suitable antioxidant. White soft paraffin described in this monograph is not suitable for oral use.	European Pharmacopoeia: <a href="#">EDQM Monograph 1799 Summary</a> -Online Database-
	EDQM / Paraffin, yellow soft	Monograph No 1554	Vaseline flavum	Purified mixture of semi-solid hydrocarbons, obtained from petroleum. It may contain a suitable antioxidant.	European Pharmacopoeia : <a href="#">EDQM Monograph 1554 Summary</a> -Online Database-