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22 Date of Revision

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Ceresin

1 Nonproprietary Names

None adopted.

2 Synonyms

Cera microcrystallina; cera mineralis alba; ceresin refined; ceresine; ceresine wax; ceresine wax white; ceresin wax; cerin; cerosin; *Cirashine CS*; earth wax; *GS-Ceresin*; *Koster Keunen Ceresine*; microcrystalline wax; mineral wax; purified ozokerite; *Ross Ceresine Wax*; white ceresin wax; white ozokerite wax. *See also* Section 13.

3 Chemical Name and CAS Registry Number

Ceresin wax [8001-75-0]

4 Empirical Formula and Molecular Weight

Ceresin is a mineral wax composed of a wide and complex range of long-chain, high-molecular-weight, saturated and unsaturated hydrocarbons related to methane, ranging from C₂₀ to C₃₂.

5 Structural Formula

See Section 4.

6 Functional Category

Coating agent; emulsion stabilizing agent; gelling agent; opacifier; stiffening agent; viscosity-increasing agent.

7 Applications in Pharmaceutical Formulation or Technology

Ceresin is used as a stiffening agent in creams^(1,2) and ointments,^(3,4) and as an emulsion stabilizer, opacifier, viscosity-increasing agent, gelling agent, and thickener in pharmaceutical protective, topical, and vaginal creams.⁽⁷⁾ It is also used in cosmetics^(5–7) and in a wide variety of personal care products^(8,9) (*see* Section 18).

Ceresin is often used as a substitute for ozokerite wax, beeswax, and paraffin wax. It acts as a rheological modifier at low concentrations (2–3%) and has the ability to create very small crystallites, which crosslink and establish a network structure that does not allow flow in practical conditions.⁽¹⁰⁾ Ceresin produces