

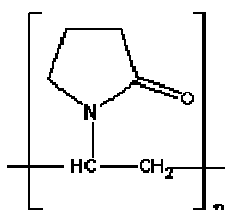
# POVIPHARM<sup>®</sup>

## Polyvinylpyrrolidone

### Product data sheet

#### Definition

- ✧ Chemical name:  $\alpha$ -Hydro- $\omega$ -hydropoly[1-(2-oxopyrrolidin-1-yl)ethylene]. 1-ethenylpyrrolidin-2-one homopolymer.
- ✧ CAS Registry number: 9003-39-8.
- ✧ INCI Name: PVP.
- ✧ Other Names: povidone, povidonum, polyvidone, 1-vinyl-2-pyrrolidinone polymer.
- ✧ Molecular and Structural Formula:  $(C_6H_9NO)_n$



- ✧ POVIPHARM<sup>®</sup> is a synthetic linear polymer produced in accordance with the cGMP.
- ✧ POVIPHARM<sup>®</sup> complies with Ph.Eur. and USP/NF.

#### General characteristics

- ✧ White to creamy-white, odourless, hygroscopic powder.
- ✧ Freely soluble in water, acids and in a variety of organic solvent (ethanol 96 %, methanol, chloroform, ketones); practically insoluble in ether, hydrocarbons and mineral oil.
- ✧ Good hygroscopicity and good adhesion.

#### Main applications as pharmaceutical excipient

- ✧ Binder in tableting and binder in wet granulation process,
- ✧ Flow assistant for capsules formulations,
- ✧ Enhance the dissolution of poorly soluble drugs from solid-dosage forms,
- ✧ Dissolving assistant for injection,
- ✧ Coating agent and suspending, stabilizing or viscosity-increasing agent of topical and oral suspensions and solutions,
- ✧ Dispersant for liquid medicine and stain,
- ✧ Stabilizer for enzyme and heat sensitive drug,
- ✧ Co-precipitant for poorly soluble drugs and lubricator.

#### Pharmaceuticals grades

- ✧ POVIPHARM<sup>®</sup> exists in 3 grades characterised by their viscosity in solution and expressed as a K-value: K25, K30 and K90.

# **POVIPHARM<sup>®</sup>**

## *Polyvinylpyrrolidone*

### ***Applications as cosmetic ingredient***

- ✧ Film forming agent, viscosity-enhancement agent, lubricator and adhesive.
- ✧ Key component of hair fixatives, aerosol sprays, mousse, gels and lotions & solution.
- ✧ Convenience assistant in skin care product, hair-drying reagent, shampoo, eye makeup, lipstick, deodorant, sunscreen and dentifrice.
- ✧ Emulsions stabilizer in creams in lotions.
- ✧ Dispersant for hair colorants. Foam stabilizer and gelling agent in tooth pastes.

### ***Chemical and physical specifications***

<b>specification</b>	<b>K25</b>	<b>K30</b>	<b>K90</b>
<i>pH (in 5% solution)</i>	3.0-5.0	3.0-5.0	4.0-7.0
<i>Viscosity, as K-value</i>	24-27	29-32	85-95
<i>Aldehyde (ppm)</i>	≤500	≤500	≤500
<i>Peroxides, as H<sub>2</sub>O<sub>2</sub> (ppm)</i>	≤400	≤400	≤400
<i>Hydrazine (ppm)</i>	≤1	≤1	≤1
<i>Impurity A, 1-vinylpyrrolidin-2-one (ppm)</i>	≤10	≤10	≤10
<i>Impurity B, 2-pyrrolidone (%)</i>	≤3.0	≤3.0	≤3.0
<i>Heavy metals (ppm)</i>	≤10	≤10	≤10
<i>Sulphated ash (%)</i>	≤0.1	≤0.1	≤0.1
<i>Assay, as Nitrogen content (%)</i>	11.5-12.8	11.5-12.8	11.5-12.8
<i>Water (%)</i>	≤5.0	≤5.0	≤5.0

### ***Compatibility***

- ✧ POVIPHARM<sup>®</sup> is compatible in solution with a wide range of inorganic salts, resins and others compounds.
- ✧ POVIPHARM<sup>®</sup> may form molecular adducts in solution with sodium salicylate, salicylic acid, phenobarbital, sulfathiazole and other chemicals.
- ✧ POVIPHARM<sup>®</sup> forms complexes with some preservatives.

### ***General information***

- ✧ Packaging: 25 or 50 kg plastic drum, inner lined with PE bags.
- ✧ Storage conditions: in a dry place at room temperature.
- ✧ Shelf life 3 years guaranteed.
- ✧ Certificate of Analysis and Material Safety Data Sheet attached to each delivery.

For further information, please contact

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