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# **Crospovidone XL**

### **1 SYNONYMS**:

Crosslinked polyvinlypyrrolidone, Polyvinylpolypyrrolidone

## **1.1 STRUCTURAL FORMULA**

 $\begin{array}{c|c}
 & H & H_2 \\
 & C & C
\end{array}$ 

CAS NO.:25249-54-1;9003-39-8

Ignition temperature: 440 ℃

Melting Point:≥220°C

decomposition

Bulk density: 0.25-0.45g/cm<sup>3</sup>

Insoluble in water an solvent.

Formula:  $(C_6H_9NO)_n$ 

## 1.2 SPECIFICATIONS Crospovidone XL (EP10.0)

No.	Items	Specification
1.	Appearance	Hygroscopic, white or yellowish-white powder
2.	Solubility	Practically insoluble in water, ethanol 96% and methylene chloride
3.	Identifications A, B, C	Pass
4.	Identifications D	Residue fraction > 15% as Type A
5.	Peroxides, ppm	≤ 400
6.	Water soluble substances, %	≤ 1.5
7.	Vinylpyrrolidone, ppm	≤ 10
8.	Loss on Drying, %	≤ 5.0
9.	Sulfated ash, %	≤ 0.1
10.	Heavy metals(As Lead),ppm	≤ 10
11.	Nitrogen Content, %	11.0 - 12.8
12.	Hydration Capacity	3 - 9
13.	Particle Size, μm	40 - 120
14.	Powder flow	Positive
15.	Settling volume, ml	≥ 60



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16.	*Total Aerobic Plate Count CFU/g	≤ 100
17.	*Mold and Yeast CFU/g	≤ 100
18.	*Staphylococcus aureus CFU/g	Negative
19.	*Salmonella CFU/g	Negative
20.	* Pseudomonas aeruginosa CFU/g	Negative
21.	* E.coli CFU/g	Negative

Note: The above tests with \* are performed randomly.

#### 1.3 DESCRIPTION

The raw material used for Crospovidone production are sodium hydroxide and water .They are not of animal-origin or plant-origin. Crospovidone behaves as a white or creamy white powder with faint characteristic odor, which is easily hydrophilic and capable of complexion with such substance as phenol, etc. It is completely insoluble with relatively high crosslink density and does not form gels that can impede disintegration, dissolution and drug release.

#### **1.4 SYNTHESIS FLOW CHART**

Vinylpyrrolidone + sodium hydroxide+ cross-linking +water washing centrifuge drying packaging

#### **1.5 APPLICATIONS**

1,Beverage industry:

Crospovidone can be used in

- -Improving the quality and extends the shelf-life of beer by absorbing the polyphenyls and tannoids.
- Prevention of 'pinking' and 'browning' reactions in white and sparkling wines
- Enhanced aroma and flavor in red wines
- 2,Pharmaceutical Industry: Provide rapid disintegration in a wide range of oral solid dosage formulations and processes

#### 1.6 PACKING

20kgs Plastic drum/ Fibre drum

### **1.7 SAFETY**

There is no critical hazard to man and environment. Care should be used when in contact with the powder dust during usage. If adhered to skin or mucosa, please use water to wash.





2020.01



### 2.0 STORAGE & HANDLING

Crospovidone is rather stable. Store in an airtight container, protected from the humidity (the product is hygroscopic).

## 2.1 SHELF LIFE

The shelf life is three years.