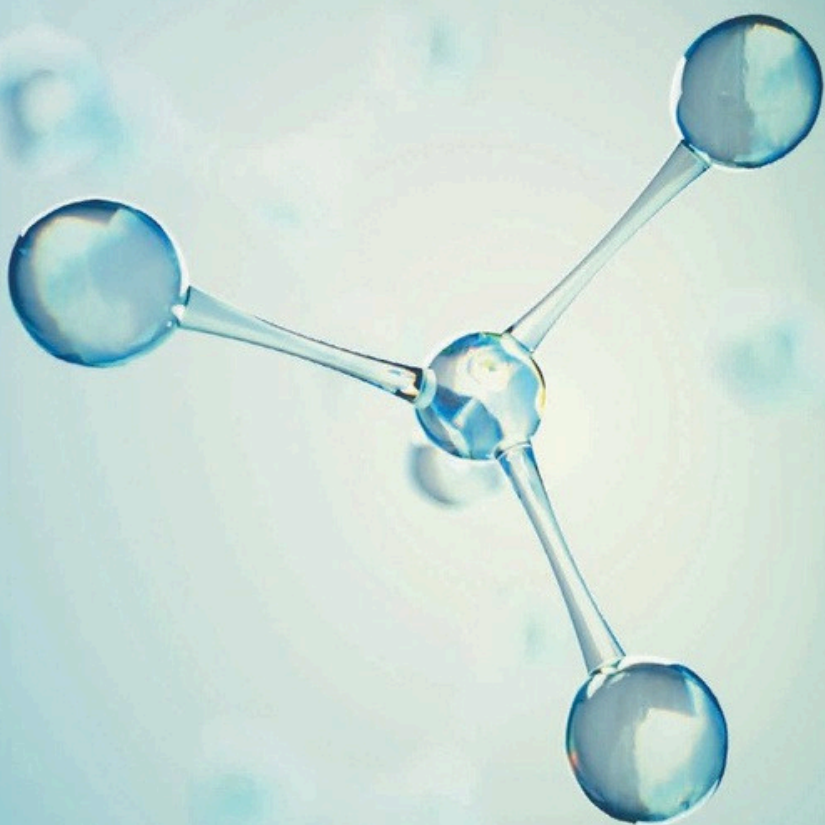


CYCLODEXTRINS

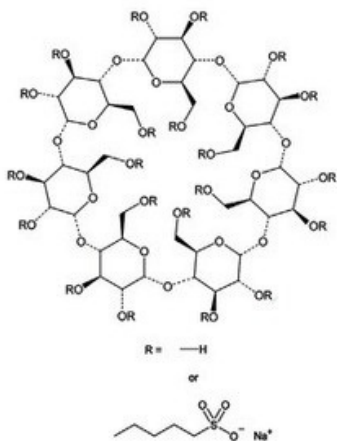


BETADEX SULFOBUTYL ETHER SODIUM

CEP Certificate: No.R0-CEP 2021-025 Rev 00

US FDA DMF: 29394

CAS NO.: 182410-00-0



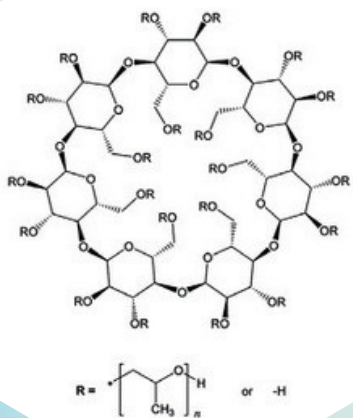
HYDROXYPROPYL BETA CYCLODEXTRIN

US FDA DMF: 033403

Hydroxypropyl Gamma Cyclodextrin

(CAS # 128446-34-4)

CAS NO.: 128446-35-5



Methyl Beta Cyclodextrin (CAS # 128446-

36-6-) Alpha Cyclodextrin (CAS # 10016-

20-3) Beta Cyclodextrin (CAS # 7585-39-

9)

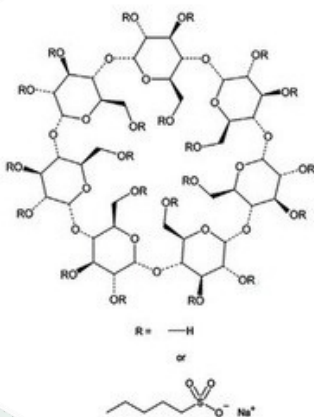
SULFOBUTYL ETHER BETA CYCLODEXTRIN SODIUM

(Betadex Sulfoethyl Ether Sodium, SBE- β -CD)

CEP Certificate No.: NO.RO-CEP 2021-025-Rev 00

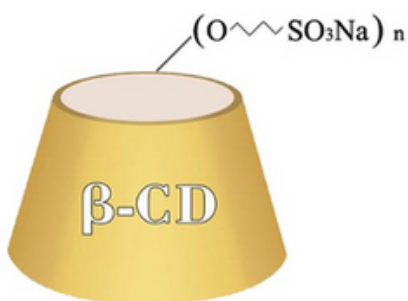
US FDA DMF NO.: 29394

CAS NO.: 182410-00-0



- **Standard** USP, EP, Enterprise Standard
- **Grade** Injection
- **Packing** 10kg/drum, 20kg/drum, 1kg/bag, 500g/bag
- **Application** Pharmaceuticals
- **Main Application** Solubilizer, wetting agent, chelating Agent (complexing agent) and Polyvalent masking agent.

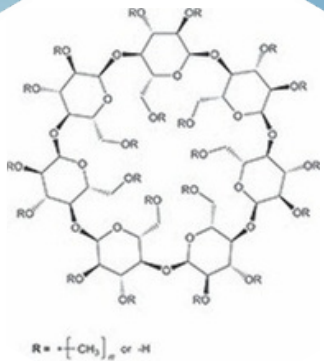
Sulfoethyl ether beta cyclodextrin sodium (SBE- β -CD) is a new type of anionic high soluble cyclodextrin derivatives. It could include drug molecules to form covalent compounds so that increase the drug's stability, solubility, safety. It could reduce the renal toxicity, moderate drug's hemolysis, control the release rate and cover up the bad smell. It has been used in injection, oral, nasal and eye medicines. It could has a special affinity and inclusion for nitrogen drugs.



METHYL BETA CYCLODEXTRIN

US FDA DMF NO.: 039021

CAS NO.: 128446-36-6



- **Molecular Formula**

$\text{C}_{42}\text{H}_{70-n}\text{O}_{35}(\text{CH}_3)_n$

- **Standard**

Enterprise standard

- **Appearance**

White powder, sweet, insipid and innocuous

- **Packing**

20kg/drum, 1kg/bag

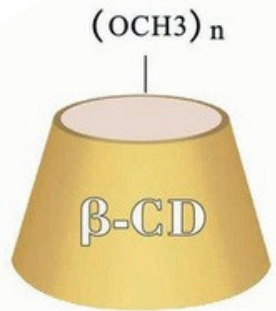
- **Product Description**

1 In the field of medicine, Methyl Beta Cyclodextrin can be used as cosolvent, encapsulation mixture, regulatory release agent, micro-capsule, penetrant etc. It can be used in oral, ocular, nasal, rectal, pulmonary, injection and other formulations, play a role in solubilizing, improving stability and bioavailability, covering up undesirable odor, regulating release speed and so on. It has better solubilization for oil soluble substances.

2 In the field of cosmetics,

Methyl Beta Cyclodextrin could be made as clathrate with essence or other raw materials to play a slow release, stability and long-term effect, and can also be used as thickening agent, surfactant etc. it has a application in deodorant, perfume, shampoo, skin cream, soap, talcum powder and so on.

3 Other fields: Methyl Beta Cyclodextrin can be used for plant extraction, separation of chiral substances, grafting of special functional textiles.

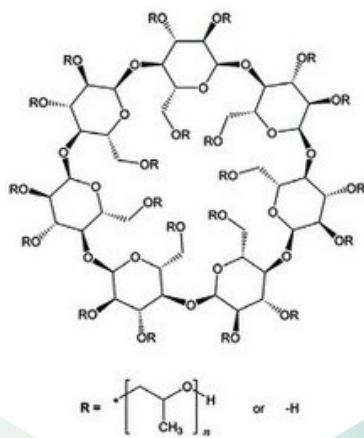


HYDROXYPROPYL BETA CYCLODEXTRIN

(Hydroxypropyl Betadex, 2-Hydroxypropyl Beta Cyclodextrin) (INCI NAME: Hydroxypropyl Cyclodextrin)

US FDA DMF NO.: 033403

CAS NO.: 128446-35-5 (94035-02-6)



- **Standard**

EP, USP, BP ChP

- **Grade**

Oral and Injection

- **Packing**

10kg/drum, 20kg/drum,
20kg/carton, 1kg/bag, 500g/bag

- **Application**

Pharmaceuticals, Food, Cosmetics

- **Main Application**

Solubilizer, Embedding medium, Stabilizer,
Odor absorber

- **In Pharmaceuticals**

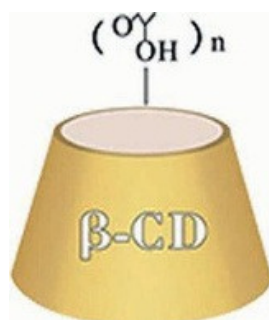
Hydroxypropyl beta cyclodextrin is a solution to insoluble or low solubility drugs (including plant extracts). Through molecular encapsulation, it could increase the drug solubility and control the release rate of the drug, increase the drug's bioavailability and reduce the toxic side-effects.

- **In Food**

Hydroxypropyl beta cyclodextrin could increase the stability of molecular nutrition and long-term effect, cover up or adjust bad smell and tastes of food nutrition molecular, improve production process and product quality and extend the shelf-life.

- **In Cosmetics**

Hydroxypropyl beta cyclodextrin used as stabilizer, emulsifier and odor absorber. It could reduce organic molecules stimulation to skin mucosal and enhance the stability of the effective components. Prevent volatile, oxidation of nutrient composition, increase the solubility of insoluble flavours and fragrances and keep the fragrance slow releasing and lasting.



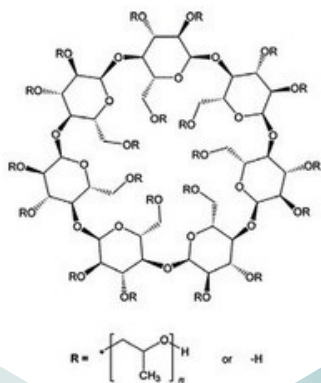
HYDROXYPROPYL GAMMA CYCLODEXTRIN

(Hydroxypropyl Betadex,

2-Hydroxypropyl Beta

US FDA DMF NO.: 937123

CAS NO.128446-34-4



- **Molecular Formula** C₄₈

H₈₀-N O₄₀- (C₃H₇O)_n

- **Standard**

Enterprise Standard

- **Grade**

Injection

- **Packing**

20kg/drum 1kg/bag

- **Product Description**

1In the field of medicine, with larger cavity, Hydroxypropyl Gamma Cyclodextrin is easier to form clathrates with large molecules. It can be used as cosolvent, encapsulation mixture, regulatory release agent, micro-capsule, penetrant etc. it can be used in oral, ocular, nasal, recta pulmonary, injection and other formulations, play a role in solubilizing, improving stability and bioavailability, covering up undesirable odor, regulation release speed and so on. It has better solubilization for oil soluble substances. It's widely used in eye drops.

2In the field of cosmetics, Hydroxypropyl Gamma

Cyclodextrin could be made as clathrate with essence or other raw materials to play a slow release, stability and long-term effect, and can also be used as thickening agents, surfactant etc. it has an application in perfume shampoo, skin cream, soap, talcum powder and so on.

3Other fields: Hydroxypropyl Gamma Cyclodextrin can be used for plant extraction, separation of chiral substances etc.



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