

Excipient

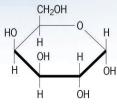
ICH-Q7 GMP Manufactured Product

GALACTOSE(D), Blend Batch, Plant Derived, EP, NF, LBLE*, GMP Grade

*Low Bioburden, Low Endotoxin

INTENDED FOR USE IN PHARMA MFG. REQUIRING ICH-Q7, EXCIPIENT GRADE QUALITY & REGULATORY COMPLIANCE

D-Galactose, plant derived is intended for use upstream and downstream in biological drug manufacturing processes. For this purpose BioSpectra has categorized our product as an excipient though one of the primary functions is to be used as a nutrient in mammalian cell culture media. Given the sensitivity of these cells in regard to growth, BioSpectra's D-Galactose is manufactured to meet high purity specifications and low bioburden and endotoxin demands.



CAS #: 59-23-4

Molecular Formula: $C_6H_{12}O_6$ Solubility in Water (g/L): 600

F.W.: 180.16 g/mol **pKa @ 25°C:** 12.4

BIO EXCIPIENT GRADE | Product Code: GALP-3350

C₆H₁₂O₆ • F.W. 180.16 g/mol • CAS# 59-23-4



EP Compendia

| ANALYSIS | | SPECIFICATIONS | |
|------------------------|------------------------------------------------------------------|-------------------------------------------|--|
| Acidity or Alkalinity | | Passes Test | |
| Appearance | | White to almost white, crystalline powder | |
| Appearance of Solution | | Passes Test | |
| Assay | | 97.0% – 102.0% | |
| Barium | | Passes Test | |
| Identification A | | Passes Test | |
| Identification B | | Passes Test | |
| Identification C | | Passes Test | |
| Microbial Content | TAMC | ≤ 100 CFU/g | |
| Proteins | | ≤ 0.1 mg/ml | |
| Related Substances | Impurities A and B Unspecified Impurities Total Impurities | ≤ 1.0% ≤ 0.3% each ≤ 2.0% | |
| Sulfated Ash | | ≤ 0.1% | |
| Water | | ≤ 1.0% | |



Made in the USA

NF Compendia

| ANALYSIS | | SPECIFICATIONS |
|-------------------------------------|---------------------------------------|------------------|
| Acidity | Passes Test | |
| Appearance of Solution | Passes Test | |
| Assay | | 98.0% - 102.0% |
| Barium | | Passes Test |
| Identification A | Passes Test | |
| Identification B | | Passes Test |
| Identification C | | Passes Test |
| Limit of Lead | | ≤ 0.5 ppm |
| Microbial Content | Escherichia coli | Absent |
| | Pseudomonas aeruginosa | Absent |
| | Salmonella species | Absent |
| | Staphylococcus aureus | Absent |
| | TAMC | ≤ 1000 CFU/g |
| | TYMC | ≤ 100 CFU/g |
| | Lactose and 1, 6-galactosyl-galactose | ≤ 0.6% |
| ¹ Related Substances | Galacturonic acid | ≤ 0.6% |
| | Dextrose | ≤ 0.6% |
| | Tagatose | ≤ 0.6% |
| | Dulcitol | ≤ 0.6% |
| | Arabinose | ≤ 0.6% |
| | Any Unspecified Impurity | ≤ 0.2% |
| | Total Impurities | ≤ 1.0% |
| Residue on Ignition | ≤ 0.1% | |
| Optical Rotation, Specific Rotation | | +78.0° to +81.5° |
| Water | ≤ 1.0% | |

Additional Analyses

| ANALYSIS | SPECIFICATIONS |
|---------------------------------|----------------|
| Endotoxins | ≤ 2.5 EU/g |
| Glucose | ≤ 0.1% |
| Lead | ≤ 0.5 ppm |
| Residual Ethanol | ≤ 500 ppm |
| Residual Isopropanol | ≤ 5000 ppm |
| Residual Methanol | ≤ 100 ppm |
| Residual Methyl Isobutyl Ketone | ≤ 500 ppm |

Lead Time: Stock- 1 month / No Stock- 6 months

Minimum Order Quantity: 25kg

General Product Description:

- The Manufacturing of D-Galactose, Plant Derived GALP-3350 is performed at BioSpectra's Bangor, PA facility utilizing multiuse equipment.
- D-Galactose, Plant Derived is a White to almost white crystalline powder
- Molecular Formula: C₆H₁₂O₆
- Molecular Weight: 180.16 g/mol
- CAS Number: 59-23-4
- There are no known major food allergens (as defined by FDA and WHO) in the manufacture of this product.
- BioSpectra certifies that all D-Galactose, Plant Derived GALP-3350 manufactured at BioSpectra, and its raw materials, are not derived from or come in contact with animal parts, products, and/or byproducts.
- D-Galactose, Plant Derived manufactured at BioSpectra and any raw materials used in the manufacture of D-Galactose, Plant Derived at BioSpectra are not subject to genetic modification.
- Synonyms: D-Galactopyranose

GMP Compliance:

Bio Excipient Grade D-Galactose, Plant Derived GALP-3350 is suitable for use as an excipient. It is manufactured in accordance with the ICH-Q7 Good Manufacturing Practice Guide. This grade of D-Galactose, Plant Derived is not suitable to be used as an Active Pharmaceutical Ingredient, Drug Product or Household Item.

Retest Date:

The recommended retest period for D-Galactose, Plant Derived is two years from the date of manufacture.

Storage and Shipping Conditions:

Ship and store in ambient temperature. Keep container tightly closed in a dry and well-ventilated place.

Package Sizes:

10kg & 25kg pails.