

# Riboflavin High Flow 100

Human Nutrition

**BASF**

The Chemical Company

## Chemical names

Riboflavin, lactoflavin

## EU name

Riboflavin E 101

**CAS No.** 83-88-5

**EINECS No.** 201-507-1

## Product number

10562037 kosher

## Description

Yellow or orange-yellow, free-flowing, fine granular powder with a mild odor. Riboflavin High Flow 100 is produced in a fermentation process using the microorganism *Ashbya Gossypii*. This unique production process guarantees a product of highest quality and purity.

## Solubility

Somewhat soluble in water, virtually insoluble in alcohol.

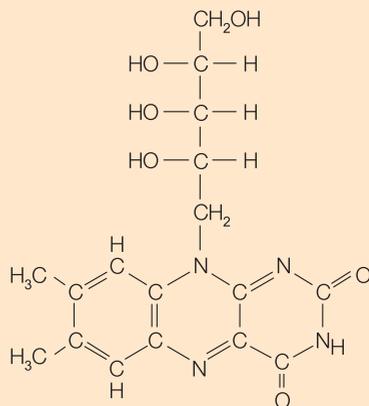
## Monographs

The product complies with the current "Riboflavin" Ph.Eur., the "Riboflavin" USP and the "Riboflavin" FCC monographs as well as the "E 101" EU-directives for food colorants.

A grade complying with the requirements of the "Riboflavin" Ph.Jap. monograph may be supplied upon request.

## Particle-size distribution

Min. 95% smaller than 250 µm (60 mesh USP)



$C_{17}H_{20}N_4O_6$

Molar mass 376.4 g/mol

## Specification

Assay:	98.0 - 101.0%
Specific rotation:	-135° to -115° (Ph.Eur.) +56.5° to +59.5° (USP)
Lumiflavine:	conforms
Loss on drying (2 h, 105°C):	max. 1.5%
Sulphated ash:	max. 0.1 g/100 g
Organic volatile impurities (USP):	conforms
Absorbance ratios	
A 373 nm/267 nm:	0.31 - 0.33
A 444 nm/267 nm:	0.36 - 0.39

Unless otherwise stated, the methods of analysis are to be found in the European Pharmacopoeia (Ph.Eur.).

### **Stabilization/Stability**

Stored in the unopened original packaging at room temperature (max. 25°C), protected from light and moisture, the product is stable for at least 36 months. Since the product is hygroscopic, it is recommended to hermetically reseal the remaining product in the packaging. Riboflavin is resistant to heat in acid solutions in the absence of light. It is sensitive to alkaline substances, heavy metal salts and light. Reducing agents convert it to colorless leuco compounds.

### **Standard packaging**

10 and 25 kg.

Please see appendix I for further information.

### **Storage**

The product should be transported and stored in the tightly sealed original packaging at a temperature below 25°C, protected from light and moisture.

### **Applications**

#### Dietary supplements:

The product can be used in all solid and liquid dosage forms such as tablets, hard shell capsules, effervescent and other instant formulae. Riboflavin High Flow 100 has been developed for the direct compression of high-dosage vitamin B complex tablets. It is ideal for use in multivitamin formulations and equally suitable for low concentrated solutions and fine powder grade. In addition, it can be used as a colorant in liquid form and powder preparations, which must be dissolved in water prior to use.

#### Food products:

Riboflavin High Flow 100 is recommended for the fortification of various food and beverage products such as multivitamin juices, baby food and instant drink powders. It is also suitable for use as a colorant in liquid food products. Compared to the fine powder grade it has the following advantages: due to better flowability it is much easier to handle, produces less dust and lower static charge.

#### Pharmaceutical products:

Both an EU-Drug Master File (CTD) and a US-Drug Master File (CTD) are available.

### **Note**

Riboflavin High Flow 100 must be handled in accordance with the Safety Data Sheet.

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

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