KEY TO MONOGRAPHS

Version date of the text

01/2021:0884
corrected 11.8

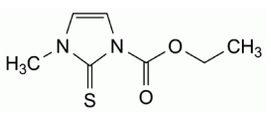
Text reference number

Modification to be taken into account as soon as possible and not later than the end of the month following the month of publication of Ph. Eur. 11.8

Link to further information on the text (e.g. Knowledge database) for smartphones/tablets with camera and barcode reader app

CARBIMAZOLE(1)

Carbimazolum



Footnote mainly for harmonised texts

$C_7H_{10}N_2O_2S$

[22232-54-8] M_r 186.2

CAS number

DEFINITION

Ethyl 3-methyl-2-thioxo-2,3-dihydro-1*H*-imidazole-1-carboxylate.

Chemical name in accordance with IUPAC nomenclature rules

Content: 98.0 per cent to 102.0 per cent (dried substance).

♦CHARACTERS

Appearance: white or yellowish-white, crystalline powder.

Solubility: slightly soluble in water, soluble in acetone and in ethanol (96 per cent). ♦

Black and white diamonds appear in harmonised texts only. See chapter 5.8. *Pharmacopoeial harmonisation* for more information

IDENTIFICATION

First identification: B.

◊*Second identification: A, C.*

Application of the first and second identification is defined in the *General Notices* (chapter 1)

A. Melting point (*2.2.14*): 122 °C to 125 °C.◊

B. Infrared absorption spectrophotometry (*2.2.24*).

Preparation: discs.

Comparison: *carbimazole CRS*

Reference standard available from the EDQM (see https://crs.edqm.eu)

◊C. Thin-layer chromatography (*2.2.27*).

Test solution. Dissolve 10 mg of the substance to be examined in *methylene chloride R* and dilute to 10 mL with the same solvent.

Reagent described in chapter 4

Reference solution. Dissolve 10 mg of *carbimazole CRS* in *methylene chloride R* and dilute to 10 mL with the same solvent.

Plate: *TLC silica gel GF_{254} plate R*

Mobile phase: *acetone R*, *methylene chloride R* (20:80 *V/V*).

Further information on certain reagents available in the Knowledge database (https://go.edqm.eu/knowledge)

Application: 10 µL.

Development: over 3/4 of the plate.

Drying: in air for 30 min.

Detection: examine in ultraviolet light at 254 nm.

Results: the principal spot in the chromatogram obtained with the test solution is similar in position and size to the principal spot in the chromatogram obtained with the reference solution.◊

TESTS

Related substances. Liquid chromatography (*2.2.29*).

Reference to a general chapter

Test solution. Dissolve 5.0 mg of the substance to be examined in 10.0 mL of a mixture of 20 volumes of *acetonitrile R* and 80 volumes of *water R*. Use this solution within 5 min of preparation.

Footnote is mainly included for harmonised texts

(1) This monograph has undergone pharmacopoeial harmonisation. See chapter 5.8. *Pharmacopoeial harmonisation.*