# KEY TO MONOGRAPHS



*Version date of the text*

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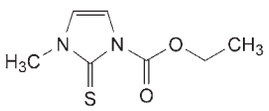
*Modification to be taken into account as soon as possible and not later than the end of the month following the month of publication of Supplement 9.7*

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

## CARBIMAZOLE[(1)]

Carbimazolum



$C_7H_{10}N_2O_2S$

[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

*For the meaning of black and white diamonds see chapter 5.8. Pharmacopoeial harmonisation*

*Appearance*: white or yellowish-white, crystalline powder.

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

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 http://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*

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

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

*Application*: 10 µL.

*Development*: over 3/4 of the plate.

*Drying*: in air for 30 min.

*Vertical line in the margin indicating where the text has been modified (technical modification)*

*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.

*Horizontal line in the margin indicating where part of the text has been deleted (technical modification)*

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.



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