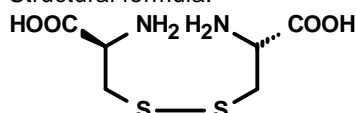


# L-CYSTINE for food use only

## Product description

Structural formula:



Molecular weight: 240,30  
 Empirical formula:  $C_6H_{12}O_4S_2$   
 CAS No.: 56-89-3

Characters: a white or almost white, crystalline powder, practically insoluble in water and alcohol. It dissolves in dilute solutions of alkali hydroxides. L-Cystine is the amino acid dimer formed when a pair of L-Cysteine molecules are joined by a disulfide bond through oxidation. L-Cysteine is one of the 20 natural amino acids and, besides methionine, the only one which contains sulfur. WACKER has developed a new production method for L-Cystine via fermentation from non-animal and non-human raw materials.

## Application

L-Cystine Food is used for the production of savory flavours, mainly the ones associated with meat and roasting. It is especially needed for processed flavors where a Maillard reaction is involved.

## Storage

Storage and transportation: a temperature of 25°C is recommended for optimal product quality, but 40°C up to 180 days does not affect the quality. L-CYSTINE for food use only has a shelf life of at least 24 months when stored in unbroken original packaging in dry storage areas.

The best use before date of each batch is shown on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

## Packaging

Units of 25 kg

## Registration (selected countries / regions)

Origin: vegetarian fermentation  
 Kosher certified  
 Halal certified

## Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site <http://www.wacker.com>.

## Product data

Specification data	Inspection Method	Value
Appearance	Visual	positive
Identification	PH. EUR. (2.2.24)	positive
Appearance of solution	PH. EUR. (2.2.1)	colorless, clear liquid
Assay	PH. EUR. (2.2.20)	98,5 - 101,5 %
Residue on ignition	PH. EUR. (2.4.14)	max. 0,1 %
Loss on drying	PH. EUR. (2.2.32)	max. 0,2 %
Heavy metals	PH. EUR. (2.4.8)	max. 10 ppm
Arsenic	PH. EUR. (2.4.2)	max. 3 ppm
Lead	ICP	max. 5 ppm
Specific rotation	PH. EUR. (2.2.7)	$[\alpha]_{20/D}^{-225} - -215^\circ$

## Typical general characteristics

Typical general characteristics	Inspection Method	Value
Solubility in water at 20 °C	EU-GL.A.6	0,122 g/l
pH-Value	specific method	5 - 6,5 (0,04 g/l H <sub>2</sub> O)

Figures below "Typical general characteristics" are intended as a guide and should not be used in preparing specifications.

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The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

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