

**TECHNICAL DATA SHEET**

0402-TDS-ENG-2025

| <b>CISTINA-L (EUR. PH.) FARMACEUTICA</b> |                                                                                           |                          |
|------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------|
| DESCRIPTION DCI: cystine                 |                                                                                           | DESCRIPTION DOE: CISTINA |
| CAS Nº: 56-89-3                          | EC Nº: 200-296-3                                                                          | AEMPS CODE: 1266A        |
| MOL. WEIGHT: 240,3                       | MOL. FORMULA: C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub> | ARTICLE CODE: 0402       |

| ATTRIBUTES                       | SHOULD BE                                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------|
| Appearance                       | White or almost white, crystalline powder                                                                   |
| Solubility                       | Practically insoluble in water and in ethanol (96 %). It dissolves in dilute solutions of alkali hydroxides |
| Identification A                 | Complies                                                                                                    |
| Identification B                 | Complies                                                                                                    |
| Appearance of solution           | Clear and not more intensely coloured than ref. sol. Y7                                                     |
| Specific optical rotation        | -224 / -218                                                                                                 |
| Ninhydrin-positive substances    |                                                                                                             |
| Any ninhydrin-positive substance | =< 0.2 %                                                                                                    |
| Total                            | =< 0.5 %                                                                                                    |
| Chlorides                        | =< 200 ppm                                                                                                  |
| Sulfates                         | =< 300 ppm                                                                                                  |
| Ammonium                         | =< 0.02 %                                                                                                   |
| Iron                             | =< 10 ppm                                                                                                   |
| Loss on drying                   | =< 0.5 %                                                                                                    |
| Sulfated ash                     | =< 0.1 %                                                                                                    |
| Assay                            | 98.5 - 101.0 %                                                                                              |

**COMPLIES WITH**

European Pharmacopoeia 11.0

**STORAGE**

Keep closed and store in a dry place at room temperature. Protect the product from light.

**REMARKS**

L-Cystine is subjected to the requirements of the ICH Q3D "Elemental Impurities" guideline and the requirements of guides EMA/CHMP/ICH/82260/2006.

Absence of N-nitrosamines impurities has been ensured after a risk evaluation according to ICH Q9, ICH M7 and in accordance with guidelines EMA/428592/2019 Rev 2 and EMA/189634/2019.

Certificates of residual solvents, allergens, non-GMO and BSE-TSE, among others, are available upon request.

All methods of analysis are validated by official pharmacopoeias or are validated by internal methods of the manufacturer, which can be obtained at specific request. The above information does not exempt from the obligation to identify the product before use.