Sensorial evaluations:

|  |  |
| --- | --- |
| **Appearance** | Clear viscous syrupy liquid, without admixtures and foreign inclusions |
| **Colour** | From amber with slightly brownish hue to brown |
| **Taste** | Typical for apple juice, slightly changed within the thermal processing, without off-tastes |
| **Flavour** | Neutral, with light apple flavor, without off-flavour |

Analytical specifications:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **In the source product** | **Unit** | **Min** | **Target** | **Max** | **Test method** | |  | | --- | | **Remarks** | |
| Soluble solids content | ˚Brix refr. | 70,0 |  |  | GOST 28562 | COA1 |
| Titrable acidity (as malic acid @ pH 8,1 end-point) | % | 2,0 |  |  | DSTU 4957 | COA1 |
| **In juice diluted to 11.2 Brix (refr.)** |  |  |  |  |  |  |
| Turbidity | NTU |  | < 2,5 | 5,0 | GOST 8756.11 |  |
| Stability | NTU |  | < 1,0 | 1,5 | heat-cold test |  |
| Color intensity (transmission @ 440 nm) | % | 20 | 40 | 80 | Spectrophotometry 10 mm cuvette |  |
| Sediment | % |  |  | 0,5 | DSTU 7000 |  |
| Mineral, plant, and foreign impurities | % |  |  | absent | DSTU 4913 |  |
| Ethanol content | g/l |  | < 2 | 3 | DSTU ISO 2448 |  |
| Pectin |  |  |  | free | 1:2 ethanol test |  |
| Starch |  |  |  | free | iodine test |  |

Food safety specifications*:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **In juice diluted to 11.2 Brix (refr.)** | **Unit** | **Target** | **Max** | **Test method** |
| Hydroxymethyl furfural (5-HMF) | mg/l | < 5 | 20 | GOST 29032 |
| Patulin | mg/kg |  | 0,05 | DSTU 4947 |
| Nitrates | mg/kg | < 5 | 60 | DSTU 4948 |
| **Toxic elements** |  |  |  |  |
| Lead (Pb) | mg/kg | < 0,05 | 0,4 | GOST 26932, DSTU ISO 6633, GOST 30178 |
| Arsenic (As) | mg/kg | < 0,1 | 0,2 | GOST 26930, DSTU ISO 6634 |
| Cadmium (Cd) | mg/kg | < 0,05 | 0,03 | GOST 26933, DSTU ISO 6561, GOST 30178 |
| Mercury (Hg) | mg/kg | < 0,01 | 0,02 | GOST 26927, DSTU ISO 6637 |
| Copper (Cu) | mg/kg | < 5,0 | 5,0 | GOST 26931, DSTU ISO 7952, GOST 30178 |
| Zinc (Zn) | mg/kg | < 5,0 | 10,0 | GOST 26934, DSTU ISO 6636-2, DSTU ISO 6636-3, GOST 30178 |
| **Pesticides** |  |  |  |  |
| Hexachlorocyclohexane (α-, β-, γ-isomers) | mg/kg | < 0,01 | 0,05 | GOST 30349 |
| DDT and its metabolites | mg/kg | < 0,05 | 0,1 | GOST 30349 |
| **Radionuclides** |  |  |  |  |
| Strontium-90 | Bq/kg | < 70 | 10 | МВ 5778 |
| Cesium-137 | Bq/kg | < 10 | 70 | МВ 5779 |
| The specification complies with the Ukrainian Medical and Biological Requirements and Sanitary Norms of Quality for Food Raw Materials and Food Products N 5061-89 of 01.08.89, State Sanitary Norms “Acceptable Levels of Radionuclides 137Cs and 90Sr in food and potable water”. Target levels for nitrates and toxic elements are in compliance with AIJN Code of Practice, and ones for pesticides are within the limits indicated in the relevant EC Directives. | | | | |