

GUIDE FORMULATION

by AGRANA Research & Innovation Center



KETCHUP

with AGENAPURE 21.404



| INGREDIENTS | % w/w |
|---------------------|-------|
| PART A: | |
| Water | 10.3 |
| AGENAPURE 21.404 | 4.0 |
| | |
| PART B: | |
| Strained tomatoes | 53.0 |
| Crystal sugar | 16.0 |
| Vinegar (5 % acid)* | 14.0 |
| Salt | 2.0 |
| Citric acid (50 %) | 0.5 |
| White pepper* | 0.1 |
| Bell pepper powder* | 0.1 |

PREPARATION

- Begin by homogenizing Part A and transferring it to the Stephan Universal Machine UM/SK 5 with the cutting blade attachment.
- Mix Part B and add it to the suspension in the Stephan Universal Machine.
- Then, heat mixture while stirring under controlled conditions (50% MM, 60% MW, 200 mbar, 80°C) for 15 minutes to achieve the desired consistency.
- Once heated, cool the mixture to 40°C while stirring, without applying vacuum.
- Finally, fill the ketchup into sterile containers and store it at 4°C to ensure long-term stability and freshness.

The mentioned stirring rate is based on the Stephan machine type UM/SK 5 equipped with a cutting blade and adapted for the production of 1.0 kg end product.

Please be advised that the components supplied by AGRANA Starch are tailored according to their dry substance content. However, it is important to acknowledge that the dry substance content may be subject to natural fluctuations.

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