

PRODUCT QUALITY SPECIFICATION SHEET No. 19

| Issue No.: | 03 | |
|----------------|---------------------|--|
| Date of issue: | January 01, 2018 | |
| Page: | 1/2 | |

Product name:

LU - 1422 - 2

ORYGINAL

Non-GMO declaration:

Acetylated distarch adipate E 1422

Allergen statement: Statement of origin: The product is not derived from or produced using genetically modified organisms

The product does not contain any allergenic ingredients

Poland

A. Organoleptic testing:

| No. Name of property: | | Requirements: | Test method: | |
|-----------------------|--------|--|--------------------|--|
| 1. | Colour | White | Instruction No. 01 | |
| 2. | Odour | Typical with a delicate scent of vinegar | Instruction No. 03 | |

B. Physical and chemical requirements:

| No. | Name of property: | Requirements: | Test method: | |
|-----|---|---------------------------|--|--|
| 1. | Mechanical impurities | unacceptable | Instruction No. 05 | |
| 2. | Moisture content | max. 20% | Instruction No, 08 | |
| 3. | pH value | 5,5 - 7,5 | Instruction No. 09 | |
| 1. | SO ₂ content | max. 10 mg/kg | Instruction No. 11 | |
| 5. | Acetyl groups content | max. 2,0% in dry matter. | Instruction No. 27 | |
| ô. | Adipate groups content | max. 0,135% in dry matter | As per the standards used in accredited laboratories | |
| 7. | Viscosity of 4% paste at 25°C | min. 1000º Bu | Instruction No. 19 | |
| В. | Viscosity of 5% pasteurized paste at 25°C | min. 15000 mPas | Instruction No. 20 | |
| 9. | Viscosity of 5% sterilized paste at 25°C | min. 12000 mPas | Instruction No. 20 | |
| 10. | Ash content | max. 1,0% in dry matter | Instruction No. 12 | |
| 11. | Metal content: | | | |
| | - arsenic | max. 1,0 mg/kg | As per the standards used in | |
| | - lead | max. 2,0 mg/kg | accredited laboratories | |
| | - mercury | max. 0,1 mg/kg | | |

C. Microbiological requirements:

| No. | Name of property: | Requirements: | Test method: |
|-----|-----------------------|--------------------|------------------|
| ١. | Aerobic bacteria | max. 10.000 cfu/1g | As per ISO 4833 |
| 2. | Coliform bacteria | 0 cfu/0,1g | As per ISO 4832 |
| 3. | Salmonella spp. | cfu/25, Absent | As per ISO 6579 |
| 4. | Staphylococcus aureus | cfu/0,1, Absent | As per ISO 6888 |
| 5. | Yeast and mould | max. 500 cfu/1g | As per ISO 21527 |
| 6. | Bacillus cereus | max. 10 cfu/1g | As per ISO 7932 |



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| Page: | 2/2 |

D. Packaging, storage conditions, transport requirements:

| No. | Name of property: | Requirements: | | | |
|-------------------|------------------------|---|--|--|--|
| 1. Packaging type | | Multilayer vented paper bags or flexible big-bag containers. Unit packaging must be approved for food contact | | | |
| 2. | Net content | 25, 800 or 1000kg | | | |
| 3. | Labelling | Consistent with the laws and regulations in force | | | |
| 4. | Storage conditions | Dry, clean and well-ventilated facilities without foreign odours, protected against rodents | | | |
| 5. | Shelf life | 24 months of the manufacture date when stored in original packaging | | | |
| 6. | Transport requirements | Clean and dry means of transport ensuring appropriate protection of the product against damage and moisture. The product is not classified as hazardous within the meaning of transport regulations | | | |

The new document enters into force on the date of its approval

| Name of document | Withdrawn document | | Introduced document | |
|--|--------------------|---------------|---------------------|------------------|
| Name of document | Issue No. | Date of issue | Issue No. | Date of issue |
| Quality specification: LU – 1422 – 2 Acetylated distarch adipate E 1422 | 02 | July 14, 2014 | 03 | January 01, 2018 |

| | Full name | Title | Date | Signature |
|-------------|----------------------|-------------------------------------|-------------|-------------|
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| Verified by | Małgorzata Kozielska | Quality Control Manager | 02.01.2018 | y kozielsko |
| Approved by | Waldemar Kasperski | President of the Board of WPPZ S.A. | 03.01.2018 | (dh |