

## Technical Data Sheet for feed additives GMP+

## Leunapon-ER 35 GMP+

### General product information

|                              |   |
|------------------------------|---|
| <b>Product name</b>          | <b>Leunapon-ER 35 GMP+</b><br>(Glyceryl polyethyleneglycol ricinoleate; E 484)  |
| <b>Categorization</b>        | <b>Feed additive – Functional group 1: technological additives</b>  |
|                              | <b>Emulsifiers:</b> substances that make it possible to form or maintain a homogeneous mixture of two or more immiscible phases in feedingstuffs (according to Annex I of Regulation (EC) No 1831/2003) |
|                              | <b>Animal species and category:</b><br>all animal species and categories  |
|                              | <b>Minimum / maximum dosage [mg/kg]:</b><br>—   |
|                              | <b>Other provisions:</b><br>all feed  |
| <b>Chemical name</b>         | Castor oil, ethoxylated   |
| <b>CAS number</b>            | 61791-12-6  |
| <b>EINECS number</b>         | Polymer   |
| <b>Registration number</b>   | As a polymer, the product is excluded from the registration, evaluation, authorization and restriction of chemicals (EC) No. 1907/2006 (REACH).   |
| <b>Customs tariff number</b> | 3402 42 00  |

### Authorization

Glyceryl polyethyleneglycol ricinoleate (E 484) is currently authorized as technological additive, functional group (c) emulsifier, for all animal species and categories.

According to Article 10 (2) of Regulation (EC) No 1831/2003 the substance „Glyceryl polyethyleneglycol ricinoleate“ is currently in the state of re-evaluation (status as of May 2022).

### Packaging

|            |           |
|------------|-----------|
| Bulk       | 10 – 23 t |
| IBC        | --        |
| steel-drum | --        |

The information provided in this document is based on the best of our knowledge and experience. It is intended as a general description of our product specifications and shall not constitute a guarantee or agreement regarding the quality of the specified products, respectively. The customer remains responsible for the inspection and testing of the specified products, as well as any supplementary information and documents provided alongside with the specified products, in particular the material safety data sheets, in order to determine their suitability for their particular application.

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### Specifications (parameters quoted on CoA)

| Characteristics      | Unit     | Target value | Applied method  |
|----------------------|----------|--------------|-----------------|
| Saponification value | mg KOH/g | 65 – 71      | DIN EN 53 401   |
| Water                | %        | ≤ 2          | DIN 51 777      |
| pH-value (1 % sol.)  |          | 6 – 8        | DIN EN 1262     |
| Acid value           | mg KOH/g | ≤ 2          | DIN EN ISO 660  |
| Gardner              |          | ≤ 5          | DIN EN ISO 4630 |
| Ethylene Oxide       | ppm      | ≤ 1          | DIN EN 13320    |
| 1,4-Dioxane          | ppm      | ≤ 5          | DIN EN 12974    |

### Additional information

|                              |  |
|------------------------------|--|
| Appearance at 20 °C          | liquid, clear, yellow                            |
| Active content               | ≥ 98 %   |
| HLB value (calculated)       | 12,5   |
| Solidification point         | approx. 10 °C (acc. DIN ISO 3016)                |
| Flash point                  | approx. > 200 °C                                 |
| Density at 20 °C             | approx. 1,04 g/cm <sup>3</sup> (acc. DIN 51 757) |
| Kinematic viscosity at 20 °C | approx. 564 mm <sup>2</sup> /s (acc. DIN 51562)  |

### Storage and Handling

Protect the product from heat and direct sunlight and keep the packaging tightly sealed. In enclosed original container product keeps stabile for at least 2 years.  
Prior taking portions all the lot must be homogenised.  
Please refer to the Safety Data Sheet (SDS) for this product for instructions on safe and proper handling and disposal.

|           | Laboratory             | QM | Production | Productmanagement |
|-----------|------------------------|----|------------|-------------------|
| Date      |                        |    |            |                   |
| Signed by |                        |    |            |                   |
| Version   | 07/22 (replaces 11/18) |    |            |                   |