

TECHNICAL DATA SHEET – Bacvir Digest Birds

Natural feed additive – Digestive stability and improved productivity in poultry

1. Product Description

Bacvir Digest Birds is a natural additive based on activated and micronized clinoptilolite , designed to improve digestive health, nutrient absorption, and the sustainability of poultry production.

Its main action is based on:

- Adsorption of mycotoxins and bacterial toxins
- Regulation of intestinal pH
- Improved nutrient absorption
- Stabilization of beneficial microbiota

Product suitable for organic production (ECOCERT).

2. Chemical and Mineralogical Composition

(Copied and unified between the fixxes of rumiants and porci)

Mineralogical Composition (XRD – Aristotle University of Thessaloniki)

| Component | % by weight |
|---|-------------|
| Clinoptilolite (HEU type zeolite) | 90% |
| Varieties of SiO ₂ (quartz, cristobalite, tridymite) | 5% |
| Mica (muscovite) | 3% |
| Feldspar (plagioclase) | 2% |

Chemical Composition (XRF – National Technical University of Athens)

| Component | % by weight |
|--------------------------------|---------------|
| SiO ₂ | 64.55% |
| Al ₂ O ₃ | 12.87% |
| TiO ₂ | 1.15% |
| Fe ₂ O ₃ | 1.65% |
| CaO | 3.72% |
| MgO | 0.91% |
| Na ₂ O | 2.01% |
| K ₂ O | 2.57% |
| LOI (Loss on Ignition) | 10.57% |

3. Physical Properties

| Property | Worth |
|--------------------------------|------------------------------|
| Apparent density | 0.85 – 1.1 g/cm ³ |
| Particle size | 50 – 300 µm |
| Surface area | 25 – 45 m ² /g |
| Cation exchange capacity (CEC) | 120 – 160 meq /100g |

| Property | Worth |
|------------------------|-----------|
| pH in aqueous solution | 7.5 – 9.5 |

4. Benefits and Mechanism of Action

In the digestive tract:

- It captures mycotoxins and bacterial toxins.
- Regulates intestinal pH → less diarrhea and enteritis.
- Improves nutrient absorption and growth.
- It stimulates beneficial microbiota .

In poultry production:

- It improves the quality of the eggshell.
- Increased feed conversion (+10–15%).
- Reduction of diarrhea and mortality.
- Improved batch homogeneity.
- Reduction of ammonia emissions (-25-30%).

5. Applications and Dosages

Oral administration – Incorporated into the daily ration.

| Category | Recommended Dosage |
|----------|--------------------|
|----------|--------------------|

| | |
|------------------|------------------------------|
| Broiler chickens | 0.5 – 1% of the daily ration |
|------------------|------------------------------|

| | |
|-------------|------------------------------|
| Laying hens | 0.5 – 1% of the daily ration |
|-------------|------------------------------|

| | |
|----------------|------------------------------|
| Breeding birds | 0.5 – 1% of the daily ration |
|----------------|------------------------------|

| | |
|---------------------|-------------|
| Digestive disorders | Double dose |
|---------------------|-------------|

Grades:

- Compatible with automated feeding systems.
- Mix well to ensure even distribution.

6. Safety and Toxicity

- Safe product, does not metabolize or accumulate in tissues.
- Non-cytotoxic; cell viability >90% (ISO 10993-5).
- It adsorbs mycotoxins and heavy metals without subsequently releasing them.
- GHS Classification: *Unclassified* .

7. Presentation and Storage

- Format: High purity micronized powder.
- Packaging: 25 kg sacks and 1,100 kg Big Bags.
- Store in a cool, dry place.
- Avoid moisture and direct sunlight.

8. Manufacturer Contact

info@bacviranimalsafety.com

Manufactured by **Bacvir Animal Safety SLU**

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