

# Provian®D

## Food grade powder form of sodium acetate, sodium lactate and sodium diacetate

Provian®D is supplied as a co-spray dried free flowing powder of sodium acetate, sodium lactate and sodium diacetate, making it easy to handle and convenient to store.

### PRODUCT PROPERTIES

Typical Composition	Sodium Acetate (C <sub>2</sub> H <sub>3</sub> NaO <sub>2</sub> ) Sodium Lactate (C <sub>3</sub> H <sub>5</sub> NaO <sub>3</sub> ) Sodium Diacetate (C <sub>4</sub> H <sub>7</sub> NaO <sub>4</sub> )
Product form	White hygroscopic powder
Molecular weight	sodium acetate 82.03 g/mol sodium lactate 112.06 g/mol sodium diacetate 142.09 g/mol
CAS No.	sodium acetate 127-09-3 sodium lactate 72-17-3 sodium diacetate 126-96-5
EINECS No.	sodium acetate 204-823-8 sodium lactate 200-772-0 sodium diacetate 204-814-9
HS-code (major component) EU	2915.29.00
HS-code (major component) US	2915.29.2000
Flash point	>250 °C
Solubility in water: at 0°C at 10°C at 15°C at 20°C at 25°C at 35°C	550 g/litre water 655 g/litre water 700 g/litre water 760 g/litre water 835 g/litre water 980 g/litre water
Sodium content:	22 g Na <sup>+</sup> / 100 g*

\* Sodium chloride has a sodium content of 39 g Na<sup>+</sup>/100 g

### Applications

Provian D is developed as a functional composition aimed at shelf life extension and preservation of meat products. Because of the synergistic effect between acetate, lactate and diacetate, Provian D is very effective in inhibiting the growth of pathogenic bacteria such as *Listeria monocytogenes* and ensuring food safety. Moreover, microbiological tests show that Provian D extends the shelf life of meat products through growth inhibition of total aerobic bacteria.

Provian D has no adverse effects on sensory parameters of meat products, as shown by sensory analysis. It also buffers the pH of cooked meat products.

As a free flowing powder, this product can be applied in various processing steps and also in dry blends.

In all cases, it is advisable to carry out an initial test, so that the precise effects on product properties can be determined.

### Legislation

Dosage levels and allowed applications depend on local legislation, meat type and shelf life requirements. Provian D is composed of food grade sodium acetate (E262i), food grade sodium lactate (E325) and food grade sodium diacetate (E262ii) conform to the latest FCC, EU-legislation and JECFA (FAO/WHO). In Europe, there are no specific regulatory limits, so its usage should be according to the *quantum satis* principle, meaning at levels not higher than necessary to achieve the intended purpose.

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In Europe, Provian D is also approved in pre-packed preparations of fresh minced meat. USA legislation allows a maximum dosage of 0.65% by weight of Provian D on the total formulation in various meat and poultry products. In Canada up to 1% Provian D is allowed.

For other countries, please check local legislation.

The suggested dosage for optimal effect is 0.65%. To determine the optimal dosage for the intended application, testing is recommended.

### Stability

Provian®D is stable for 2 years from date of production. Physical stability and appearance may change before the end of shelf-life if the product is not stored in closed original packing, kept dry and at room temperature or if the pallets are stacked. The product is very hygroscopic and will absorb water from the air if exposed.

### Handling

Provian®D is classified as irritant. Always check the Safety Data Sheet and label before using the product.

### Packaging

Provian D is provided in 25 kg PE valve-bags.

### Safety precautions

Please see the Safety Data Sheet before handling the material.

This product is produced in the Netherlands.

**Warranty.** This information herein is offered as a guide and is believed to be accurate and reliable as of the date of the printing. The values given are not to be considered as a warranty and they are subject to change without prior notice. For additional information regarding our products or for information concerning current specifications, please contact our Technical Service.

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