

**IRISH MEDICINES BOARD ACT 1995**

**EUROPEAN COMMUNITIES (ANIMAL REMEDIES) REGULATIONS 2007**

**(S.I. No. 144 of 2007)**

VPA: **10823/017/001**  
Case No: 7001831

The Irish Medicines Board in exercise of the powers conferred on it by Animal Remedies Regulations (S.I. No. 144 of 2007) hereby grants to:

**Chem-Pharm**

**Ballyvaughan, Co. Clare, Ireland**

an authorisation, subject to the provisions of the said Regulations and the general conditions of the attached authorisation, in respect of the Veterinary Medicinal Product:

**Multivitamin Injection**

The particulars of which are set out in Part 1 and Part 2 of the said Schedule. The authorisation is also subject to any special conditions as may be specified in the said Schedule.

The authorisation, unless previously revoked, shall continue in force from **01/10/2006**.

Signed on behalf of the Irish Medicines Board

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A person authorised in that behalf by the said Board.

(NOTE: From this date of effect, this authorisation replaces any previous authorisation in respect of this product which is now null and void.)

## Part II

### Summary of Product Characteristics

#### 1 NAME OF THE VETERINARY MEDICINAL PRODUCT

Multivitamin Injection.

#### 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

##### Active Substances

Vitamin A Palmitate	15000 I.U.
Vitamin D3 (Cholecalciferol)	25 micrograms
Vitamin E (Alpha tocopheryl acetate)	20 mg
Vitamin B1 (Thiamine hydrochloride)	10 mg
Vitamin B2 (Riboflavin Sodium Phosphate)	5 mg
Vitamin B6 (Pyridoxine)	3 mg
Nicotinamide	35 mg
Dexpanthenol	25 mg
Vitamin B12 (Cyanocobalamin)	25 micrograms

##### Excipients

Chlorocresol (Preservative)	1 mg
Butylated hydroxyanisole	0.1 mg
Butylated hydroxytoluene	0.1 mg

For a full list of excipients see section 6.1.

#### 3 PHARMACEUTICAL FORM

Solution for injection.

A gold coloured sterile aqueous solution.

#### 4 CLINICAL PARTICULARS

##### 4.1 Target Species

Cattle, Sheep, Pigs.

##### 4.2 Indications for use, specifying the target species

For the prevention and treatment of vitamin deficiencies in animals, particularly during periods of illness, convalescence and general unthriftiness.

##### 4.3 Contraindications

None known.

#### 4.4 Special warnings for each target species

None.

#### 4.5 Special precautions for use

##### Special precautions for use in animals

None.

##### Special Precautions to be taken by the Person Administering the Product to Animals

None.

#### 4.6 Adverse reactions (frequency and seriousness)

None known.

#### 4.7 Use during pregnancy, lactation or lay

Multivitamin Injection can be safely administered to pregnant and lactating animals.

#### 4.8 Interaction with other medicinal products and other forms of interaction

None known.

#### 4.9 Amounts to be administered and administration route

Administer by intramuscular or subcutaneous injection. Avoid the introduction of contamination during use. The injection may be repeated at intervals of 10-14 days.

Cattle:	20-30 ml
Calves, sheep and pigs:	5-10 ml
Weaners and lambs:	2-5 ml
Piglets up to 9kg (20 lb):	0.5-2 ml

#### 4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

Not applicable.

#### 4.11 Withdrawal Period(s)

Foodstuffs must not be taken for human consumption during the treatment period.

Edible tissues:

Cattle, Pigs, Sheep:	28 days
Milk:	Zero days.

## 5 PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES

Vitamin A is converted to retinol in the eye and is also responsible for the stability of cellular membranes.

Vitamin D<sub>3</sub> plays a major role in the regulation of calcium and phosphate plasma concentrations.

Vitamin E functions as an antioxidant and free radical agent particularly for the unsaturated fatty acids in the phospholipids of cell membranes.

Vitamin B<sub>1</sub> acts as a co-enzyme in the breakdown of glucose and glycogen.

Vitamin B<sub>2</sub> Sodium Phosphate is phosphorylated to form the co-enzymes Riboflavin-5-phosphate and Flavin Adenine Dinucleotide (FAD) which act as hydrogen recipients and donors.

Vitamin B<sub>6</sub> is converted to pyridoxal phosphate which functions as a co-enzyme with the transaminases and decarboxylases in the metabolism of proteins and amino acids.

Nicotinamide is converted to the essential co-enzymes Nicotinamide Adenine Dinucleotide (NAD) and Nicotinamide Adenine Dinucleotide Phosphate (NADP).

Pantothenol or pantothenic acid is converted to Co-enzyme A which has a key role in the metabolism of carbohydrates and amino acids and in the synthesis of fatty acids, steroids and acetyl co-enzyme A.

Vitamin B<sub>12</sub> is required for the synthesis of nucleic acid components, synthesis of red blood cells and the metabolism of propionate.

## 6 PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Chlorocresol  
Citric Acid / Sodium Hydroxide Solution  
Polysorbate 80  
Disodium Edetate  
Propylene Glycol  
Butylated hydroxyanisole  
Butylated hydroxytoluene  
Water for Injections

### 6.2 Incompatibilities

None known.

### 6.3 Shelf-life

Shelf life of the veterinary medicinal product as packaged for sale: 2 years

Shelf life after first opening the immediate packaging: 28 days

#### **6.4 Special precautions for storage**

Do not store above 25<sup>0</sup>C.  
Protect from light.

#### **6.5 Nature and composition of immediate packaging**

100 ml type II glass (amber) containers, sealed with nitril rubber bungs and aluminium caps.

#### **6.6 Special precautions for the disposal of unused veterinary medicinal products or waste materials**

Any unused product or waste material should be disposed of in accordance with national requirements.

### **7 MARKETING AUTHORISATION HOLDER**

Chem-Pharm Ltd  
Ballvaughan  
Co Clare  
Ireland

### **8 MARKETING AUTHORISATION NUMBER(S)**

VPA 10823/17/1

### **9 DATE OF THE FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

24/08/2007

### **10 DATE OF REVISION OF THE TEXT**

None.