

DOTCAL-D

(Calcium Levulinate + Vitamin D₃ + Vitamin B₁₂ Injection High-Potency
Mult nutrient Injectable – Veterinary Use)

Description

This is a **sterile, multi-component injectable preparation** containing **Calcium Levulinate**, a highly bioavailable calcium salt; **Cholecalciferol (Vitamin D₃)**, essential for calcium metabolism and bone health; and **Vitamin B₁₂ (Cyanocobalamin)**, vital for haematopoiesis and neurological function. It is preserved with **Benzyl Alcohol IP 1.50%**, ensuring stability and sterility.

This combination is ideal for treating **calcium deficiencies, metabolic disorders, postpartum complications**, and **neuromuscular imbalances** in livestock and companion animals.

Specification

- **Appearance:** Clear, colourless to pale yellow sterile solution
- **pH:** 6.5 – 7.5
- **Sterility:** Complies with pharmacopeial standards
- **Shelf Life:** 24 months under standard storage conditions
- **Packaging:** Amber glass vials of 15 mL, 45 mL, or 100 mL

Composition (Per mL)

- **Calcium Levulinate:** 76.4 mg
- **Cholecalciferol (Vitamin D₃):** 5000 IU
- **Vitamin B₁₂ (Cyanocobalamin):** 50 mcg
- **Benzyl Alcohol IP:** 1.50% v/v (as preservative)
- **Water for Injection:** q.s.

Excipients

- Water for Injection
- Benzyl Alcohol (preservative)
- pH stabilizers (if needed)

Category

- Calcium supplement
- Vitamin D & B complex
- Electrolyte and metabolic corrector

Indications

- **Hypocalcaemia** (milk fever, parturient paresis)
- **Rickets, osteocalcin**, and bone-related disorders
- **Nutritional deficiencies** in growing, lactating, and pregnant animals
- **Postpartum complications** in dairy animals
- **General weakness, poor growth**, and **recovery support**
- **Neuritis, anaemia**, and **vitamin B₁₂-responsive neuropathies**

Dosage

Administer only as directed by a registered veterinarian.

General Guidelines:

- **Cattle, Buffaloes, Horses:** 50–100 mL IM or slow IV
- **Sheep, Goats:** 10–20 mL
- **Dogs:** 1–5 mL
- **Cats:** 0.5–2 mL
- **Frequency:** Once daily for 2–3 days or as needed

Slow IV administration is recommended under veterinary supervision to avoid adverse reactions.

Route of Administration

- Intramuscular (IM)
- Slow Intravenous (IV)

Product Form

- Sterile injectable solution
- Amber glass vials: 15 mL, 45 mL, 100 mL

Usage

Used across all **domestic animals** for prevention and treatment of **mineral deficiencies**, **postnatal recovery**, and **supportive therapy** during weakness or metabolic stress.

Advantages

- Combines **calcium**, **vitamin D₃**, and **B₁₂** in one injection
- Rapid bioavailability for **immediate correction** of deficiencies
- Effective for both treatment and prevention
- Useful in emergency and chronic deficiency states
- Enhances **bone density**, **nerve function**, and **metabolic efficiency**

Adverse Effects

- Local irritation or swelling at injection site
- Hypercalcemia if overdosed
- Rare allergic or hypersensitivity reactions
- Pain or inflammation on IV administration (if too rapid)

Schedule

- **Prescription veterinary drug (Rx)**
- To be used under veterinary supervision only

Precautions

- Administer IV **very slowly** to avoid cardiac effects
- Avoid in animals with **hypercalcemia** or **renal insufficiency**
- Use cautiously in pregnant animals
- Ensure **proper dosage calculation** based on species and condition
- Observe animal post-injection for any immediate reactions

Withdrawal Period

- **Meat:** 3 days
- **Milk:** 48 hours
(Subject to local regulatory requirements – always confirm with authorities)

Storage

- Store below **25°C**
- **Protect from light**
- Do not freeze
- Shake gently before use if precipitation occurs

Handling

- Use **sterile equipment**
- Do not use if vial appears cloudy or contaminated
- Discard partially used vials per veterinary waste disposal protocols

HS and HSN Codes

- **HS Code:** 30049091
- **HSN Code:** 3004 (Medicaments for therapeutic/prophylactic use, not put up in measured doses)

Special Instructions

- Do not mix with other injectable solutions unless compatibility is confirmed
- For optimal effect, ensure animal is hydrated and stable before IV administration
- Supplement diet with oral calcium and vitamins as per veterinary guidance

Human and Veterinary Application

- **Strictly for veterinary use only**
- Not intended or approved for human administration

Frequently Asked Questions (FAQs)

Q1: What is the main benefit of this injection?

It corrects calcium, vitamin D₃, and B₁₂ deficiencies, especially in postpartum or weak animals.

Q2: Can this injection be given during pregnancy?

Yes, but only under veterinary supervision, as high calcium doses may affect fetal development.

Q3: How fast does it work?

When given IV, it acts within 30–60 minutes for hypocalcaemia. IM may take a few hours.

Q4: Is this safe for small animals like dogs and cats?

Yes, at appropriately adjusted doses, under veterinary supervision.

Q5: What if there's swelling at the injection site?

Apply cold compresses. If severe or persistent, consult the vet.

Q6: Can this be given daily?

Only for short-term corrective therapy (2–3 days). Long-term supplementation should be oral unless prescribed otherwise.

Q7: Why is Benzyl Alcohol added?

It serves as a preservative to maintain the sterility and stability of the injectable solution.