1. NAME OF THE VETERINARY MEDICINAL PRODUCT

SynVet-50; 50 mg solution for injection for horses

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each 2.5 ml syringe contains:

Active substance:

Sodium hyaluronate	50 mg
(equivalent to hyaluronic acid	47 mg)

Excipients:

Qualitative composition of excipients and other constituents
Sodium chloride
Disodium phosphate dodecahydrate
Citric acid monohydrate
Water for injections

Clear, colourless, viscous solution.

3. CLINICAL INFORMATION

3.1 Target species

Horses.

3.2 Indications for use for each target species

For adjunctive intra-articular treatment of joint disease associated with non-infectious synovitis in horses.

3.3 Contraindications

Do not use in cases of joint infections.
Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

3.4 Special warnings

The treated horse should be box-rested for 2 days before gradually resuming a normal exercise pattern.

3.5 Special precautions for use

Special precautions for safe use in the target species:

Excess synovial fluid should be removed whenever possible prior to injection.
The injection should be administered under strict aseptic conditions through healthy undamaged skin.

Appropriate investigations should be carried out in cases of acute, severe lameness to ensure that the joints are free from fractures, OCD fragments and infections.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:

In case of accidental spillage onto skin, wash the affected area with soap and water.
In case of accidental contact with eyes, blurred vision may occur because of the viscous nature of the veterinary medicinal product. Rinse immediately with plenty of clean water.
In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician.
Wash hands after use.

Special precautions for the protection of the environment:

Not applicable.

3.6 Adverse events

Horses:

Common (1 to 10 animals / 100 animals treated):	Injection site joint reaction[1] (e.g. injection site swelling, injection site warmth)

[1] Mild and self-limiting, resolve spontaneously within 48 hours. However, since the early signs of septic arthritis may be similar, it is advised that a thorough clinical examination and monitoring are carried out if these clinical signs occur. Consideration should be given to appropriate further investigations.

Reporting adverse events is important. It allows continuous safety monitoring of a veterinary medicinal product. Reports should be sent, preferably via a veterinarian, to either the marketing authorisation holder or its local representative or the national competent authority via the national reporting system. See the package leaflet for respective contact details.

3.7 Use during pregnancy, lactation or lay

Pregnancy and lactation:

The safety of the veterinary medicinal product has not been established during pregnancy and lactation.
Use only according to the benefit-risk assessment by the responsible veterinarian.

3.8 Interaction with other medicinal products and other forms of interaction

No data available.

It is described that hyaluronic acid competes with other high molecular weight polysaccharides such as chondroitin sulphate for receptor binding and thus for uptake in the articular cartilage tissue.

3.9 Administration routes and dosage

Intra-articular use.

A single injection of 2.5 ml intra-articularly into medium sized and large joints. More than one joint may be treated at the same time.

A sterile dressing and clean bandage should be applied after injection, as appropriate for the particular joint treated.
Suggested needle size for intra-articular use: 20G 1,5inch needle (0.9 x 40mm).

If necessary, re-treatment of the joint can be considered at 2-3 weeks after the first-treatment.

Single dose syringes made ready for injection shall be used immediately; any unused portion of a syringe is to be discarded.

3.10 Symptoms of overdose (and where applicable, emergency procedures and antidotes)

Not applicable.

3.11 Special restrictions for use and special conditions for use, including restrictions on the use of antimicrobial and antiparasitic veterinary medicinal products in order to limit the risk of development of resistance.

For administration by a veterinarian or under their direct supervision.

3.12 Withdrawal periods

Meat and offal: zero days.
Milk: zero hours.

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code : QM09AX01

4.2 Pharmacodynamics

A bacterial fermentation process produces the active substance in the veterinary medicinal product. Sodium hyaluronate is extracted from the capsule of *Streptococcus spp*. and purified, resulting in a form which is free of protein, pyrogen and nucleic acids. Sodium hyaluronate is the sodium salt of hyaluronic acid, a non-sulphated acid, high-viscosity mucopolysaccharide or glycosaminoglycan of high molecular weight composed of equimolar amounts of D-glucuronic acid and N-acetylglucosamine linked by glycosidic bonds.

Hyaluronate is a physiological natural substance of connective tissues in all mammals and its chemical structure is the same in all species.
High concentrations of hyaluronate are especially found in the synovial fluid, the vitreous of the eye and the umbilical cord. Hyaluronic acid is also found in the articular cartilage matrix.

Apart from its physical and rheological properties, hyaluronic acid has anti-inflammatory, analgesic, lubricant and anti-oxidant activities. Its biochemical activities are distinct from its physical and rheological properties. It is an effective free radical scavenger, a potent inhibitor of leucocytes and macrophage migration and aggregation, and enhances healing of connective tissue.

Intra-articularly administered sodium hyaluronate alleviates aseptic joint inflammation and enhances joint lubrication. The mechanism of action of the active substance is not fully understood. The molecular weight of the active ingredient in the veterinary medicinal product, sodium hyaluronate, ranges from >1 million to 1.8 million Dalton.

4.3 Pharmacokinetics

Studies with radio labelled hyaluronic acid in rabbit and sheep indicate that hyaluronic acid is cleared from the joint within 4 to 5 days after intra-articular injection.

Elimination half-life from synovial fluid after intra-articular injection of any joint was highly variable, however the mean $t_{1/2}$, determined in only a few horses, was approximately 8-24 hours.
Intra-articular administered hyaluronic acid moved into and disappeared from the circulation at a first-order rate.
Uptake is primarily via the lymphatics. Hyaluronate is taken up and metabolized in liver endothelial cells, where it is broken down into C1 units of the carbon cycle before being re-utilised in the body.
The main metabolites are H_2O, CO_2, lactate, D-glucosamine-N-acetyl-D-glucosamine, low weight hyaluronic acid and monosaccharides.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products.

5.2 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 4 years.
Any solution remaining in the syringe following withdrawal of the required dose should be discarded.

5.3 Special precautions for storage

Do not store above 25 °C.
Store in the original package.
Store in a dry place.

5.4 Nature and composition of immediate packaging

Single-dose glass syringe barrel with luer tip and rigid tip cap. Type 1 glass syringe, lubricated with dimethicone.
Styrene-butadiene rubber cap.
Bromobutyl rubber plunger.

Available as single dose syringe in a sealed translucent plastic blister packed in one carton folding box.
Available as multipack with six single dose cartons aggregated and overwrapped with plastic foil and label.
Not all pack sizes may be marketed.

5.5 Special precautions for the disposal of unused veterinary medicinal products or waste materials derived from the use of such products

Medicines should not be disposed of via wastewater or household waste.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned.

6. NAME OF THE MARKETING AUTHORISATION HOLDER

Equi Pharma Ltd.

7. MARKETING AUTHORISATION NUMBER(S)

VPA22962/001/001

8. DATE OF FIRST AUTHORISATION

18/07/2014

9. DATE OF THE LAST REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS

22/05/2026

10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS

Veterinary medicinal product subject to prescription.

Detailed information on this veterinary medicinal product is available in the Union Product Database (https://medicines.health.europa.eu/veterinary).