


**Pr Adequan® I.A.** DIN 00670936  
 PSGAG 250 mg/mL  
 IA Inj. Sterile/Sterile  
 1 mL Single Dose Vial Flacon à dose unique  
 Dist. by: par: Distributor Name  
 Distributor Address  
 For: pour: AMERICAN REGENT, INC.  
 ANIMAL HEALTH 991-72C  
 Shirley, NY 11967 Rev. 8/19C



LOT  
 EXP

Label Size: 1.75" x 0.75" Part Number: VL991-72CRev8-19C Code: RSS (01) 103 10797991311

**Label**

**Please review this proof and clearly mark any modifications and corrections required.**

**Color Key**

Customer: American Regent, Inc.

- DieCut
- Pantone 348
- Black
- Datalase1
- Datalase2

**Please Check One:**  Proof Approved. Proceed with Order.  Change as Noted. New Proof Required.

Customer Sign Off \_\_\_\_\_

Date \_\_\_\_\_

Internal QC Approval: \_\_\_\_\_

Please Check a Rewind Direction



1  2  3  4

- Test adhesive substrate on container?  Yes  No
- Test label fit to container?  Yes  No
- Is the job sheeted?  Yes  No
- Is waste matrix stripped?  Yes  No
- Is perforation required?  Yes  No
- Is a backslit required?  Yes  No

- Is unvarnished area OK?  Yes  No
- Varnish type?  Gloss  Matte  Other
- Lamination type?  Gloss  Matte
- Are labels imprinted?  Yes  No
- Did you approve UPC position?  Yes  No
- Plastic core required?  Yes  No

**Matte coatings can be prone to scratching or scuffing. Gloss coatings are more durable. We will gladly supply samples of a specified coating for your testing.**

**Please refer to a Pantone Swatch Guide for accurate color match.** This color will not match your final printed piece.

This **MatchPrint Proof** will be used at press to match any CMYK process artwork to the final printed piece.

**This Proof may show the Trapping of colors.** Trapping is the overlapping of colors where objects meet.

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Proof by: **Gintzler International**, A Resource Label Group Co. / 100 Lawrence Bell Drive, Buffalo, NY 14221

Chaque flacon contient 250 mg de polysulfate de glycosaminoglycan (PSGAG) dans l'eau pour préparations injectables.

**INDICATIONS:**  
Pour le traitement des dysfonctionnements traumatiques et/ou dégénératifs, non infectieux, des articulations, et autres boiteries associées chez le cheval.

Voir le dépliant interne pour de plus amples informations. Entreposer à une température contrôlée de 18 -25 °C (64 -77 °F). Flacon unidose: Jeter la portion non-utilisée.

DIN 00670936  
**Pr Adequan® I.A.**  
**Injection stérile de PSGAG 250 mg/mL**



Distribué par:  
Nom du distributeur  
Adresse du distributeur

**POUR USAGE VÉTÉRINAIRE SEULEMENT**  
**POUR ADMINISTRATION**  
**INTRA-ARTICULAIRE**

Contient 6 Flacons (1 mL chacun)

FLACON UNIDOSE

**MISES EN GARDE:** Cette drogue ne doit pas être administrée aux chevaux devant être abattus à des fins alimentaires. Garder hors de la portée des enfants.

**PRECAUTIONS:** Ne pas utiliser chez les animaux de reproduction; les effets sur la fertilité et les fonctions reproductrices n'ayant pas été étudiés chez la jument et l'étalon.

\*Marque déposée de/registered trademark of American Regent, Inc.

COATING  
FREE AREA



**FOR VETERINARY USE ONLY**  
**FOR INTRA-ARTICULAR**  
**ADMINISTRATION**  
contains 6 Vials (1 mL each)  
**SINGLE DOSE VIALS**  
**WARNINGS:** This drug is not to be administered to horses that are to be slaughtered for use in food. Keep out of the reach of children.  
**CAUTION:** Not intended for use in breeding animals as effects on fertility and reproductive function in mares and stallions have not been studied.  
AMERICAN REGENT, INC.  
ANIMAL HEALTH  
Shirley, NY 11967  
(1-800-459-0163)



Distributed by  
Distributor Name  
Distributor Address

Each vial contains 250 mg Polysulfated Glycosaminoglycan (PSGAG) in Water for Injection.  
**INDICATIONS:** For the treatment of non-infectious degenerative and traumatic joint dysfunction and associated lameness in horses.  
See package insert for full directions. Store at controlled room temperature (18-25 °C (64-77 °F)). Single dose vial - Discard unused portion.  
Rev. 8/19C

COATING  
FREE AREA

DIN 00670936  
**Pr Adequan® I.A.**  
**PSGAG Sterile Injection 250 mg/mL**



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**job information**

**Customer:** AMERICAN REGENT, INC.  
**Customer #:** XXXXX  
**Item:** AmericanReg\_AdqIa\_Canada\_250mgmL\_Carton AT  
**Epp #:** 124756 AT  
**Cad# / Size:** 2.6875 x 0.6562 x 4.3125"

**ink colors and finishes**

- DIELINE
- COATING FREE
- CMYK
- ICS 342
- PMS 1797

**history**

**Version#**  
**Printed** XXXXXX  
**Rev-1:** 8-6-2019  
**Rev-2:** 8-8-2019  
**Rev-3:**  
**Rev-4:**  
**Rev-5:**  
**Rev-6:**  
**Rev-7:**  
**Rev-8:**  
**Rev-9:**  
**Rev-10:**  
**Rev-11:**  
**Rev-12:**

**proof reading**

QC: \_\_\_\_\_ date: \_\_\_\_\_

**client approvals**

**THIS PROOF MUST BE SIGNED AND RETURNED**

Job will not be released for production unless signed off by client

approval: \_\_\_\_\_

approval: \_\_\_\_\_

date: \_\_\_\_\_

Approved

With Corrections



Pr

# Adequan® I.A.

DIN 00670936

## Polysulfated Glycosaminoglycan Injection 250 mg/mL



**FOR VETERINARY USE ONLY  
FOR INTRA-ARTICULAR USE IN HORSES**

**Description:** Each mL of Adequan contains 250 mg of Polysulfated Glycosaminoglycan (PSGAG) in Water for Injection; sodium hydroxide and/or hydrochloric acid added as necessary to adjust pH.

**Pharmacology:** Polysulfated Glycosaminoglycan is chemically similar to the mucopolysaccharides of cartilaginous tissue. It is a potent proteolytic enzyme inhibitor and diminishes or reverses the processes which result in the loss of cartilaginous mucopolysaccharides. PSGAG improves joint function by stimulating synovial membrane activity, reducing synovial protein levels and increasing synovial fluid viscosity in traumatized equine joints.

**Toxicity:** Toxicity studies were conducted in horses. Doses as high as 1250 mg were administered intracarpally to 6 horses once a week for 18 weeks. This dosage is 5 times the recommended dosage and 3.6 times the maximum recommended therapeutic regimen. Clinical observations revealed a soreness and swelling in 1.8% of the animals (2/109 animals) at the injection site which was mild, self-limiting and lasted less than one day. No animal had any clinical illness during the trial and none showed clinical evidence of toxicity except for transient swelling at the injection site, possibly due to mechanical invasion of the joint.

**Indication:** Adequan is recommended for the treatment of non-infectious degenerative and/or traumatic joint dysfunction and associated lameness in horses.

**Contraindications:** Do not use in horses showing hypersensitivity to PSGAG.

**Warnings:** This drug is not to be administered to horses that are to be slaughtered for use in food. Keep out of the reach of children.

**Dosage and Administration:** The recommended dose of Adequan in horses is 250 mg once a week for up to five weeks, intra-articularly. The joint area must be shaved, cleansed and sterilized as in a surgical procedure prior to injection. Do not mix Adequan with other drugs and do not exceed the recommended dose, frequency and duration of treatment.

**Adverse Reactions:** The rate of adverse reactions based on the first four years of sales experience in the United States is 0.02%. Adverse reactions fall into two distinct categories with equal incidence: joint inflammation and septic arthritis. Post-injection inflammation or "joint flare" may result from sensitivity to Adequan; traumatic injection technique; exceeding the recommended dose, frequency, and number of Adequan injections; and combining Adequan with other drugs. Joint inflammations are characterized by rapid onset (8-48 hrs after injection) and tenderness, swelling and warmth over the injected joint. Inflammatory joint reactions are successfully treated by systemic anti-inflammatories, cold water therapy and rest.

Joint sepsis is a rare but potentially life-threatening complication of intra-articular injection. It usually results from the deposition of skin organisms into the joint space by the needle tip. Gustafson et al (1989) have demonstrated that Adequan may potentiate a subinfective dose of contaminant bacteria. Hence, strict aseptic technique is of utmost importance.

Successful resolution of joint sepsis depends on prompt recognition and rigorous antimicrobial treatment. Early diagnosis of septic arthritis may be complicated by the similar appearance of joint inflammation. Excessive inflammation accompanied by lameness, and swelling and edema extending beyond the joint limits, should alert the practitioner to the possibility of sepsis. Synovial fluid analysis and culture are valuable diagnostic aids, but upon suspicion of joint sepsis broad-spectrum antimicrobial therapy should be instituted without delay.

Veterinarians are referred to the following references for a comprehensive review of septic arthritis and its treatment.

1. Bertone, AL; McIlwraith, CW, et al: Comparison of various treatments for experimentally induced equine infectious arthritis. *Am. J. Vet. Res.* (48): 519, 1987.
2. Gustafson, SB; McIlwraith, CW, et al: Comparison of the effect of polysulfated glycosaminoglycan, corticosteroids and sodium hyaluronate in the potentiation of a subinfective dose of *Staphylococcus aureus* in the midcarpal joint of horses. *Am. J. Vet. Res.* (50): 2014-2017, 1989.
3. Gustafson, SB; McIlwraith, CW, et al: Further investigations into the potentiation of infection by intra-articular injection of polysulfated glycosaminoglycan and the effect of filtration and intra-articular injection of amikacin in horses. *Am. J. Vet. Res.* (50): 2018-2022, 1989.
4. Hawkins, DL: Bacterial arthritis in Roundtable on Sodium Hyaluronate Therapy in the horse, Riviera Beach, FL. Mar. 1985, *J. Eq. Vet. Sci.* (5): 231, 1985.
5. Koch, DB: Management of infectious arthritis in the horse. *Comp. Cont. Educ.* (1): 546, 1979.
6. McIlwraith, CW: Treatment of infectious arthritis. *Vet. Clin. N. Am., Lg. Anim. Pract.* (5): 363, 1983.
7. Morris, PG: The clinical management of septic arthritis in the horse. *Comp. Cont. Educ.* (2): 5207, 1980.
8. Von Essen, R. and Holttta, A: Improved method of isolating bacteria from joint fluids by the use of blood culture bottles. *Ann. Rheum. Dis.* (45): 454, 1986.

**Precautions:** The concomitant use of Adequan with steroidal and/or non-steroidal anti-inflammatory agents may mask the symptoms of joint sepsis, thereby delaying the diagnosis and reducing the likelihood of satisfactory resolution. Joint injections should not be performed when the overlying skin is scurfed or blistered, as this precludes adherence to aseptic technique.

**Caution:** Not intended for use in breeding animals as effects on fertility and reproductive function in mares and stallions have not been studied.

**How Supplied:** Adequan® I.A., PSGAG 250 mg/mL, is available in 1 mL single dose vials packaged in boxes of 6.

**Storage Conditions:** Store at controlled room temperature 18-25°C (64-77°F). Discard unused portion.

MFG. BY: AMERICAN REGENT, INC.  
ANIMAL HEALTH  
Shirley, N.Y. 11967  
(1-800-458-0163)

IN99171C  
Rev. 8/19C  
MG #46017

DISTR. BY: **Distributor Name**  
**Distributor Address**  
**City, Province, Postal Code**

**Pr****Adequan® I.A.**

DIN 00670936

Injection de Polysulfate de Glycosaminoglycan  
250 mg/mL**POUR USAGE VETERINAIRE SEULEMENT  
POUR INJECTION INTRA-ARTICULAIRE CHEZ LE CHEVAL**

**Description:** Chaque mL d'Adequan contient 250 mg de polysulfate de glycosaminoglycan (PSGAG) dans l'eau pour préparations injectables. Si nécessaire, le pH est ajusté avec de l'hydroxyde de sodium et/ou de l'acide chlorhydrique.

**Pharmacologie:** Le polysulfate de glycosaminoglycan est chimiquement similaire aux mucopolysaccharides du tissu cartilagineux. Il est un puissant inhibiteur de la protéolyse enzymatique et diminue ou renverse le processus résultant en la perte des mucopolysaccharides cartilagineux. Le PSGAG améliore la fonction articulaire en stimulant l'activité de la membrane synoviale, en réduisant le niveau des protéines synoviales et en augmentant la viscosité du liquide synovial dans les articulations traumatisées du cheval.

**Toxicité:** On a fait des études de toxicité chez les chevaux. Des doses aussi grandes que 1250 mg furent injectées dans l'articulation carpale de 6 chevaux une fois par semaine pendant 18 semaines. Ce dosage est 5 fois la dose recommandée et 3.6 fois la durée de traitement recommandée. Dans 1.8% des cas (2/109), on a observé de la douleur et de l'enflure au site d'injection. Ces effets étaient légers, limités et duraient moins d'une journée. Aucun animal n'a montré de signes cliniques de maladies ou de toxicité durant l'étude, autre qu'une enflure transitoire au site d'injection, probablement due à l'invasion mécanique de l'articulation.

**Indications:** Adequan est recommandé pour le traitement des dysfonctionnements traumatiques et/ou dégénératifs, non infectieux, des articulations, et autres boiteries associées chez le cheval.

**Contre-indications:** Ne pas utiliser chez les chevaux hypersensibles au PSGAG.

**Mises en garde:** Cette drogue ne doit pas être administrée aux chevaux devant être abattus à des fins alimentaires. Garder hors de la portée des enfants.

**Dosage et administration:** Le dosage recommandé d'Adequan chez le cheval est de 250 mg par voie intra-articulaire, une fois par semaine, jusqu'à 5 semaines. Avant l'injection l'articulation doit être rasée, nettoyée et stérilisée comme pour une procédure chirurgicale. Ne pas mélanger l'Adequan avec d'autres drogues et ne pas dépasser la dose, la fréquence et la durée du traitement.

**Réactions adverses:** Basé sur les quatre premières années de vente aux E.U., le taux de réactions adverses est de 0.02%. Les réactions adverses sont classées dans deux catégories distinctes: inflammation articulaire et arthrite septique. L'inflammation post-injection peut être due à une hypersensibilité à l'Adequan, au traumatisme mécanique de l'injection, à un dépassement de la dose, de la fréquence ou du nombre d'injections d'Adequan ou à la combinaison d'Adequan avec d'autres drogues. Les inflammations articulaires sont caractérisées par un début rapide (8 à 48 hres après l'injection), de la sensibilité, de l'enflure et de la chaleur au site d'injection. Les réactions inflammatoires articulaires se soignent avec succès à l'aide d'anti-inflammatoires systémiques, une thérapie à l'eau froide et du repos.

L'infection articulaire est rare, mais lors d'une injection intra-articulaire, celle-ci peut être une complication mettant la vie de l'animal en danger. Cette infection survient généralement par l'introduction, dans l'articulation, d'un organisme de la peau par le bout de l'aiguille. Gustafson et al (1989) ont démontré qu'Adequan peut potentialiser une dose sous-infectieuse d'une bactérie contaminante. Par conséquence, une technique aseptique est de très grande importance.

Une résolution réussie d'une infection articulaire dépend d'un diagnostic rapide et d'un traitement rigoureux aux antimicrobiens. Un diagnostic précoce de l'arthrite septique peut être compliqué par l'apparence similaire de l'inflammation articulaire. Une inflammation excessive accompagnée de boiterie, d'enflure et d'oédème s'étendant hors des limites de l'articulation devrait alerter le praticien de la possibilité d'une infection. L'analyse et une culture du liquide synovial sont des outils de diagnostic valables, mais on devrait instituer rapidement un traitement par antibiotiques à large spectre au moindre soupçon d'une infection intra-articulaire.

**Précautions:** L'usage concomitant de l'Adequan avec des agents anti-inflammatoires stéroïdiens ou non-stéroïdiens peut masquer les symptômes d'une infection intra-articulaire, retardant le diagnostic et réduisant les chances d'une résolution satisfaisante de l'infection. On ne devrait jamais faire d'injection intra-articulaire lorsque la peau est pelliculeuse ou vésiculaire car ceci nuit aux techniques aseptiques.

Ne pas utiliser chez les animaux de reproduction; les effets sur la fertilité et les fonctions reproductrices n'ayant pas été étudiés chez la jument et l'étalon.

**Présentation:** Adequan® I.A., PSGAG 250 mg/mL, est disponible en flacons à dose unique de 1 mL vendu en boîtes de 6.

**Conditions d'entreposage:** Entreposer à une température contrôlée de 18-25 °C (64-77 °F). Jeter la portion non-utilisée.

FABRIQUÉ PAR: **AMERICAN REGENT, INC.**  
SANTÉ ANIMALE  
Shirley, N.Y. 11967  
(1-800-458-0163)

DISTRIBUÉ PAR: **Nom du distributeur**  
**Adresse du distributeur**  
**ville, province, code postal**