New packaging design

The new Ostenil presentation may not yet be available in your country.
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Ostenil® Line, Designed for long-term relief in OA

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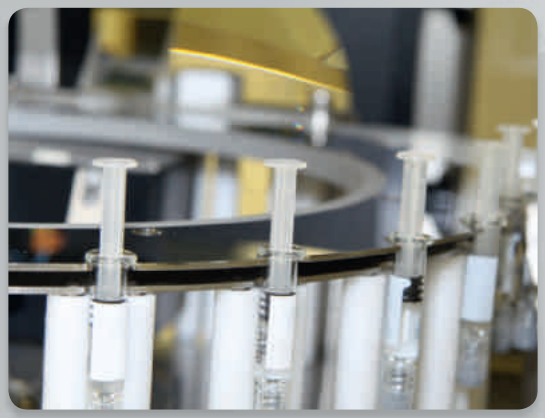
OSTENIL®
OSTENIL® PLUS
OSTENIL® MINI
Ostenil® Line
Decrease Joint Pain
Improve Joint Function
TRB CHEMEDICA

TRB CHEMEDICA

A Swiss pharmaceutical company with more than 25 years experience in hyaluronic acid-based products.

In-house ISO certified manufacturing facilities of sterile injectables in Vouvry, Switzerland.

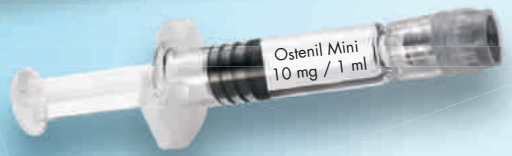


Over 1 million pre-filled syringes produced every year for intra-articular injections with Swiss quality and unique know-how.

OSTENIL® pre-filled syringes contain highly purified sodium hyaluronate obtained by fermentation.

Restoring synovial balance in small joints

- HA obtained from bacterial fermentation
- HA 1% (10 mg/1 ml)
- Molecular weight: 1-2 million Daltons
- 1 ml pre-filled syringe
- Terminal sterilisation for optimal safety: the content and the outer surface of the syringe are sterile.



- Cycle of 1-3 injections into small joints such as those in the hand, foot, facet joints and the temporomandibular joint.
- OSTENIL® mini improves joint mobility and pain-free activity in the treatment of hallux rigidus. [1]
- A single injection of OSTENIL® mini is as effective as an injection of steroid in patients with rhizarthrosis. [2]
- In temporomandibular joint disorders, an injection of OSTENIL® mini reduces pain and improves joint function. [3]

[1] *Pons M et al. Foot Ankle Int 2007;28(1):38-42*
[2] *Tourret LJ et al. Presented at the 10th World Congress on Osteoarthritis. December 8-11, 2005; poster P157.*
[3] *Oliveras-Moreno JM et al. J Oral Maxillofac Surg 2008;66:2243-46*

OSTENIL® MINI

Designed for long-term relief in OA

- HA obtained from bacterial fermentation
- HA 1% (20 mg/2 ml)
- Molecular weight: 1-2 million Daltons
- 2 ml pre-filled syringe
- Terminal sterilisation for optimal safety: the content and the outer surface of the syringe are sterile.

- Treatment cycle of 3-5 weekly injections into large joints.
- OSTENIL® provides long-lasting pain relief and improves function in knee OA patients with excellent tolerability. [4]
- In patients suffering from hip OA, a treatment cycle of 3 weekly injections of OSTENIL® is effective to reduce pain over 12 months compared to lidocaïne. [5]
- Among patients with advanced OA of the shoulder who either refused or were considered medically unfit for shoulder replacement surgery, OSTENIL® was associated with reduced pain and improved function. [6]

[4] *Möller I et al. Presented at the 6th World Conference of the Osteoarthritis Research Society International 2001; poster PB22*
[5] *Tsvetkova E et al. Ann Rheum Dis 2010;69(Suppl3):281*
[6] *Funk L et al. Presented at the 9th World Conference of the Osteoarthritis Research Society International 2004; poster P338*

OSTENIL®

Flexible treatment scheme with high dose HA 2%

- HA obtained from bacterial fermentation
- HA 2% (40 mg/2 ml)
- Molecular weight: 1-2 million Daltons
- Mannitol 0.5% (10 mg/2 ml)
- 2 ml pre-filled syringe
- Terminal sterilisation for optimal safety: the content and the outer surface of the syringe are sterile.

- Mannitol-stabilised HA. Mannitol acts as a free radical scavenger which protects HA from rapid depolymerisation. [7]
- The formulation offers the possibility of increasing the intervals between injections. [8]
- Sustained efficacy with reduced number of injections [8]
- One injection of OSTENIL® Plus reduces pain and improves function in knee OA over 6 months. [9]

[7] *Mendoza G et al. Carbohydr Res 2007; 342: 96-102*
[8] *Data on file*
[9] *Borràs Verdera A et al. Poster presented at the XXV triennial world congress of the International Society of Orthopedic and Traumatology. September 6-9, 2011.*

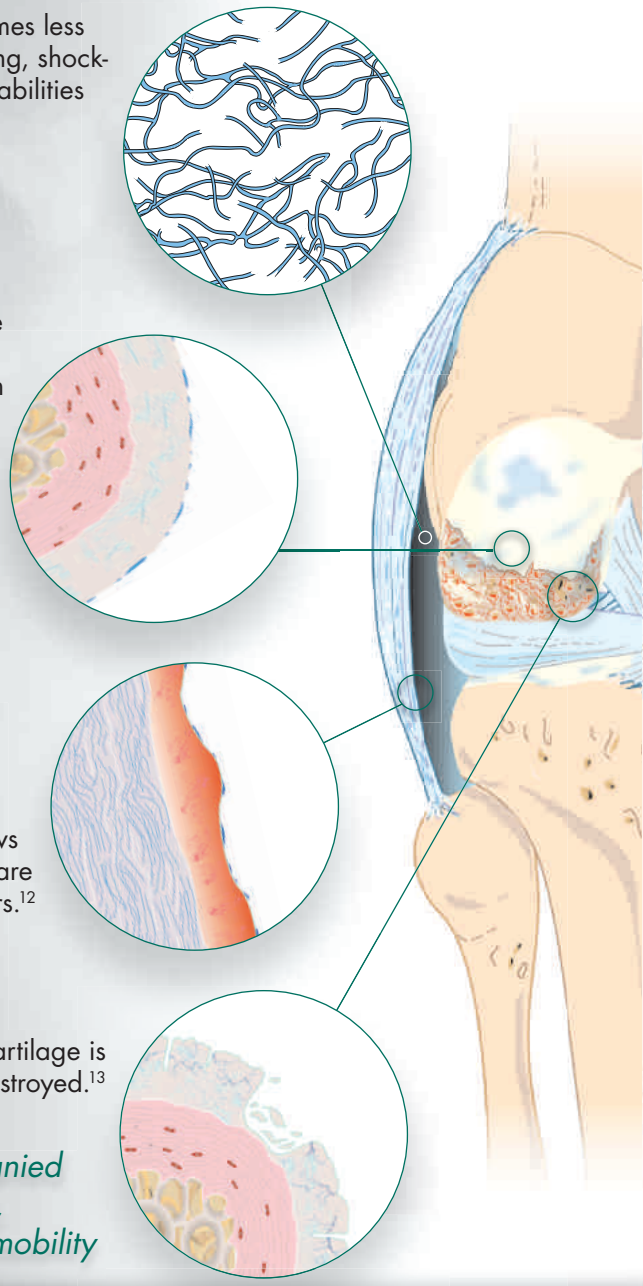
The healthy synovial joint is in a state of balance or homeostasis. The hyaluronan in the joint space is continuously replaced, but its concentration and molecular weight profile remain constant. In osteoarthritis, homeostasis is lost and the hyaluronan in the joint space becomes depolymerised and fragmented.[10]

The synovial fluid becomes less viscous and its lubricating, shock-absorbing and filtering abilities are reduced.[11]

The coating of hyaluronan over the surface of the joint breaks down, leaving the cartilage and synovium exposed to mechanical and inflammatory damage.[12]

Loss of homeostasis in the osteoarthritic joint

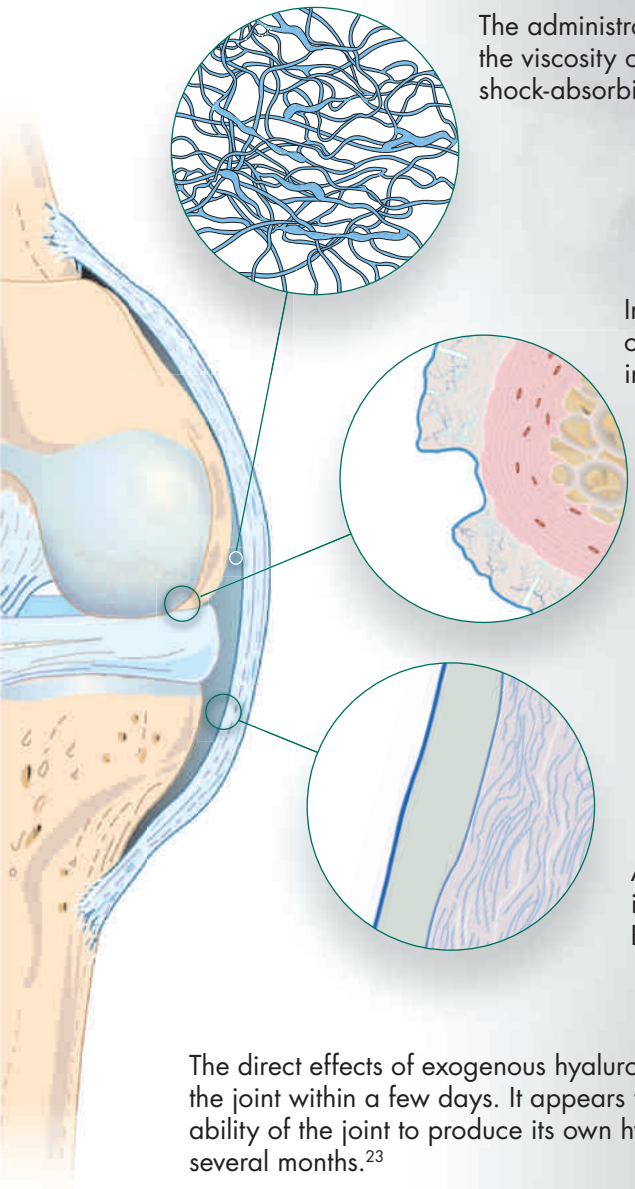
The synovium becomes inflamed. As a result, it grows more permeable to inflammatory molecules, which are therefore able to enter the joint in increased numbers.[12]



The articular cartilage is gradually destroyed.[13]

Osteoarthritis is accompanied by symptoms of pain, inflammation and reduced mobility

[10] *Mensitieri M et al. J Mat Sci Mat Med 1995;6:130-7.*
[11] *Balazs EA, Denlinger JL. J. Rheumatol 1993;20(Suppl 39):3-9.*
[12] *Pelletier JP, Martel-Pelletier J. J Rheumatol 1993;20(Suppl 39):19-24.*
[13] *Abatangelo G et al. Clin Orthop 1989;241:278-85.*
[14] *Peyron JG. Osteoarthritis Cartilage, 1993;1:85-7.*
[15] *Abatangelo G et al. Eur J Cell Biol 1998;49(Suppl 28):18.*
[16] *Kvam BJ et al. Exp Cell Res 1995;218:79-86.*
[17] *Presti D, Scott JE. Cell Biochem Funct 1994; 12:281-8.*
[18] *Frizziero L et al. Clin Exp Rheumatol 1998;16:441-9.*
[19] *Partsch G et al. Z Rheumatol 1989;48:123-8.*
[20] *Karatay S et al. Ann Clin Lab Sci 2004;34:330-5.*
[21] *Gotoh S et al. Ann Rheum Dis 1993;52:817-22.*
[22] *Miyazaki K et al. Pharmacometrics 1984;28:1123-35.*
[23] *Smith MM, Ghosh P. Rheumatol Int 1987;7:113-22.*
[24] *Homandberg GA et al. Osteoarthritis Cartilage 1997;5:309-19.*
[25] *Jubb RW et al. Ann Rheum Dis 2001; 60(Suppl 1):46.*
[26] *Listrat V et al. Osteoarthritis Cartilage 1997;5:153-60.*
[27] *Yasui T et al. Biomed Res 1992;13:343-8.*



The administration of exogenous hyaluronan increases the viscosity of the synovial fluid, restoring its lubricating, shock-absorbing and filtering properties.[10,14]

In addition, it re-establishes the protective coating of hyaluronan over the inner surface of the joint and increases the scavenging of free radicals.[15,16,17]

Exogenous hyaluronan restores synovial balance

As a result of these changes, hyaluronan reduces inflammation of the synovium.[18-20]
By masking the nociceptors, pain is also alleviated.[11,21,22]

The direct effects of exogenous hyaluronan cannot account for its long-term benefits, as it is cleared from the joint within a few days. It appears that, through its direct effects, exogenous hyaluronan restores the ability of the joint to produce its own hyaluronan and thus returns it to a state of homeostasis that persists for several months.[23]

Evidence exists suggesting that exogenous hyaluronan may slow the destruction of cartilage [24-27]

GB

OSTENIL® MINI

Viscoelastic solution for injection into small joints

INSTRUCTIONS FOR USE

OSTENIL® MINI

Sodium hyaluronate from fermentation 1.0 %. Viscoelastic solution for injection into small joints. Sterile by moist heat.

Composition:

1 ml isotonic solution contains 10.0 mg sodium hyaluronate and sodium chloride, disodium phosphate, sodium dihydrogen phosphate, water for injections.

Indications:

Pain and restricted mobility in degenerative and traumatic changes of small synovial joints, for example, the facet joints of the lumbar spine, the saddle joint of the thumb, the interphalangeal joints of the fingers and toes, the proximal joint of the big toe and the temporomandibular joint. In the treatment of larger joints, for example the knee, hip or shoulder, OSTENIL® pre-filled syringes of 20 mg/2.0 ml should be used.

Contra-indications:

OSTENIL® MINI should not be used in patients with ascertained hypersensitivity to any of its constituents.

Interactions:

No information on the incompatibility of OSTENIL® MINI with other solutions for intraarticular use is available to date. The concomitant use of an oral analgesic or anti-inflammatory drug during the first few days of treatment may be helpful for the patient.

Undesirable effects:

Local secondary phenomena such as pain, feeling of heat, redness and swelling/joint effusion may occur in the joint treated with OSTENIL® MINI. Application of an ice pack onto the treated joint for five to ten minutes will reduce the incidence of these events.

Dosage and administration:

Inject OSTENIL® MINI into the affected joint once a week for a total of 1–3 injections. Several joints may be treated at the same time. Depending on the severity of the joint disease the beneficial effects of a treatment cycle may last at least six months. Repeat treatment cycles may be administered as required. In case of joint effusion it is advisable to reduce the effusion by aspiration, rest, application of an ice pack and/or intraarticular corticosteroid injection. Treatment with OSTENIL® MINI can be started two to three days later.

The contents and outer surface of the OSTENIL® MINI pre-filled syringe are sterile as long as the sterile pack is intact. Take the pre-filled syringe out of the sterile pack, unscrew the Luer lock cap from the syringe, attach a suitable needle (for example 19 to 25 G) and secure it by turning slightly. Remove any air bubble, if present, before injection.

Precautions:

Caution should be exercised in patients with known hypersensitivity to drugs. The general precautions for intraarticular injections should be observed, including measures to avoid joint infections. OSTENIL® MINI should be injected accurately into the joint cavity, if necessary under imaging control. Avoid injections into blood vessels or surrounding tissues! As no clinical evidence is available on the use of hyaluronic acid in children, pregnant and lactating women or in inflammatory joint diseases such as rheumatoid arthritis or Bechterew disease, treatment with OSTENIL® MINI is not recommended in these cases. Do not use if the pre-filled syringe or sterile pack are damaged. Any solution not used immediately after opening must be discarded. Otherwise the sterility is no longer guaranteed. Store between 2 °C and 25 °C! Do not use after the expiry date indicated on the box. Keep out of the reach of children.

Characteristics and mode of action:

Synovial fluid, which is viscoelastic due to the presence of hyaluronic acid, is found in all synovial joints where it ensures normal, painless movement due to its lubricating and shock-absorbing properties. It is also responsible for the nutrition of the cartilage. In degenerative joint disorders such as osteoarthritis, the viscoelasticity of the synovial fluid is markedly reduced thereby decreasing its lubricating and shock-absorbing functions. This increases mechanical loading of the joint and cartilage destruction which ultimately results in pain and restricted mobility of the affected joint. Supplementing this synovial fluid with intraarticular injections of highly purified hyaluronic acid can ameliorate the viscoelastic properties of synovial fluid. This improves its lubricating and shock-absorbing functions and reduces mechanical overload of the joint. As a rule this results in a decrease in pain and an improvement in joint mobility which may last for several months after a treatment cycle.

Presentation:

One pre-filled syringe of 10 mg/1.0 ml OSTENIL® MINI in a sterile pack.

OSTENIL® MINI is a medical device. To be used by a physician only.
Last revision date: March 2011

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OSTENIL®

Viscoelastic solution for injection into the joint cavity

INSTRUCTIONS FOR USE

OSTENIL®

Sodium hyaluronate from fermentation 1.0 %. Viscoelastic solution for injection into the joint cavity. Sterile by moist heat.

Composition:

1 ml isotonic solution contains 10.0 mg sodium hyaluronate and sodium chloride, disodium phosphate, sodium dihydrogen phosphate, water for injections.

Indications:

Pain and restricted mobility in degenerative and traumatic changes of the knee joint and other synovial joints.

Contra-indications:

OSTENIL® should not be used in patients with ascertained hypersensitivity to one of the constituents.

Interactions:

No information on the incompatibility of OSTENIL® with other solutions for intra-articular use is available to date. The concomitant use of an oral analgesic or anti-inflammatory drug during the first few days of treatment may be helpful for the patient.

Side effects:

Local secondary phenomena such as pain, feeling of heat, redness and swelling may occur in the joint treated with OSTENIL®. Application of an ice pack for five to ten minutes onto the treated joint will reduce the incidence of these events.

Directions for use:

Inject OSTENIL® into the affected joint once a week for a total of 3–5 injections. Several joints may be treated at the same time. Depending on the severity of the joint disease the beneficial effects of a treatment cycle of five intra-articular injections will last at least six months. Repeat treatment cycles may be administered as required. In case of joint effusion it is advisable to reduce the effusion by aspiration, rest, application of an ice pack and/or intra-articular corticosteroid injection. Treatment with OSTENIL® can be started two to three days later.

The content and the outer surface of the OSTENIL® pre-filled syringe are sterile as long as the sterile pack is intact. Take the pre-filled syringe out of the sterile pack, unscrew the Luer lock cap from the syringe, attach a suitable needle (for example 19 to 21 G) and secure it by turning slightly. Remove any air bubble, if present, before injection.

Precautions:

Caution should be exercised in patients with known hypersensitivity to drugs. The general precautions for intra-articular injections should be observed, including measures to avoid joint infections. OSTENIL® should be injected accurately into the joint cavity, if necessary under imaging control. Avoid injections into blood vessels or surrounding tissues! As no clinical evidence is available on the use of hyaluronic acid in children, pregnant and lactating women or in inflammatory joint diseases such as rheumatoid arthritis or Bechterew disease, treatment with OSTENIL® is not recommended in these cases. Do not use if the pre-filled syringe or sterile pack are damaged. Any solution not used immediately after opening must be discarded. Otherwise the sterility is no longer guaranteed. Store between 2 °C and 25 °C! Do not use after the expiry date indicated on the box. Keep out of the reach of children.

Characteristics and mode of action:

Synovial fluid, which is viscoelastic due to the presence of hyaluronic acid, is found in all synovial joints, particularly the large weight bearing joints, where it ensures normal, painless movement due to its lubricating and shock-absorbing properties. It is also responsible for the nutrition of the cartilage. In degenerative joint disorders such as osteoarthritis, the viscoelasticity of the synovial fluid is markedly reduced thereby decreasing its lubricating and shock-absorbing functions. This increases mechanical loading of the joint and cartilage destruction which ultimately results in pain and restricted mobility of the affected joint. Supplementing this synovial fluid with intra-articular injections of highly purified hyaluronic acid can ameliorate the viscoelastic properties of synovial fluid. This improves its lubricating and shock-absorbing functions and reduces mechanical overload of the joint. As a rule this results in a decrease in pain and an improvement in joint mobility which may last for several months after a treatment cycle of five intra-articular injections.

Presentation:

One pre-filled syringe of 20 mg/2.0 ml OSTENIL® in a sterile pack.
Three pre-filled syringes of 20 mg/2.0 ml OSTENIL® in sterile packs.
Five pre-filled syringes of 20 mg/2.0 ml OSTENIL® in sterile packs.

OSTENIL® is a medical device. To be used by a physician only.
Last revision date: October 2010

GB

OSTENIL® PLUS

Viscoelastic solution for injection into the joint cavity

INSTRUCTIONS FOR USE

OSTENIL® Plus
Sodium hyaluronate from fermentation 2.0%. Viscoelastic solution for injection into the joint cavity. Sterile by moist heat.

Composition:
1 ml isotonic solution (pH 7.3) contains 20.0 mg sodium hyaluronate from fermentation and sodium chloride, disodium phosphate, sodium dihydrogenphosphate, mannitol and water for injections.

Indications:
Pain and restricted mobility in degenerative and traumatic changes of the knee joint and other synovial joints.

Contra-indications:
OSTENIL® Plus should not be used in patients with ascertained hypersensitivity to one of the constituents.

Interactions:
No information on the incompatibility of OSTENIL® Plus with other solutions for intra-articular use is available to date. The concomitant use of an oral analgesic or anti-inflammatory drug during the first few days of treatment may be helpful for the patient.

Side effects:
Local secondary phenomena such as pain, sensation of heat, redness and swelling may occur in the joint treated with OSTENIL® Plus. Application of an ice pack for five to ten minutes onto the treated joint will reduce the incidence of these events.

Directions for use:
Inject OSTENIL® Plus into the affected joint once a week for a total of 1–3 injections. Several joints may be treated at the same time. Repeat treatment cycles may be administered as required. In case of joint effusion it is advisable to reduce the effusion by aspiration, rest, application of an ice pack and/or intra-articular corticosteroid injection. Treatment with OSTENIL® Plus can be started two to three days later.
The content and the outer surface of the OSTENIL® Plus pre-filled syringe are sterile as long as the sterile pack is intact. Take the pre-filled syringe out of the sterile pack, unscrew the Luer lock cap from the syringe, attach a suitable needle (for example 18 to 25 G) and secure it by turning slightly. Remove any air bubble, if present, before injection.

Precautions:
Caution should be exercised in patients with known hypersensitivity to drugs. The general precautions for intra-articular injections should be observed, including measures to avoid joint infections. OSTENIL® Plus should be injected accurately into the joint cavity, if necessary under imaging control. Avoid injections into blood vessels or surrounding tissues! As no clinical evidence is available on the use of hyaluronic acid in children, pregnant and lactating women or in inflammatory joint diseases such as rheumatoid arthritis or Bechterew disease, treatment with OSTENIL® Plus is not recommended in these cases. Do not use if the pre-filled syringe or sterile pack are damaged. Any solution not used immediately after opening must be discarded. Otherwise the sterility is no longer guaranteed. Store between 2 °C and 25 °C! Do not use after the expiry date indicated on the box. Keep out of the reach of children!

Characteristics and mode of action:
Synovial fluid, which is viscoelastic due to the presence of hyaluronic acid, is found in all synovial joints, particularly the large weight bearing joints, where it ensures normal, painless movement due to its lubricating and shock-absorbing properties. It is also responsible for the nutrition of the cartilage. In degenerative joint disorders such as osteoarthritis, the viscoelasticity of the synovial fluid is markedly reduced thereby decreasing its lubricating and shock-absorbing functions. This increases mechanical loading of the joint and cartilage destruction which ultimately results in pain and restricted mobility of the affected joint. Supplementing this synovial fluid with intra-articular injections of highly purified hyaluronic acid can ameliorate the viscoelastic properties of synovial fluid. This improves its lubricating and shock-absorbing functions and reduces mechanical overload of the joint. As a rule this results in a decrease in pain and an improvement in joint mobility which may last for several months after a treatment cycle.
OSTENIL® Plus is a transparent solution of natural and highly purified sodium hyaluronate obtained by fermentation and is devoid of animal protein. OSTENIL® Plus also contains mannitol, a free radical scavenger, which helps to stabilise the chains of sodium hyaluronate. In biocompatibility studies, OSTENIL® Plus was found to be particularly safe.

Presentation:
One pre-filled syringe of 40 mg / 2.0 ml OSTENIL® Plus in a sterile pack.

OSTENIL® Plus is a medical device. To be used by a physician only.
Last revision date: December 2010

OSTENIL® PLUS

LOT — Batch number

Refer to instruction leaflet

Expiry date

STERILE — Sterile by moist heat

For single use only

Don't use if the sterile barrier is damaged

Refer to instruction leaflet

2°C – 25°C

CE 0123

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