# PARTICULARS TO APPEAR ON THE IMMEDIATE PACKAGE {Bottle label}

## **1. NAME OF THE VETERINARY MEDICINAL PRODUCT**

Synulox Ready-to-Use Suspension for Injection

## 2. STATEMENT OF ACTIVE AND OTHER SUBSTANCES

1 ml of suspension contains 35 mg clavulanic acid as **Potassium clavulanate** and, 140 mg amoxicillin as **Amoxicillin trihydrate**.

clavulanate-potentiated amoxicillin

#### 3. PHARMACEUTICAL FORM

Suspension for injection

#### 4. PACKAGE SIZE

40 ml 100 ml

## **5. TARGET SPECIES**

Cattle, pigs, dogs and cats

#### 6. INDICATION(S)

-

## 7. METHOD AND ROUTE(S) OF ADMINISTRATION

#### Dosage and administration:

Shake well before use. Massage injection site.

Cattle, pigs, dogs and cats: 8.75 mg/kg bodyweight once daily for 3 to 5 days.

The following is intended as a guide:



**USE DRY SYRINGE** 

## 8. WITHDRAWAL PERIOD

**Withdrawal periods:** Cattle: Meat - 42 days, Milk may only be taken at 60 hours (5th milking - if cows are milked twice daily). Pigs: Meat - 31 days.

**Combined therapy:** Withdrawal periods for combined therapy with Synulox LC Intramammary - See package leaflet for details.

## 9. SPECIAL WARNING(S), IF NECESSARY

**Contra-indications and warnings:** In common with all other penicillins Synulox should not be administered to rabbits, guinea pigs, hamsters or gerbils.

Penicillins/cephalosporins may occasionally cause severe allergic reactions

For full information including adverse reactions and operator warnings see package leaflet.

WARNING: Water sensitive - use a dry syringe Clavulanic acid is moisture sensitive. Accidental contamination with water will result in obvious beads of dark brown discolouration corresponding to the introduced water droplets. Material affected in this way should not be used, as it may have significantly reduced potency.

## 10. EXPIRY DATE

Expiry date:

## **11. SPECIAL STORAGE CONDITIONS**

Do not store above 25°C.

Following withdrawal of the first dose, use the product within 28 days. Discard unused material.

Keep the vial stored in the outer carton.

Once broached, use by:

# 12. SPECIFIC PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCTS OR WASTE MATERIALS, IF ANY

Dispose of any unused product and empty containers in accordance with guidance from your local waste regulation authority.

# 13. THE WORDS "FOR ANIMAL TREATMENT ONLY" AND CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE IF APPLICABLE

#### POM-V

To be supplied only on veterinary prescription

For animal treatment only.

### 14. THE WORDS "KEEP OUT OF THE SIGHT AND REACH OF CHILDREN"

Keep out of the sight and reach of children.

#### 15. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Zoetis UK Limited 1st Floor, Birchwood Building Springfield Drive Leatherhead Surrey KT22 7LP

#### 16. MARKETING AUTHORISATION NUMBER(S)

Vm 42058/4148

#### **17. MANUFACTURER'S BATCH NUMBER**

Batch No:

# PARTICULARS TO APPEAR ON THE OUTER PACKAGE {Outer label}

## 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Synulox Ready-to-Use Suspension for Injection

## 2. STATEMENT OF ACTIVE AND OTHER SUBSTANCES

Each vial contains 1.4 g clavulanic acid as **Potassium clavulanate** and 5.6 g amoxicillin as **Amoxicillin trihydrate**.

Each ml contains 35 mg clavulanic acid as **Potassium clavulanate** and, 140 mg amoxicillin as **Amoxicillin trihydrate**.

clavulanate-potentiated amoxicillin

#### 3. PHARMACEUTICAL FORM

Suspension for injection

#### 4. PACKAGE SIZE

12 x 40 ml 6 x 100 ml

#### 5. TARGET SPECIES

Cattle, pigs, dogs and cats

#### 6. INDICATION(S)

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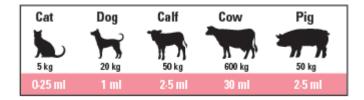
## 7. METHOD AND ROUTE(S) OF ADMINISTRATION

#### Dosage and administration:

Shake well before use. Inject by the subcutaneous or intramuscular route in dogs and cats and by the intramuscular route only in cattle and pigs, then massage the injection site. Do not use for intravenous or intrathecal injection.

**Cattle, pigs, dogs and cats:** 8.75mg/kg bodyweight once daily for 3 to 5 days. This is equivalent to 1 ml of suspension per 20 kg bodyweight daily.

The following is intended as a guide:



## 8. WITHDRAWAL PERIOD

Milk for human consumption must not be taken during treatment. Milk for human consumption may only be taken from cattle at 60 hours (5th milking, if cows are milked twice daily). Animals must not be slaughtered for human consumption during treatment. Cattle may be slaughtered for human consumption only 42 days from the date of last treatment. Pigs may be slaughtered for human consumption only 31 days from the date of last treatment. For full information see package leaflet.

**Combined therapy:** Withdrawal periods for combined therapy with Synulox LC Intramammary - See package leaflet for details.

# 9. SPECIAL WARNING(S), IF NECESSARY

For full information including adverse reactions see package leaflet.

**Contra-indications and warnings:** In common with all other penicillins Synulox should not be administered to rabbits, guinea pigs, hamsters or gerbils. Caution is advised in other very small herbivores.

**User warnings**: Penicillins and cephalosporins may occasionally cause severe allergic reactions. See package leaflet for user warnings.

WARNING: Water sensitive - use a dry syringe. Clavulanic acid is moisture sensitive. Accidental contamination with water will result in obvious beads of dark brown discolouration corresponding to the introduced water droplets. Material affected in this way should not be used, as it may have significantly reduced potency.

USE DRY SYRINGE

## 10. EXPIRY DATE

Expiry date:

## **11. SPECIAL STORAGE CONDITIONS**

Do not store above 25°C.

Following withdrawal of the first dose, use the product within 28 days. Discard unused material.

## 12. SPECIFIC PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCTS OR WASTE MATERIALS, IF ANY

Dispose of any unused product and empty containers in accordance with guidance from your local waste regulation authority.

# 13. THE WORDS "FOR ANIMAL TREATMENT ONLY" AND CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE IF APPLICABLE

POM-V

To be supplied only on veterinary prescription. For animal treatment only.

## 14. THE WORDS "KEEP OUT OF THE SIGHT AND REACH OF CHILDREN"

Keep out of the sight and reach of children.

## 15. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Zoetis UK Limited 1st Floor, Birchwood Building Springfield Drive Leatherhead Surrey KT22 7LP

## 16. MARKETING AUTHORISATION NUMBER(S)

Vm 42058/4148

## **17. MANUFACTURER'S BATCH NUMBER**

Batch No:

**PACKAGE LEAFLET FOR:** Synulox Ready-to-Use Suspension for Injection

# 1. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER AND OF THE MANUFACTURING AUTHORISATION HOLDER RESPONSIBLE FOR BATCH RELEASE, IF DIFFERENT

Zoetis UK Limited 1st Floor, Birchwood Building Springfield Drive Leatherhead Surrey KT22 7LP

Batch release site not stated

#### 2. NAME OF THE VETERINARY MEDICINAL PRODUCT

Synulox Ready-to-Use Suspension for Injection

## 3. STATEMENT OF THE ACTIVE SUBSTANCE (S) AND OTHER INGREDIENTS

Synulox Ready-To-Use Injection is an off-white suspension containing 35 mg/ml clavulanic acid as Potassium clavulanate and 140 mg/ml amoxicillin as Amoxicillin trihydrate.

clavulanate-potentiated amoxicillin

#### 4. INDICATION(S)

Synulox Ready-To-Use Injection has a notably broad spectrum of bactericidal activity against the bacteria commonly found in cattle, pigs and small animals.

**Mode of Action:** Resistance to many antibiotics is caused by ß-lactamase enzymes which destroy the antibiotic before it can act on the bacteria themselves. The clavulanate in Synulox counter-acts this defence mechanism by inactivating the ß-lactamases, thus rendering the bacteria sensitive to amoxicillin's rapid bactericidal effect at concentrations readily attainable in the body.

**In vitro** Synulox is active against a wide range of clinically important bacteria including: Gram-positive: Staphylococci (including ß-lactamase producing strains), Streptococci, Corynebacteria, Clostridia, **Bacillus anthracis**, **Actinomyces bovis**, Peptostreptococcus spp.

Gram-negative: **Escherichia coli** (including ß-lactamase producing strains), Salmonellae (including ß-lactamase producing strains), **Bordetella bronchiseptica**, Campylobacter spp., Klebsiellae, Proteus spp., Pasteurellae, **Fusobacterium necrophorum**, Bacteroides (including ß-lactamase producing strains), Haemophilus spp., Moraxella spp., Actinobacillus pleuropneumoniae and Actinobacillus lignieresi.

## Indications:

Cattle - respiratory infections, soft tissue infections (e.g. joint-ill, abscesses etc.) metritis and mastitis.

Pigs - respiratory bacterial infections in growing pigs, colibacillosis, periparturient infections in sows (e.g. mastitis-metritis- agalactia).

Dogs and cats - respiratory tract infections, urinary tract infections and skin and soft tissue infections (e.g. abscesses, pyoderma, anal sacculitis, gingivitis).

## 5. CONTRAINDICATIONS

In common with all other penicillins, Synulox should not be used orally or parenterally in rabbits, guinea pigs, hamsters or gerbils. Caution is advised in its use in any other very small herbivores.

The suspension is not suitable for intravenous or intrathecal administration. Great care should be taken to avoid contaminating the remaining contents of the vial with water (see Pharmaceutical Precautions).

## 6. ADVERSE REACTIONS

Very rarely, the use of the product may result in pain on injection and/or local tissue reactions.

Allergic reactions (allergic skin reactions, anaphylaxis) may occasionally occur. If allergic reactions occur, the product should be discontinued immediately. Appropriate symptomatic treatment should be initiated.

The frequency of adverse reactions is defined using the following convention:

- very common (more than 1 in 10 animals treated displaying adverse reaction(s))

- common (more than 1 but less than 10 animals in 100 animals treated)
- uncommon (more than 1 but less than 10 animals in 1,000 animals treated)
- rare (more than 1 but less than 10 animals in 10,000 animals treated)

- very rare (less than 1 animal in 10,000 animals treated, including isolated reports).

## 7. TARGET SPECIES

Cattle, pigs, dogs and cats.

# 8. DOSAGE FOR EACH SPECIES, ROUTE(S) AND METHOD OF ADMINISTRATION

**Cattle, pigs, dogs and cats:** 8.75 mg/kg bodyweight, equivalent to 1ml of suspension per 20 kg bodyweight. Treatment should be administered once daily for 3 to 5 days.

Inject by the subcutaneous or intramuscular route for dogs and cats and by intramuscular route only for cattle and pigs, then massage the injection site.

**Combined therapy for the treatment of bovine mastitis:** in the situation where systemic as well as intramammary treatment is necessary, Synulox Ready-to-Use Injection can be used in combination with Synulox Lactating Cow Intramammary.

Synulox RTU	Synulox LC
8.75 mg/kg bodyweight (7.0 mg amoxicillin, 1.75 mg clavulanic acid)	One syringe gently infused into the teat of the infected quarter
i.e. 1 ml/20 kg bodyweight	↓ 12 hours
↓ 24 hours	One syringe gently infused into the teat of the infected quarter
	↓ 12 hours
8.75 mg/kg bodyweight (7.0 mg amoxicillin, 1.75 mg clavulanic acid)	One syringe gently infused into the teat of the infected quarter
i.e. 1 ml/20 kg bodyweight	
↓ 24 hours	
8.75 mg/kg bodyweight (7.0 mg amoxicillin, 1.75 mg clavulanic acid)	
i.e. 1 ml/20 kg bodyweight	
Where necessary, Synulox RTU Injection may be administered for an additional two days for a total of 5 daily injections	

For combined therapy the following minimum treatment regime should be followed:

# 9. ADVICE ON CORRECT ADMINISTRATION

Shake the vial to suspend the active material.

## 10. WITHDRAWAL PERIOD(S)

Milk for human consumption must not be taken during treatment. Milk for human consumption may only be taken from cattle at 60 hours (5th milking, if cows are milked twice daily).

Animals must not be slaughtered for human consumption during treatment. Cattle may be slaughtered for human consumption only 42 days from the date of last treatment. Pigs may be slaughtered for human consumption only 31 days from the date of last treatment.

Combined therapy: when using Synulox RTU and Synulox LC Intramammary in combination, animals must not be slaughtered for human consumption during treatment. Cows may not be slaughtered for human consumption until 42 days after the last treatment. Milk must not be taken for human consumption during treatment. Milk for human consumption may be taken only from cows after 60 hours from the last treatment of Synulox RTU.

## **11. SPECIAL STORAGE PRECAUTIONS**

Do not store above 25 °C. Keep out of the sight and reach of children.

Shake the vial well before use. Swab the septum before removing each dose. Use a completely dry sterile needle and syringe.

This product does not contain antimicrobial preservative. Following withdrawal of the first dose, use the product within 28 days.

When the container is broached for the first time, using the in-use shelf-life which is specified on this package leaflet, the date on which any product remaining in the container should be discarded should be worked out. This discard date should be written in the space provided on the label.

Clavulanic acid is moisture sensitive. It is very important, therefore, that a **completely dry syringe** is used when extracting suspension for injection in order to avoid contaminating the remaining contents of the vial with drops of water. Contamination will result in obvious beads of dark brown discolouration corresponding to the introduced water droplets. Material affected in this way should not be used as it may have significantly reduced potency.

#### 12. SPECIAL WARNING(S)

For animal treatment only.

#### **Operator Warnings**

Penicillins and cephalosporins may cause hypersensitivity (allergy) following injection, inhalation, ingestion or skin contact. Hypersensitivity to penicillins may lead

to cross-reactions to cephalosporins and vice versa. Allergic reactions to these substances may occasionally be serious.

Do not handle this product if you know you are sensitised, or if you have been advised not to work with such preparations. Handle this product with great care to avoid exposure, taking all recommended precautions.

If you develop symptoms following exposure such as a skin rash, you should seek medical advice and show the doctor this warning. Swelling of the face, lips or eyes or difficulty with breathing, are more serious symptoms and require urgent medical attention. Wash hands after use.

# 13. SPECIAL PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCT OR WASTE MATERIALS, IF ANY

Dispose of any unused product and empty containers in accordance with guidance from your local waste regulation authority.

# 14. DATE ON WHICH THE PACKAGE LEAFLET WAS LAST APPROVED

March 2022

## 15. OTHER INFORMATION

Synulox Ready-To-Use Injection is available in polystyrene outers containing  $12 \times 40$  ml and  $6 \times 100$  ml vials.

## POM-V

Vm 42058/4148

## PRODUCT SUMMARY

• Novel Formulation - dual action of clavulanate-potentiated amoxicillin.

• Extended Spectrum of Activity - clavulanate extends the spectrum of amoxicillin by making it active against resistant (ß-lactamase-producing) strains of staphylococci, **E. coli**, salmonellae and Campylobacter species. Furthermore Klebsiella species are added to the range of susceptible organisms.

• Kills Bacteria Rapidly - increases the likelihood of a rapid clinical cure.

• Excellent Absorption and Penetration - ensures sufficiently high levels of Synulox at the common infection sites to achieve clinical success.

• **Highly Effective** - the novel formulation of Synulox increases the high cure rates achieved with amoxicillin alone.

Synulox is a novel concept in antibiotic therapy.

Resistance to many antibiotics is caused by ß-lactamase enzymes which destroy the antibiotic before it can act on the bacteria themselves. The clavulanate in Synulox counter-acts this defence mechanism by inactivating the ß-lactamases, thus rendering the bacteria sensitive to amoxicillin's rapid bactericidal effect, at concentrations readily attainable in the body.

Synulox is effective against Klebsiella infections found in veterinary practice, but it is not indicated for cases involving Pseudomonas species.

Approved 04 March 2022

Hurter.