

*For the use only of Registered Medical Practitioners or a Hospital or a Laboratory*

## **AUGMENTIN ES**

### **1. GENERIC NAME**

Amoxycillin and Potassium Clavulanate for Oral Suspension IP

### **2. QUALITATIVE AND QUANTITATIVE COMPOSITION**

Each 5 mL of the reconstituted suspension contains:

Amoxycillin Trihydrate IP equivalent to Amoxycillin 600 mg  
Potassium Clavulanate Diluted IP equivalent to Clavulanic Acid 42.9 mg

#### ***List of Excipients***

Xanthan Gum, Aspartame, Colloidal Silica, Carboxymethylcellulose, Strawberry Flavour, Amorphous Silica QSP.

### **3. DOSAGE FORM AND STRENGTH**

Powder for reconstitution into oral suspension.

Strength (co-amoxiclav): 642.9 mg/5 mL

An off-white free flowing powder which on reconstitution becomes an off-white suspension having a characteristic odour.

### **4. CLINICAL PARTICULARS**

#### **4.1. Therapeutic Indications**

Amoxycillin-clavulanate should be used in accordance with local official antibiotic-prescribing guidelines and local susceptibility data.

*AUGMENTIN ES* is indicated for short term treatment of paediatric patients with bacterial infections at the following sites when caused by amoxycillin-clavulanate-susceptible organisms.

- Upper Respiratory Tract Infections (including ENT) e.g.

Acute otitis media (AOM), persistent AOM, or recurrent AOM, typically caused by *Streptococcus pneumoniae*<sup>\*</sup>, *Haemophilus influenzae*<sup>#</sup> and *Moraxella catarrhalis*<sup>#</sup>.

Tonsillo-pharyngitis and sinusitis, typically caused by *Streptococcus pneumoniae*<sup>\*</sup>, *Haemophilus influenzae*<sup>#</sup>, *Moraxella catarrhalis*<sup>#</sup> and *Streptococcus pyogenes*.

- Lower Respiratory Tract Infections e.g. lobar and bronchopneumonia typically caused by *Streptococcus pneumoniae*<sup>\*</sup>, *Haemophilus influenzae*<sup>#</sup> and *Moraxella catarrhalis*<sup>#</sup>.

<sup>\*</sup>Penicillin minimum inhibitory concentration (MIC) less than or equal to 4 micrograms/mL.

<sup>#</sup>Some members of these species of bacteria produce beta-lactamase, rendering them insensitive to amoxycillin alone (see 5 *Pharmacological Properties*, 5.2 *Pharmacodynamic Properties* for further information).

Susceptibility to amoxycillin-clavulanate will vary with geography and time. Local susceptibility data should be consulted where available, and microbiological sampling and susceptibility testing performed where necessary.

Infections caused by amoxycillin-susceptible organisms are amenable to amoxycillin-clavulanate treatment due to its amoxycillin content. Mixed infections caused by amoxycillin-susceptible organisms in conjunction with amoxycillin-clavulanate-susceptible beta-lactamase-producing organisms may therefore be treated by amoxycillin-clavulanate.

## 4.2 Posology and Method of Administration

Dosage should be expressed in terms of the age of the child and either in mg/kg/day or mL of suspension per dose.

Dosages are expressed throughout in terms of amoxycillin/clavulanate content except when doses are stated in terms of an individual component.

To minimize potential gastrointestinal intolerance, administer at the start of a meal.

The absorption of amoxycillin-clavulanate is optimized when taken at the start of a meal.

Treatment should not be extended beyond 14 days without review.

Therapy can be started parenterally and continued with an oral preparation.

## Populations

*AUGMENTIN ES* is recommended for use in children aged 3 months and older.

### • Adults

There is no experience with *AUGMENTIN ES* in adults.

### • Children (3 months and older)

*AUGMENTIN ES* is recommended for dosing at 90/6.4 mg/kg/day in 2 divided doses at 12-hourly

intervals for 10 days.

There is no experience in paediatric patients weighing more than 40 kg.

There are no clinical data on amoxycillin-clavulanate in children under 3 months of age.

<b>Body Weight (kg)</b>	<b>Volume of <i>AUGMENTIN ES</i> providing 90/6.4 mg/kg/day</b>
8	3.0 mL twice daily
12	4.5 mL twice daily
16	6.0 mL twice daily
20	7.5 mL twice daily
24	9.0 mL twice daily
28	10.5 mL twice daily
32	12.0 mL twice daily
36	13.5 mL twice daily

Amoxycillin-clavulanate ES does not contain the same amount of clavulanic acid (as the potassium salt) as any of the other amoxycillin-clavulanate suspensions. Amoxycillin-clavulanate ES 600 mg/5 mL contains 42.9 mg of clavulanic acid per 5 mL whereas amoxycillin-clavulanate 200 mg/5 mL suspension contains 28.5 mg of clavulanic acid per 5 mL and the 400 mg/5 mL suspension contains 57 mg of clavulanic acid per 5 mL. Therefore, the amoxycillin-clavulanate 200 mg/5 mL and 400 mg/5 mL suspensions should not be substituted for amoxycillin-clavulanate ES 600 mg/5 mL, as they are not interchangeable.

- **Renal impairment**

No dosage adjustment is necessary in patients with creatinine clearance of greater than or equal to 30 mL/min.

*AUGMENTIN ES* is not recommended in patients with creatinine clearance of less than 30 mL/min.

- **Hepatic impairment**

Administer with caution; monitor hepatic function at regular intervals.

There are insufficient data on which to base a dosage recommendation.

#### **4.3. Contraindications**

*AUGMENTIN ES* is contraindicated.

- in patients with a history of hypersensitivity to beta-lactams, e.g. penicillins and cephalosporins.
- in patients with a previous history of amoxycillin-clavulanate associated jaundice/hepatic dysfunction.

#### **4.4. Special Warnings and Precautions for Use**

Before initiating therapy with amoxycillin-clavulanate, careful enquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, or other allergens.

Serious and occasionally fatal hypersensitivity reactions (including anaphylactoid and severe cutaneous adverse reactions) have been reported in patients on penicillin therapy.

These reactions are more likely to occur in individuals with a history of penicillin hypersensitivity (see 4.3 *Contraindications*). Hypersensitivity reactions can also progress to Kounis syndrome, a serious allergic reaction that can result in myocardial infarction. Presenting symptoms of such reactions can include chest pain occurring in association with an allergic reaction to amoxycillin-clavulanate (see 4.8 *Undesirable Effects*).

Drug-induced enterocolitis syndrome has been reported mainly in children receiving amoxycillin-clavulanate (see 4.8 *Undesirable Effects*). Drug-induced enterocolitis syndrome is an allergic reaction with the leading symptom of protracted vomiting (1-4 hours after medicinal product administration) in the absence of allergic skin or respiratory symptoms. Further symptoms could comprise abdominal pain, lethargy, diarrhoea, hypotension or leucocytosis with neutrophilia. In severe cases, drug-induced enterocolitis syndrome can progress to shock. If an allergic reaction occurs, amoxycillin-clavulanate therapy should be discontinued and appropriate alternative therapy instituted.

Serious anaphylactic reactions require immediate emergency treatment with adrenaline. Oxygen, intravenous (i.v.) steroids and airway management, including intubation may also be required.

Amoxycillin-clavulanate should be avoided if infectious mononucleosis is suspected since the occurrence of a morbilliform rash has been associated with this condition following the use of amoxycillin.

Prolonged use may also occasionally result in overgrowth of non-susceptible organisms.

Pseudomembranous colitis has been reported with the use of antibiotics and may range in severity from mild to life-threatening. Therefore, it is important to consider its diagnosis in patients who develop diarrhoea during or after antibiotic use. If prolonged or significant diarrhoea occurs or the patient experiences abdominal cramps, treatment should be discontinued immediately and the patient investigated further.

In general amoxycillin-clavulanate is well tolerated and possesses the characteristic low toxicity of the penicillin group of antibiotics. Periodic assessment of organ system functions, including renal, hepatic and haematopoietic function is advisable during prolonged therapy.

Abnormal prolongation of prothrombin time (increased INR) has been reported rarely in patients receiving amoxycillin-clavulanate and oral anticoagulants. Appropriate monitoring should be undertaken when anticoagulants are prescribed concurrently. Adjustments in the dose of oral anticoagulants may be necessary to maintain the desired level of anticoagulation.

Amoxycillin-clavulanate should be used with caution in patients with evidence of hepatic

dysfunction.

In patients with reduced urine output, crystalluria has been observed very rarely, predominantly with parenteral therapy. During the administration of high doses of amoxycillin, it is advisable to maintain adequate fluid intake and urinary output in order to reduce the possibility of amoxycillin crystalluria (see 4.9 Overdose).

*AUGMENTIN ES* contains aspartame, which is a source of phenylalanine and so should be used with caution in patients with phenylketonuria. Each 5 mL of *AUGMENTIN ES* suspension contains 7 mg of phenylalanine.

#### **4.5. Drug Interactions**

Concomitant use of probenecid is not recommended. Probenecid decreases the renal tubular secretion of amoxycillin. Concomitant use with amoxycillin-clavulanate may result in increased and prolonged blood levels of amoxycillin but not of clavulanic acid.

Concomitant use of allopurinol during treatment with amoxycillin can increase the likelihood of allergic skin reactions. There are no data on the concomitant use of amoxycillin-clavulanate and allopurinol.

In common with other antibiotics, amoxycillin-clavulanate may affect the gut flora, leading to lower oestrogen reabsorption and reduced efficacy of combined oral contraceptives.

In the literature there are rare cases of increased international normalised ratio in patients maintained on acenocoumarol or warfarin and prescribed a course of amoxycillin. If coadministration is necessary, the prothrombin time or international normalised ratio should be carefully monitored with the addition or withdrawal of amoxycillin.

In patients receiving mycophenolate mofetil, reduction in pre-dose concentration of the active metabolite mycophenolic acid of approximately 50% has been reported following commencement of oral amoxycillin plus clavulanic acid. The change in pre-dose level may not accurately represent changes in overall MPA exposure.

Penicillins may reduce the excretion of methotrexate causing a potential increase in toxicity.

#### **4.6. Use in Special Populations**

##### **Pregnancy**

Reproduction studies in animals (mice and rats at doses up to 10 times the human dose) with orally and parenterally administered amoxycillin-clavulanate have shown no teratogenic effects. In a single study in women with pre-term, premature rupture of the foetal membrane (pPROM), it was reported that prophylactic treatment with amoxycillin-clavulanate may be associated with an increased risk of necrotising enterocolitis in neonates. As with all medicines, use should be avoided in pregnancy, unless considered essential by the physician.

## **Lactation**

Amoxycillin-clavulanate may be administered during the period of lactation. With the exception of the risk of sensitization, associated with the excretion of trace quantities in breast milk, there are no known detrimental effects for the breast-fed infant.

### **4.7. Effects on Ability to Drive and Use Machines**

Adverse effects on the ability to drive or operate machinery have not been observed.

### **4.8. Undesirable Effects**

Data from large clinical trials were used to determine the frequency of very common to rare undesirable effects. The frequencies assigned to all other undesirable effects (i.e., those occurring at  $< 1/10,000$ ) were mainly determined using post-marketing data and refer to a reporting rate rather than a true frequency.

The following convention has been used for the classification of frequency:

Very common  $\geq 1/10$

Common  $\geq 1/100$  to  $< 1/10$

Uncommon  $\geq 1/1000$  to  $< 1/100$

Rare  $\geq 1/10,000$  to  $< 1/1000$

Very rare  $< 1/10,000$ .

#### ***Infections and infestations:***

Common	Mucocutaneous candidiasis
--------	---------------------------

#### ***Blood and lymphatic system disorders:***

Rare	Reversible leucopenia (including neutropenia) and thrombocytopenia
------	--

Very rare	Reversible agranulocytosis and haemolytic anaemia. Prolongation of bleeding time and prothrombin time
-----------	---

#### ***Immune system disorders:***

Very rare	Angioneurotic oedema, anaphylaxis ( <i>see 4.4 Special Warnings and Precautions for Use</i> ), serum sickness-like syndrome, hypersensitivity vasculitis ( <i>see also Skin and subcutaneous tissue disorders</i> ).
-----------	--

#### ***Nervous system disorders:***

Uncommon	Dizziness, headache
----------	---------------------

Very rare	Reversible hyperactivity, aseptic meningitis, convulsions. Convulsions may occur in patients with impaired renal function or in those receiving high doses.
-----------	---

### ***Cardiac Disorders:***

Very rare                      Kounis Syndrome (*see 4.4 Special Warning and Precautions for Use*)

### ***Gastrointestinal disorders:***

Common                      Diarrhoea, nausea, vomiting

Nausea is more often associated with higher oral dosages. If gastrointestinal reactions are evident, they may be reduced by taking amoxycillin-clavulanate at the start of a meal.

Uncommon                      Indigestion

Very rare                      Antibiotic-associated colitis (including pseudomembranous colitis and haemorrhagic colitis), drug induced enterocolitis syndrome – *see 4.4 Special Warning and Precautions for Use*.

Black hairy tongue

Superficial tooth discolouration has been reported very rarely in children. Good oral hygiene may help to prevent tooth discolouration as it can usually be removed by brushing.

### ***Hepatobiliary disorders***

Uncommon                      A moderate rise in AST and/or ALT has been noted in patients treated with beta-lactam class antibiotics, but the significance of these findings is unknown.

Very rare                      Hepatitis and cholestatic jaundice. These events have been noted with other penicillins and cephalosporins.

Hepatic events have been reported predominantly in males and elderly patients and may be associated with prolonged treatment. These events have been very rarely reported in children.

Signs and symptoms usually occur during or shortly after treatment but in some cases may not become apparent until several weeks after treatment has ceased. These are usually reversible. Hepatic events may be severe and in extremely rare circumstances, deaths have been reported. These have almost always occurred in patients with serious underlying disease or taking concomitant medications known to have the potential for hepatic effects.

### ***Skin and subcutaneous tissue disorders***

Uncommon                      Skin rash, pruritus, urticaria

Rare                              Erythema multiforme

Very rare                      Stevens-Johnson syndrome, toxic epidermal necrolysis, bullous exfoliative-dermatitis, acute generalised exanthemous pustulosis (AGEP), drug reaction with eosinophilia and systemic symptoms (DRESS) and symmetrical drug-related intertriginous and flexural exanthema (SDRIFE) (baboon syndrome) (*see also Immune system disorders*).

If any hypersensitivity dermatitis reaction occurs, treatment should be discontinued.

Linear IgA disease

### ***Renal and urinary disorders***

Very rare                      Interstitial nephritis, crystalluria (*see 4.9 Overdose*)

## **4.9. Overdose**

### **Symptoms and Signs**

Gastrointestinal symptoms and disturbance of the fluid and electrolyte balances may be evident.

Amoxycillin crystalluria, in some cases leading to renal failure, has been observed (*see 4.4 Special Warnings and Precautions for Use*).

### **Treatment**

GI symptoms may be treated symptomatically, with attention to the water/electrolyte balance. Amoxycillin-clavulanate can be removed from the circulation by haemodialysis.

### ***Children***

A prospective study of 51 paediatric patients at a poison control centre suggested that overdoses of less than 250 mg/kg of amoxycillin are not associated with significant clinical symptoms and do not require gastric emptying.

### **Drug abuse and dependence:**

Drug dependency, addiction and recreational abuse have not been reported as a problem with this compound.

## **5. PHARMACOLOGICAL PROPERTIES**

### **ATC code**

Anatomical Therapeutic Chemical (ATC) code: J01CR02.

Pharmacotherapeutic group: Combinations of penicillins, incl. beta-lactamase inhibitors.



## 5.1. Mechanism of Action

Amoxycillin is a semisynthetic antibiotic with a broad spectrum of antibacterial activity against many gram-positive and gram-negative microorganisms. Amoxycillin is, however, susceptible to degradation by beta-lactamases and therefore the spectrum of activity of amoxycillin alone does not include organisms which produce these enzymes.

Clavulanic acid is a beta-lactam, structurally related to the penicillins, which possesses the ability to inactivate a wide range of beta-lactamase enzymes commonly found in micro-organisms resistant to penicillins and cephalosporins. In particular, it has good activity against the clinically important plasmid mediated beta-lactamases frequently responsible for transferred drug resistance. It is generally less effective against chromosomally-mediated type 1 beta-lactamases.

The presence of clavulanic acid in amoxycillin-clavulanate formulations protects amoxycillin from degradation by beta-lactamase enzymes and effectively extends the antibacterial spectrum of amoxycillin to include many bacteria normally resistant to amoxycillin and other penicillins and cephalosporins. Thus amoxycillin-clavulanate possesses the distinctive properties of a broad-spectrum antibiotic and a beta-lactamase inhibitor.

## 5.2. Pharmacodynamic Properties

In the list below, organisms are categorized according to their *in vitro* susceptibility to amoxycillin-clavulanate.

### ***In vitro* susceptibility of micro-organisms to amoxycillin-clavulanate**

Where clinical efficacy of amoxycillin-clavulanate has been demonstrated in clinical trials this is indicated with an asterisk (\*).

Organisms that do not produce beta-lactamase are identified (with †). If an isolate is susceptible to Amoxycillin, it can be considered susceptible to amoxycillin-clavulanate.

### **Commonly susceptible species**

#### Gram-positive aerobes:

*Bacillus anthracis*  
*Enterococcus faecalis*  
*Listeria monocytogenes*  
*Nocardia asteroides*  
*Streptococcus pneumoniae*\*†  
Viridans group streptococcus†  
*Streptococcus pyogenes*\*†  
*Streptococcus agalactiae*\*†  
*Streptococcus* spp. (other beta-haemolytic)\*†  
*Staphylococcus aureus* (methicillin susceptible)\*  
*Staphylococcus saprophyticus* (methicillin susceptible)

Coagulase negative staphylococcus (methicillin susceptible)
<u>Gram-negative aerobes:</u>  <i>Bordetella pertussis</i> <i>Haemophilus influenzae</i> * <i>Haemophilus parainfluenzae</i> <i>Helicobacter pylori</i> <i>Moraxella catarrhalis</i> * <i>Neisseria gonorrhoeae</i> <i>Pasteurella multocida</i> <i>Vibrio cholerae</i>
<u>Other:</u>  <i>Borrelia burgdorferi</i> <i>Leptospira icterohaemorrhagiae</i> <i>Treponema pallidum</i>
<u>Gram positive anaerobes:</u>  <i>Clostridium</i> spp. <i>Peptococcus niger</i> <i>Peptostreptococcus magnus</i> <i>Peptostreptococcus micros</i> <i>Peptostreptococcus</i> spp.
<u>Gram-negative anaerobes:</u>  <i>Bacteroides fragilis</i> <i>Bacteroides</i> spp. <i>Capnocytophaga</i> spp. <i>Eikenella corrodens</i> <i>Fusobacterium nucleatum</i> <i>Fusobacterium</i> spp. <i>Porphyromonas</i> spp. <i>Prevotella</i> spp.
<b>Species for which acquired resistance may be a problem</b>

<u>Gram-negative aerobes:</u> <i>Escherichia coli</i> * <i>Klebsiella oxytoca</i> <i>Klebsiella pneumoniae</i> * <i>Klebsiella</i> spp. <i>Proteus mirabilis</i> <i>Proteus vulgaris</i> <i>Proteus</i> spp. <i>Salmonella</i> spp. <i>Shigella</i> spp.
<u>Gram-positive aerobes:</u>  <i>Corynebacterium</i> spp. <i>Enterococcus faecium</i>
<b>Inherently resistant organisms</b>
<u>Gram-negative aerobes:</u> <i>Acinetobacter</i> spp. <i>Citrobacter freundii</i> <i>Enterobacter</i> spp. <i>Hafnia alvei</i> <i>Legionella pneumophila</i> <i>Morganella morganii</i> <i>Providencia</i> spp. <i>Pseudomonas</i> spp. <i>Serratia</i> spp. <i>Stenotrophomas maltophilia</i> <i>Yersinia enterocolitica</i>
<u>Others:</u>  <i>Chlamydia pneumoniae</i> <i>Chlamydia psittaci</i> <i>Chlamydia</i> spp. <i>Coxiella burnetii</i> <i>Mycoplasma</i> spp.

### 5.3. Pharmacokinetic Properties

#### Absorption

The two components, of amoxycillin-clavulanate, amoxycillin and clavulanic acid are fully dissociated in aqueous solution at physiological pH. Both components are rapidly and well absorbed by the oral route of administration.

Absorption of amoxycillin-clavulanate is optimized when taken at the start of a meal.

Pharmacokinetic parameters are given below for *AUGMENTIN ES* administered at 45 mg/kg every 12 hours to paediatric patients.

Formulation	C max (mg/L)	Tmax (hours)	AUC (mg.h/L)	T <sup>1/2</sup> (hours)
<i>AUGMENTIN ES</i> dosed at 45 mg/kg amoxycillin 12- hourly	<i>Amoxycillin</i>			
	15.7	2.0	59.8	1.4
	<i>Clavulanic acid</i>			
	1.7	1.1	4.0	1.1

Amoxycillin serum concentrations achieved with amoxycillin-clavulanate are similar to those produced by the oral administration of equivalent doses of amoxycillin alone.

### Distribution

Following i.v. administration therapeutic concentrations of both amoxycillin and clavulanic acid may be detected in the tissues and interstitial fluid. Therapeutic concentrations of both drugs have been found in gall bladder, abdominal tissue, skin, fat, and muscle tissues; fluids found to have therapeutic levels include synovial and peritoneal fluids, bile and pus.

Neither amoxycillin nor clavulanic acid is highly protein bound, studies show that about 25% for clavulanic acid and 18% for amoxycillin of total plasma drug content is bound to protein.

From animal studies there is no evidence to suggest that either component accumulates in any organ.

Amoxycillin, like most penicillins, can be detected in breast milk. Trace quantities of clavulanate can also be detected in breast milk. With the exception of the risk of sensitisation associated with this excretion, there are no known detrimental effects for the breast-fed infant.

Reproduction studies in animals have shown that both amoxycillin and clavulanic acid penetrate the placental barrier. However, no evidence of impaired fertility or harm to the foetus was detected.

### Metabolism

Amoxycillin is partly excreted in the urine as the inactive penicilloic acid in quantities equivalent to 10 to 25% of the initial dose. Clavulanic acid is extensively metabolized in man to 2,5-dihydro- 4-(2-hydroxyethyl)-5-oxo-1H-pyrrole-3-carboxylic acid and 1-amino-4-hydroxy-butan-2-one and eliminated in urine and faeces as carbon dioxide in expired air.

### Elimination

As with other penicillins, the major route of elimination for amoxycillin is via the kidney, whereas for clavulanate it is by both renal and non-renal mechanisms. Approximately 60 to 70% of the amoxycillin and approximately 40 to 65% of the clavulanic acid are excreted unchanged in urine during the first 6 hours after administration of a single 250/125 mg or a single 500/125 mg tablet.

Concomitant use of probenecid delays amoxycillin excretion but does not delay renal excretion of clavulanic acid (see 4.5 Drug Interactions).

## 6. NONCLINICAL PROPERTIES

### 6.1. Animal Toxicology and Pharmacology

No further information of relevance.

## 7. DESCRIPTION

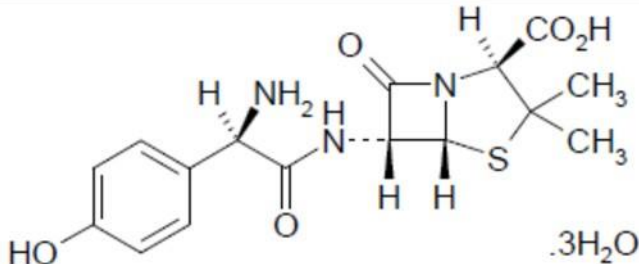
### General Description

Amoxycillin-clavulanate (beta-lactam antibacterial penicillin coformulated with a beta-lactamase inhibitor) is an antibiotic agent with a notably broad spectrum of activity against the commonly occurring bacterial pathogens in general practice and hospital. The beta-lactamase inhibitory action of clavulanate extends the spectrum of amoxycillin to embrace a wider range of organisms, including many resistant to other beta-lactam antibiotics.

### Chemical Structure

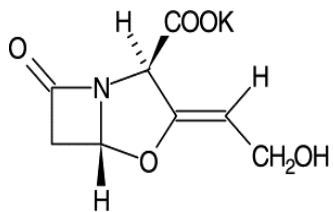
Amoxycillin-clavulanate is a coformulation of amoxycillin trihydrate and potassium clavulanate.

#### *Amoxycillin trihydrate*

<i>Chemical name</i>	(2S,5R,6R)-6-[(R)-(-)-2-amino-2-(p-hydroxyphenyl) acetamido]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid trihydrate.
<i>Structural formula</i>	
<i>Molecular formula</i>	C <sub>16</sub> H <sub>19</sub> N <sub>3</sub> O <sub>5</sub> S · 3H <sub>2</sub> O
<i>Relative molecular mass</i>	365.4 (anhydrous) 419.4 (trihydrate form)

#### *Potassium clavulanate*

<i>Chemical name</i>	Potassium (Z)-(2R,5R)-3-(2-hydroxyethylidene)-7-oxo-4-oxa-1-azabicyclo[3.2.0]heptane-2-carboxylate.
----------------------	---

<i>Structural formula</i>	
<i>Molecular formula</i>	C <sub>8</sub> H <sub>8</sub> NO <sub>5</sub> K
<i>Relative molecular mass</i>	237.3 (as the potassium salt) 199.2 (as the free acid)

## 8. PHARMACEUTICAL PARTICULARS

### 8.1. Incompatibilities

There is no relevant data available.

### 8.2. Shelf Life

The expiry date is indicated on the label and packaging.

Once reconstituted, 10 days when kept in a refrigerator (2°C to 8°C) (see 8.4 *Storage and Handling Information*).

### 8.3. Packaging Information

*AUGMENTIN ES* powder for oral suspension is supplied in clear glass bottles with a plastic (polypropylene and/or high -density polyethylene) child- resistant cap and a removable foil backed seal on the bottle.

### 8.4. Storage and Handling Information

Store in a dry place in the original package to protect from moisture. Store below 30°C.

Keep out of reach of children.

Check foil-backed bottle seal is intact before using.

Before reconstitution shake bottle to loosen powder.

**Do not use if powder / reconstituted solution turns pale yellow to brown colour.**

This product comes in child-resistant packaging.

This product comes in child-resistant packaging

To open the bottle follow the instructions given below:



For more information open the link below:

[bit.ly/GSK-India-CR2](http://bit.ly/GSK-India-CR2)

Direction for Preparation: Shake the bottle to loosen powder. To make up to 60 mL, add boiled and cooled water till fill-mark on bottle. Replace the cap and shake the bottle until all of the powder is suspended.

After reconstitution, close the bottle tightly and immediately keep in a refrigerator when not in use. Invert and shake bottle well before each use.

Reconstituted suspension should be stored refrigerated at 2°C to 8°C. Do not freeze.

Discard unused suspension after 10 days.

For administration to children up to 2 years old, *AUGMENTIN ES* suspension may be diluted to half-strength using water.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

## 9. PATIENT COUNSELLING INFORMATION

Registered Medical Practitioners may counsel their patients (and/or their patients' caregiver as applicable) about the special warnings and precautions for use, drug interactions, undesirable effects, and any relevant contraindications of *AUGMENTIN ES*. Patients (and/or patients' caregiver) may also be informed about posology, method of administration and storage/handling information as applicable.

## 10. DETAILS OF MANUFACTURER

The manufacturing site details are mentioned on the label and packaging.

**For further information please contact:**

GlaxoSmithKline Pharmaceuticals Limited.

**Registered Office:**

Dr. Annie Besant Road, Worli  
Mumbai 400 030, India.

**11. DETAILS OF PERMISSION OR LICENSE NUMBER WITH DATE**

Manufacturing License number is indicated on the label and packaging.

**12. DATE OF REVISION**

21-Jul-2025

Trademarks are owned by or licensed to the GSK group of companies.

*Version: AUG-ES((LM))/PI/IN/2025/01*

*Adapted from Amoxicillin-Clavulanate Oral GDS 29/Augmentin ES IPI 15 dated 07 September 2023*