### SUMMARY OF PRODUCT CHARACTERISTICS

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

Almus Senna Tablets Aspar Senna Tablets Potter's Senna Tablets Wilko Senna Tablets Lloyds Pharmacy Senna Tablets Sainsbury's Senna Tablets Tesco Health Senna Tablets Healthpoint Senna Tablets Care Senna Tablets Accord Senna Tablets Essential Waitrose Senna Tablets Superdrug Senna Tablets Numark Senna Tablets Potter's Senna Constipation Relief Tablets

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains Alexandrian Senna fruit (*Cassia senna* L. (*C. acutifolia* Delile) fruit) corresponding to 7.5 mg hydroxyanthracene glycosides, calculated as sennoside B.

## **3 PHARMACEUTICAL FORM**

Tablet. An uncoated biconvex greenish tablet.

## 4 CLINICAL PARTICULARS

#### 4.1 Therapeutic indications

A herbal medicinal product used for the short term relief of occasional constipation.

#### 4.2 **Posology and method of administration**

For oral use only.

The maximum daily dose of hydroxyanthracene glycosides is 30 mg. This is equivalent to 4 tablets.

The correct individual dose is the smallest required to produce a comfortable soft-formed motion.

Adults and the elderly: Take two tablets at bedtime when required. Children over 12 years: One tablet at night when required. Not recommended for use in children under 12 years of age (See Section 4.4. 'Special warnings and precautions for use'). **Duration of use** 

Use for more than 1-2 weeks requires medical supervision. If there is no bowel movement after three days a doctor should be consulted.

If laxatives are needed every day, or abdominal pain persists a doctor should be consulted.

If symptoms persist during the use of the medicinal product, a doctor or a qualified healthcare practitioner should be consulted.

#### 4.3 Contraindications

Hypersensitivity to the active ingredient or to any of the excipients.

Cases of intestinal obstructions and stenosis, atony, appendicitis, inflammatory colon diseases (e.g. Crohn's disease, ulcerative colitis) abdominal pain of unknown origin, severe dehydration state with water and electrolyte depletion.

Children under 12 years of age.

#### 4.4 Special warnings and precautions for use

Do not exceed the stated dose.

Prolonged use may precipitate the onset of an atonic, non-functioning colon.

Prolonged and excessive use may lead to fluid and electrolyte imbalance and hypokalaemia.

Patients taking cardiac glycosides, antiarrhythmic medicinal products, medicinal products inducing QT-prolongation, diuretics, adrenocorticosteroids or liquorice root, have to consult a doctor before taking senna pods concomitantly.

Like all laxatives, senna pods should not be taken by patients suffering from faecal impaction and undiagnosed acute or persistent gastro-intestinal complaints, e.g. abdominal pain, nausea and vomiting, unless advised by a doctor, because these symptoms can be signs of potential or existing intestinal blockage (ileus).

If laxatives are needed every day the cause of the constipation should be investigated. Long-term use of laxatives should be avoided.

If stimulant laxatives are taken for longer than a brief period of treatment, this may lead to impaired function of the intestine and dependence on laxatives.

Senna pod preparations should only be used if a therapeutic effect cannot be achieved by a change of diet or the administration of bulk forming agents.

When administering this product to incontinent adults, pads should be changed more frequently to prevent extended skin contact with faeces.

Patients with kidney disorders should be aware of possible electrolyte imbalance.

If the symptoms persist during the use of the medicinal product, a doctor or a pharmacist should be consulted.

The use in children under 12 years of age is not recommended because data are not sufficient and medical advice should be sought.

Intestinal loss of fluids may promote dehydration. Symptoms may include thirst and oliguria.

Laxatives do not help in long-term weight loss

**4.5** Interaction with other medicinal products and other forms of interaction Hypokalaemia (resulting from long-term laxative abuse) potentiates the action of cardiac glycosides and interacts with antiarrhythmic medicinal products, which induce reversion to sinus rhythm (e.g. quinidine) and with medicinal products inducing QT-prolongation. Concomitant use with other medicinal products inducing hypokalaemia (e.g. diuretics, adrenocorticosteroids and liquorice root) may enhance electrolyte imbalance.

#### 4.6 Fertility, Pregnancy and lactation Pregnancy

There are no reports of undesirable or damaging effects during pregnancy and on the foetus when used at the recommended dosage schedule.

However, as a consequence of experimental data concerning a genotoxic risk of several anthranoids, e.g. emodin and aloe-emodin, use is not recommended during pregnancy.

#### Lactation

Use during breastfeeding is not recommended as there are insufficient data on the excretion of metabolites in breast milk.

Small amounts of active metabolites (rhein) are excreted in breast milk. A laxative effect in breast fed babies has not been reported.

Studies on the effects on fertility have not been carried out.

#### 4.7 Effects on ability to drive and use machines

No studies on the effect on the ability to drive and use machines have been performed.

#### 4.8 Undesirable effects

Hypersensitivity reactions (pruritus, urticaria, local or generalized exanthema) may occur.

This product may produce abdominal pain and spasm and passage of liquid stools, in particular in patients with irritable colon. However, these symptoms may also occur generally as a consequence of individual overdose. In such cases dose reduction is necessary.

Chronic use may lead to disorders in water equilibrium and electrolyte metabolism and may result in albuminuria and haematuria. Furthermore, chronic use may cause pigmentation of the intestinal mucosa (pseudomelanosis coli).

Yellow or red-brown (pH dependent) discolouration of urine by metabolites, which is not clinically significant, may occur during the treatment. The frequency is not known.

If other adverse reactions not mentioned above occur, a doctor or a qualified health care practitioner should be consulted.

#### **Reporting of suspected adverse reactions**

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the Yellow Card Scheme at: <u>www.mhra.gov.uk/yellowcard</u> or search for MHRA Yellow Card in the Google Play or Apple App Store.

#### 4.9 Overdose

The major symptoms of overdose/abuse are griping pain and severe diarrhoea with consequent losses of fluid and electrolytes, which should be replaced. Diarrhoea may especially cause potassium depletion, which may lead to cardiac disorders and muscular asthenia, particularly where cardiac glycosides, diuretics, adrenocorticosteroids or liquorice root are being taken at the same time.

Treatment should be supportive with generous amounts of fluid. Electrolytes, especially potassium, should be monitored. This is especially important in the elderly.

Chronic ingested overdoes of anthranoid containing medicinal products may lead to toxic hepatitis.

## **5 PHARMACOLOGICAL PROPERTIES**

#### 5.1 Pharmacodynamic properties

Pharmaco-therapeutic group: contact laxatives ATC-code: A 06 AB

1,8-dihydroxyanthracene derivatives possess a laxative effect. The  $\beta$ -O-linked glycosides (sennosides) are not absorbed in the upper gut; they are converted by bacteria of the large intestine into the active metabolite (rhein anthrone).

There are two different mechanisms of action:

- 1. stimulation of the motility of the large intestine resulting in accelerated colonic transit.
- 2. influence on secretion processes by two concomitant mechanisms viz. inhibition of absorption of water and electrolytes (Na+, Cl-) into the colonic epithelial cells (antiabsorptive effect) and increase of the leakiness of the tight junctions and stimulation of secretion of water and electrolytes into the lumen of the colon (secretagogue effect) resulting in enhanced concentrations of fluid and electrolytes in the lumen of the colon.

Defaecation takes place after a delay of 8 - 12 hours due to the time taken for transport to the colon and metabolisation into the active compound.

#### 5.2 Pharmacokinetic properties

The  $\beta$ -O-linked glycosides (sennosides) are neither absorbed in the upper gut nor split by human digestive enzymes. They are converted by the bacteria of the large intestine into the active metabolite (rhein anthrone). Aglyca are absorbed in the upper gut. Animal experiments with radio-labeled rhein anthrone administered directly into the caecum demonstrated absorption < 10%. In contact with oxygen, rhein anthrone is oxidised into rhein and sennidins, which can be found in the blood, mainly in the form of glucuronides and sulphates. After oral administration of sennosides, 3 - 6% of the metabolites are excreted in urine; some are excreted in bile. Most of the sennosides (ca. 90%) are excreted in faeces as polymers (polyquinones) together with 2 - 6% of unchanged sennosides, sennidins, rhein anthrone and rhein. In human pharmacokinetic studies with senna pods powder (20 mg sennosides), administered orally for 7 days, a maximum concentration of 100 ng rhein/ml was found in the blood. An accumulation of rhein was not observed. Active metabolites, e.g. rhein, pass in small amounts into breast milk. Animal experiments demonstrated that placental passage of rhein is low.

#### 5.3 Preclinical safety data

Most data refer to extracts containing 1.4 to 3.5% of anthranoids, corresponding to 0.9 to 2.3% of potential rhein, 0.05 to 0.15% of potential aloe-emodin and 0.001 to 0.006% of potential emodin or isolated active constituents, e.g. rhein or sennosides A and B. The acute toxicity of senna pods, specified extracts thereof, as well as of sennosides in rats and mice was low after oral treatment. As a result of investigations with parenteral application in mice, extracts are supposed to possess a higher toxicity than purified glycosides, possibly due to the content of aglyca. In a 90-day rat study, senna pods were administered at dose levels from 100 mg/kg of up to 1,500 mg/kg. The tested drug contained 1.83 % sennosides A-D, 1.6 % potential rhein, 0.11 % potential aloe-emodin and 0.014 % potential emodin. In all groups epithelial hyperplasia of the large intestine of minor degree was found and was reversible within the 8-week recovery period. The hyperplastic lesions of the forestomach epithelium were reversible as well. Dose-dependent tubular basophilia and epithelial hypertrophy of the kidneys were seen at a dose of, or greater than 300 mg/kg per day without functional affection. These changes were also reversible. Storage of a brown tubular pigment led to a dark

discoloration of the renal surface and still remained to a lesser degree after the recovery period. No alterations were seen in the colonic nervous plexus. A no-observable-effect-level (NOEL) could not be obtained in this study.

A 104-week study on rats of both genders did not reveal any carcinogenic effects with the same senna pods preparation at oral dosages of up to 300 mg/kg.

In addition a specified senna extract given orally for 2 years was not carcinogenic in male or female rats. The extract investigated contained approximately 40.8% of anthranoids from which 35% were sennosides, corresponding to about 25.2% of potential rhein, 2.3% of potential aloe-emodin and 0.007% of potential emodin and 142 ppm free aloe-emodin and 9 ppm free emodin.

Further 2-year studies on male and female rats and mice with emodin gave no evidence of carcinogenic activity for male rats and female mice, and equivocal evidence for female rats and male mice.

Sennosides displayed no specific toxicity when tested at doses up to 500 mg/kg in dogs for 4 weeks and up to 100 mg/kg in rats for 6 months.

There was no evidence of any embryolethal, teratogenic or foetotoxic actions in rats or rabbits after oral treatment with sennosides. Furthermore, there was no effect on the postnatal development of young rats, on rearing behaviour of dams or on male and female fertility in rats. Data for herbal preparations are not available.

An extract and aloe-emodin were mutagenic in *in vitro* tests, sennoside A, B and rhein gave negative results. Comprehensive *in vivo* examinations of a defined extract of senna pods were negative.

Chronic laxative use as a risk factor in colorectal cancer (CRC) was investigated in some clinical trials. Some studies revealed a risk for CRC associated with the use of anthraquinone-containing laxatives, some studies did not. However, a risk was also revealed for constipation itself and underlying dietary habits. Further investigations are needed to assess the carcinogenic risk definitely

### 6 PHARMACEUTICAL PARTICULARS

#### 6.1 List of excipients

Magnesium Stearate Fennel Seed Croscarmellose Sodium Calcium Hydrogen Phosphate Dihydrate Microcrystalline Cellulose Colloidal Anhydrous Silica

## 6.2 Incompatibilities

None known.

#### 6.3 Shelf life

2 years

#### 6.4 Special precautions for storage

Do not store above 25°C. Store in the original container.

#### 6.5 Nature and contents of container

PVC/ PVdC/ aluminium blister pack of 12, 20, 24, 50 and 60 and 100 tablets. HDPE/LDPE bottles of 24, 50 and 100 tablets.

# 6.6 Special precautions for disposal Not applicable.

## 7 MARKETING AUTHORISATION HOLDER

Soho Flordis UK Limited 1 Botanic Court, Martland Park, Wigan, WN5 0JZ, UK. Trading as: Potters, Wigan WN5 0JZ

## 8 MARKETING AUTHORISATION NUMBER(S)

PL 44893/0031

## 9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

23/07/2012

## **10 DATE OF REVISION OF THE TEXT**

02/09/2019