

**IRISH MEDICINES BOARD ACTS 1995 AND 2006**

**MEDICINAL PRODUCTS(CONTROL OF PLACING ON THE MARKET)REGULATIONS,2007**

**(S.I. No.540 of 2007)**

**PA1410/052/002**

Case No: 2073258

The Irish Medicines Board in exercise of the powers conferred on it by the above mentioned Regulations hereby grants to

**Bayer Limited**

**The Atrium, Blackthorn Road, Dublin 18, Ireland**

an authorisation, subject to the provisions of the said Regulations, in respect of the product

**Rennie Liquid Relief, oral suspension, Grams**

The particulars of which are set out in Part I and Part II of the attached Schedule. The authorisation is also subject to the general conditions as may be specified in the said Regulations as listed on the reverse of this document.

This authorisation, unless previously revoked, shall continue in force from **03/11/2009**.

Signed on behalf of the Irish Medicines Board this

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A person authorised in that behalf by the said Board.

## Part II

### Summary of Product Characteristics

#### 1 NAME OF THE MEDICINAL PRODUCT

Rennie Liquid Relief, oral suspension

#### 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

100 ml of suspension contains: 12.0 g calcium carbonate, 1.4 g light magnesium carbonate and 3.0 g sodium alginate.

10 ml (1 dose) of suspension contains: 1200 mg calcium carbonate, 140 mg light magnesium carbonate and 300 mg sodium alginate.

Excipients: Contains 120 mg of sodium per 10 ml dose and sodium propyl parahydroxybenzoate (E217).

For a full list of excipients, see section 6.1.

#### 3 PHARMACEUTICAL FORM

Oral suspension.

Cream to light brown suspension.

#### 4 CLINICAL PARTICULARS

##### 4.1 Therapeutic Indications

Symptomatic treatment of complaints resulting from gastro-oesophageal reflux and hyperacidity, such as regurgitation and heartburn.

##### 4.2 Posology and method of administration

The usual unit dose is 10 ml (2 teaspoons), preferably to be taken one hour after meals and before going to bed. Additionally, in the case of heartburn between doses, an extra dose of 10 ml can be taken. Do not take more than six unit doses in 24 hours.

Recommended in adults only (above 12 years). Shake the bottle well before use.

As with all antacids, if symptoms persist in spite of therapy, diagnostic measures are strongly recommended in order to rule out a more serious disease.

For Special warnings and precautions for use please also see section 4.4.

##### 4.3 Contraindications

- Severe renal insufficiency,
- hypercalcaemia and/or conditions resulting in hypercalcaemia
- pre-existing hypophosphataemia
- nephrolithiasis associated with calcium-containing stones
- hypersensitivity to the active substances or to any of the excipients.

## 4.4 Special warnings and precautions for use

Prolonged use should be avoided.

If the symptoms persist or abate only partially, further medical examination is required. As with other antacids, Rennie Liquid Relief can mask the symptoms of a gastric malignancy.

Rennie Liquid Relief should not be used in the following cases:

- Hypercalciuria
- In general, caution should be exercised in the case of patients with impaired renal function.
- If Rennie Liquid Relief is used in such patients, plasma calcium, phosphate and magnesium levels should be regularly monitored.

In general calcium containing antacids should be carefully administered in patients with constipation, haemorrhoids and sarcoidosis.

Long-term use at high doses can result in undesirable effects such as hypercalcaemia, hypermagnesemia and milk-alkali syndrome, especially in patients with renal insufficiency. The product should not be taken with large amounts of milk or dairy products.

Prolonged use possibly enhances the risk for the development of renal calculi.

10 ml of suspension contains 120 mg of sodium which should be considered for patients on a restricted sodium diet.

In the literature a possible relationship between calcium carbonate and appendicitis, gastrointestinal haemorrhage, intestinal blockage, or oedema has been reported in single cases.

If symptoms persist after seven days, the clinical situation should be reviewed by a healthcare professional.

## 4.5 Interaction with other medicinal products and other forms of interaction

Changes in gastric acidity, such as that caused by the ingestion of antacids, can affect the rate and degree to which some concurrently administered medicines are absorbed. It has been shown that antacids which contain calcium or magnesium can impede the absorption of some antibiotics (such as tetracyclines and quinolones) and cardiac glycosides (e.g. digoxin, digitoxin).

Calcium salts reduce the absorption of fluoride.

Thiazide diuretics reduce the urinary excretion of calcium. Due to increased risk of hypercalcaemia, serum calcium should be regularly monitored during concomitant use of thiazide diuretics.

Calcium and magnesium salts can impede the absorption of phosphates.

Because of possible changes in the rates of absorption of concurrently administered medicines, it is recommended that antacids should not be taken concurrently with these medicines, but 1 to 2 hours later.

### Effects on laboratory parameters:

The administration of antacids may interfere with physiologic values/analytics: urinary system pH may increase while serum concentration of phosphates and potassium may decrease with excessive and prolonged use.

## 4.6 Pregnancy and lactation

Up to now, no increased risk of congenital defects has been observed after the use of calcium carbonate, magnesium carbonate and sodium alginate during pregnancy. In case of high or prolonged doses or renal insufficiency, the risk for hypercalcaemia and/or hypermagnesemia can not be completely excluded. Rennie Liquid Relief can be used during pregnancy if taken as instructed and if prolonged intake of high dosages is avoided. Rennie Liquid Relief can be used during lactation if taken as instructed.

During pregnancy and lactation, it has to be taken into account that Rennie Liquid Relief provides a substantial amount of calcium in addition to dietary calcium intake. For this reason, pregnant women should strictly limit their use of Rennie Liquid Relief to the maximum recommended daily dose and avoid concomitant, excessive intake of milk and dairy products. This warning is to prevent calcium overload which might result in milk alkali syndrome.

## 4.7 Effects on ability to drive and use machines

Rennie Liquid Relief would not be expected to affect these functions.

## 4.8 Undesirable effects

### *Skin and subcutaneous tissue disorders:*

Rarely, hypersensitivity reactions, including Quincke oedema and anaphylactic shock, have been reported.

### *Metabolism and nutrition disorders:*

Prolonged use of high doses can result in hypermagnesemia or hypercalcaemia and alkalosis (GI symptoms such as nausea and vomiting, fatigue, confusion, polyuria, polydipsia, dehydration), especially in patients with impaired renal function. Prolonged use of high doses of calcium carbonate with milk may lead to Burnett syndrome (milk-alkali syndrome).

### *Gastrointestinal disorders:*

Although magnesium compounds can produce a laxative effect, in view of the dose recommendations the low magnesium content of Rennie Liquid Relief would not be expected to have any undesirable effects.

## 4.9 Overdose

Especially in patients with impaired renal function, prolonged use of high doses of calcium carbonate and magnesium carbonate can result in renal insufficiency, hypermagnesemia, hypercalcaemia and alkalosis, which may give rise to gastric symptoms (nausea, vomiting, constipation) and abnormal muscular weakness. In such cases, the product should be withdrawn and adequate fluid intake encouraged. In severe cases of overdosage (e.g. milk-alkali syndrome) other measures of rehydration (e.g. infusions) might be necessary.

## 5 PHARMACOLOGICAL PROPERTIES

### 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Antacids, other combinations, ATC code: ATC AO2A X

Rennie Liquid Relief is a combination of two antacids (calcium carbonate and magnesium carbonate) with an alginate.

Rennie Liquid Relief acts locally and is not dependent on systemic absorption.

Calcium carbonate has a rapid, long-lasting and powerful neutralising effect. This effect is enhanced by the addition of magnesium carbonate, which also has a powerful neutralising effect. In human volunteers, only 3 minutes are necessary for gastric pH to significantly increase above the baseline. The total neutralising capacity of the product is 32 mEq/H<sup>+</sup> (titration to end point pH 2.5).

In addition to the antacids' acid-neutralising effect, the sodium alginate contained in Rennie Liquid Relief causes a viscous gel to form. This gel floats on the surface of the stomach contents, acting as a mechanical barrier against gastric reflux.

### 5.2 Pharmacokinetic properties

#### Calcium and magnesium:

In the stomach: calcium carbonate and magnesium carbonate react with gastric acid forming soluble chloride salts.

Calcium and magnesium can be absorbed from these (soluble) salts.

The degree of absorption is, however, patient-dependent and dose-dependent. About 10% of the calcium and 15-20% of the magnesium is absorbed.

In healthy individuals, the small quantities of calcium and magnesium absorbed are usually rapidly excreted via the kidneys. Patients with impaired renal function, however, may develop elevated serum concentrations of calcium and magnesium.

In the intestinal tract, various non-gastric digestive juices convert the soluble salts to insoluble salts, which are then eliminated with the faeces.

#### Sodium alginate:

After being taken orally, sodium alginate is not converted in the gastrointestinal tract; 80-100% of the ingested quantity is eliminated. The absorption of alginate salts is negligible.

### 5.3 Preclinical safety data

Not relevant.

## 6 PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Sodium hydrogen carbonate,  
Xanthan gum,  
Sodium saccharin,  
Peppermint oil,  
Chocolate flavouring,  
Benzyl alcohol,  
Sodium propylparahydroxybenzoate (E217),  
Purified water.

Composition of natural and nature identical chocolate flavour:

Cocoa extract,  
Vanillin,  
Propylene glycol,  
Isopropyl alcohol.

Composition of natural peppermint oil:

Cineol,  
Menthone,  
Menthyl acetate,  
Neomentol,  
Menthol.

### 6.2 Incompatibilities

The suspension should not be mixed with other products.

### 6.3 Shelf Life

2 years.

### 6.4 Special precautions for storage

Do not store above 25°C.

### 6.5 Nature and contents of container

Rennie Liquid Relief is supplied in:

- a 60 ml polyethylene bottle, with a polyethylene screw-cap, containing 50 ml of suspension.
- a 200 ml polyethylene bottle, with a polyethylene screw-cap, containing 150 ml of suspension.
- a 200 ml polyethylene bottle, with a polyethylene screw-cap, containing 180 ml of suspension.
- a 500 ml polyethylene bottle, with a polyethylene screw-cap, containing 500 ml of suspension.

Not all pack sizes may be marketed.

### 6.6 Special precautions for disposal

No special requirements.

## **7 MARKETING AUTHORISATION HOLDER**

Bayer Limited  
The Atrium  
Blackthorn Road  
Dublin 18  
Ireland

## **8 MARKETING AUTHORISATION NUMBER**

PA 1410/052/002

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

Date of first authorisation: 16<sup>th</sup> October 1998

Date of last renewal: 7<sup>th</sup> October 2008

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

September 2009