SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE MEDICINAL PRODUCT

BUDESONIDE PH&T 50 nasal spray, 50 micrograms/dose, suspension

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

1 ml of nasal spray suspension contains budesonide 1 mg.
One actuation delivers 50 micrograms of budesonide.

For a full list of excipients, see section 6.1

3. PHARMACEUTICAL FORM

Nasal spray, suspension
BUDESONIDE PH&T 50 nasal spray appears as a white suspension in amber-coloured bottle with assembled pump.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Management of seasonal and perennial allergic rhinitis.
Vasomotor rhinitis.
Treatment of nasal polyps.

4.2 Posology and method of administration

The medicinal product must be exclusively used by nasal route.

Seasonal and perennial allergic rhinitis, vasomotor rhinitis.

Adults and children over 6 years

Two modes of administration may be proposed:

- Once daily scheme:
  Start with one daily morning administration of Budesonide PH&T, 200 µg into each nostril. As soon as a good effect has been achieved, the dose may be reduced on a trial basis to 100 µg into each nostril in the morning.
• Twice daily scheme:
Start treatment by administration of Budesonide PH&T, 100 µg into each nostril twice daily (morning and evening). As soon as a good effect has been achieved, the dose may be reduced on a trial basis to 50 µg into each nostril twice daily (morning and evening).

**Maintenance dose:**
When a satisfactory effect has been achieved, budesonide dose should be reduced to the minimum effective dose.
The maximal daily dosage should not exceed 400 µg.

The patient should be advised that the clinical response will be delayed (some days or up to 2 weeks) before achieving clinical improvement. Concomitant treatment to control eye symptoms and nasal obstruction may be required during the initial days of treatment.

**Treatment of nasal polyps.**
The recommended dose is twice daily 200 micrograms, to be administered as 2 puffs into each nostril.

When using for the first time BUDESONIDE PH&T 50 nasal spray, the bottle should be put under pressure by:
- removing the dust-proof stopper and shaking Budesonide nasal spray,
- afterwards putting the index and middle fingers onto the wings of the spray,
- supporting the bottom with the thumb (keeping the bottle in a vertical position),
- then pressing downwards several times the wings until the product is visible.

BUDESONIDE PH&T 50 nasal spray is now ready for use.

The following operations should be performed daily:
1. To blow one’s nose.
2. To remove the dust-proof stopper.
3. To shake BUDESONIDE PH&T 50 nasal spray.
4. To put the index and middle fingers onto the wings of the spray and to support the bottom with the thumb.
5. Then to close with a finger a nostril and to introduce carefully the tip of the spray into the other nostril. To move slightly the spray outwards, then to remove it from the nasal septum and to press downwards the wings of the spray. At this point, one dose is emitted.
6. To repeat the same operation in the other nostril.
7. After the use, the dust-proof stopper should be put again in its place.

**4.3 Contraindications**

Hypersensitivity to budesonide or to any of the excipients.
4.4 Special warnings and precautions for use

The use of budesonide nasal spray is not recommended in patients with infections of the airways. Clinical monitoring of infections such as tuberculosis and neurotropic viral infections (zona, herpes) should be considered. A specific therapy should be adopted for any bacterial, viral or fungal infection of upper respiratory airways, mouth or/and eyes.

Patients should be informed that the full effect of budesonide nasal spray is achieved only after few days of treatment.

Treatment of allergic rhinitis should start before the patient is exposed to allergens. Concomitant treatment to counteract eye symptoms caused by allergy may sometimes be required.

The nasal mucosa of patients receiving long-term treatment should be examined by a physician at least once a year.

If there is no clinical response after three months of treatment, budesonide nasal spray should be stopped.

Systemic effects of nasal corticosteroids may occur, particularly at high doses prescribed for prolonged periods. Growth retardation has been reported in children receiving nasal corticosteroids at licensed doses.

It is recommended that the height of children receiving prolonged treatment with nasal corticosteroids is regularly monitored. If growth is slowed, therapy should be reviewed with the aim of reducing the dose of nasal corticosteroid if possible, to the lowest dose at which effective control of symptoms is maintained. In addition, consideration should be given to referring the patient to a paediatric specialist.

Treatment with higher than recommended doses of nasal corticosteroids may result in clinically significant adrenal suppression. If there is evidence of higher than recommended doses being used then additional systemic corticosteroid cover should be considered during periods of stress or elective surgery.

Careful attention must be given when shifting from a systemic treatment with corticosteroids to a local treatment with budesonide nasal spray (risk of reduction of the function of adrenal glands).

Withdrawal should be done with graded reduced doses until the hypothalamic-pituitary-adrenal (HPA) axis function has returned to normal. During dose reduction some patients may experience symptoms of systemic corticosteroid withdrawal, e.g. joint and/or muscular pain, lassitude and depression. If evidence of adrenal insufficiency occurs, increase the systemic corticosteroid doses temporarily and thereafter continue withdrawal more slowly.

4.5 Interaction with other medicinal products and other forms of interaction

No interaction studies have been performed. On the basis of the current experience, no interactions between budesonide nasal spray and other medicinal products are known.
4.6 **Pregnancy and lactation**

*Pregnancy*

The available data on the use of budesonide in pregnancy in women are not sufficient to evaluate the safety of the product. Foetal malformations were observed in animal studies. The relevance of these findings to humans has not been established yet. Budesonide shouldn’t be used during pregnancy unless the clinical benefits outweigh the risk.

*Lactation*

It is not known whether budesonide is secreted into the human milk. Budesonide administration is not recommended during lactation. If treatment with Budesonide PH&T is considered essential, breastfeeding could be discontinued.

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

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

4.8 **Undesirable effects**

The side effects listed below may occur with the following frequencies:

- **Very common:** $> 1/10$
- **Common:** $> 1/100 < 1/10$
- **Uncommon:** $> 1/1,000 < 1/100$
- **Rare:** $> 1/10,000 < 1/1,000$
- **Very rare:** $< 1/10,000$, including isolated reports

Respiratory, thoracic and mediastinal disorders:

- **Very common:** irritation of nasal mucosa (similar irritation and frequency was reported in placebo-treated humans. At the beginning of the treatment, nasal dripping and crusting could occur for a short time. Nasal bleeding might also occur.
- **Common:** sneezing might occur soon after initial administration; dyspnoea, hoarseness, wheezing, nasal pain.

Gastrointestinal disorders:

- **Common:** dry throat.

Skin and subcutaneous disorders:

- **Rare:** urticaria, rash, dermatitis, pruritus, angioedema

General disorders and administration site conditions:

- **Uncommon:** Candidiasis and atrophy of the mucosa could occur, in particular after a long-term therapy.
- **Very rare:** Ulcerations of the nasal mucosa and nasal septum perforation have been reported.

Some ENT (ear, nose, throat) signs may be masked when administering corticoid treatment.

Systemic effects of nasal corticosteroids may occur, particularly when prescribed at high doses for prolonged periods.
If high-doses of budesonide are recommended by the physician, possible systemic effects including adrenal suppression, growth retardation in children and adolescents, decrease in bone mineral density, signs of hypercorticism, cataracts and glaucoma cannot be excluded.

4.9 **Overdose**

No data are available on the symptoms that could occur in case of acute overdosing of budesonide nasal spray. However, acute overdosing effects are unlikely. If a high-dose use of Budesonide is recommended, a blocking effect on adrenal cortex cannot be excluded.

5. **PHARMACOLOGICAL PROPERTIES**

5.1 **Pharmacodynamic properties**

Pharmacotherapeutic group: Corticosteroids

ATC-code: R01AD05

Budesonide is a glucocorticosteroid with a strong topical anti-inflammatory effect on the nasal mucosa and weak systemic effects after topical administration.

5.2 **Pharmacokinetic properties**

Budesonide is probably completely absorbed in the digestive system. After absorption, budesonide is rapidly metabolized in the liver. After oral administration, the systemic availability of budesonide is about 10%. Budesonide metabolites have a minimal biologic activity.

Following nasal application of budesonide, peak plasma concentration is achieved after about 30 minutes.

Following inhalation of budesonide, peak plasma concentration is achieved after about 5-10 minutes.

Plasma half-life is about 2 hours.

Budesonide does not undergo local metabolization in the nasal and pulmonary mucosae.

Budesonide is highly bound to plasma proteins (86-90%), mainly to albumin.

5.3 **Preclinical safety data**

Toxicological testing in animals shows the typical effects of glucocorticoids, such as a decrease in body weight gain, adrenal and thymus atrophy, and effects on leukocyte counts.

Teratogenicity testing in rat and rabbit showed cleft palate and skeletal abnormalities, as with other glucocorticoids.
6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Sodium carboxymethylcellulose
Microcrystalline cellulose
Potassium sorbate
Glucose
Polysorbate 80
Disodium edetate
Hydrochloric acid
Purified water

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

2 years.
After first opening: 3 months.

6.4 Special precautions for storage

Do not store above 25°C.

Do not refrigerate or freeze.

Store in the original package.

6.5 Nature and contents of container

1 Type III amber glass bottle, containing 10 ml of suspension (200 puffs), with crimped polypropylene metering pump.

2 Type III amber glass bottles, containing 10 ml of suspension each (200 puffs), with crimped polypropylene metering pump.

6.6 Special precautions for disposal

Cleaning
BUDESONIDE PH&T 50 nasal spray should be cleaned on a regular basis by:
- removing the wings by pushing them upwards;
- rinsing the wings and the dust-proof stopper and leaving them to dry;
- reassembling the whole.

Any unused product should be disposed of in accordance with local requirements.
7. MARKETING AUTHORIZATION HOLDER

8. MARKETING AUTHORIZATION NUMBER

9. DATE OF FIRST AUTHORIZATION/RENEWAL OF AUTHORIZATION

10. DATE OF (PARTIAL) REVISION OF THE TEXT

October 2006