SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT
Bio-Biloba film-coated tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION
Each film-coated tablet contains 100 mg of extract (as dry extract) from Ginkgo biloba L., leaf (DER 35-67:1). Extraction solvent: acetone 60% w/w.

For full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM
Film-coated tablet.
Round, biconvex, white, film-coated tablet (12 mm).

4 CLINICAL PARTICULARS

4.1 Therapeutic indications
A traditional herbal medicinal product used to relieve the symptoms of Raynaud’s syndrome and tinnitus, based on traditional use only.

4.2 Posology and method of administration
Method of administration
Oral use.

Adults and the Elderly
One tablet to be taken twice daily, after food. Tablets should be swallowed whole with a glass of water.

The use in children or adolescents under 18 years of age is not recommended (see section 4.4 'Special warnings and precautions for use')

Duration of use
If symptoms worsen, or persist for more than 2 weeks, a doctor or qualified healthcare practitioner should be consulted.
4.3 **Contraindications**

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.

4.4 **Special warnings and precautions for use**

Do not exceed the stated dose.

The use in children and adolescents under 18 years of age has not been established due to lack of adequate data.

The product should be discontinued as a precaution 2 weeks prior to surgery since preparations containing Ginkgo might increase susceptibility to bleeding.

In patients with epilepsy or taking medicines for epilepsy, onset of further seizures – promoted by intake of Ginkgo preparations – cannot be excluded.

In patients with a pathologically increased bleeding tendency (haemorrhagic diathesis) and concomitant anticoagulant and antiplatelet treatment, the medicinal product should only be used after consultation with a doctor.

Concomitant use of *Ginkgo biloba* containing products and efavirenz is not recommended (see section 4.5).

If the symptoms worsen or persist for more than 2 weeks, a doctor or a qualified healthcare professional should be consulted.

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

If the medicinal product is taken concomitantly with anticoagulants (e.g. phenprocoumon and warfarin) or antiplatelet drugs (e.g. clopidogrel, acetylsalicylic acid and other non-steroidal anti-inflammatory drugs), their effect may be influenced.

Available studies with warfarin do not indicate that there is an interaction between warfarin and *G. biloba* products, but adequate monitoring is advised when starting, when changing *G. biloba* dose, when ending *G. biloba* intake or if changing product.

An interaction study with talinolol indicates that *G. biloba* may inhibit P-glycoprotein at the intestinal level. This may give rise to increased exposure of drugs markedly affected by P-glycoprotein in the intestine such as dabigatran etexilate. Caution is advised if combining *G. biloba* and dabigatran.

One interaction study has indicated that the Cmax of nifedipine may be increased by *G. biloba*. In some individuals, increases by up to 100% were observed resulting in dizziness and increased severity of hot flushes.
Concomitant use of *G. biloba* preparations and efavirenz is not recommended; plasma concentrations of efavirenz may be decreased because of induction of CYP3A4 (see also section 4.4).

4.6 **Fertility, pregnancy and lactation**

**Pregnancy**

*G. biloba* extracts may impair the ability of platelets to aggregate. The tendency for bleeding may be increased. Animal studies are insufficient with respect to reproductive toxicity (see section 5.3). The use is in pregnancy is not recommended.

**Lactation**

It is unknown whether *G. biloba* metabolites are excreted in human milk. A risk to the newborns/infants cannot be excluded. In the absence of sufficient data, the use during lactation is not recommended.

**Fertility**

No specific studies with *G. biloba* in humans have been conducted to evaluate effects on fertility. In a study in female mice effects on fertility were seen (see section 5.3).

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

No adequate studies on the effect on the ability to drive and use machines have been performed. Dizziness has been reported with Ginkgo. Affected patients should not drive or use machines.

4.8 **Undesirable effects**

Bleeding of individual organs has been reported (eye, nose, cerebral and gastrointestinal haemorrhage).

Gastrointestinal disorders, headaches, dizziness and allergic reactions have been reported. The frequency is not known.

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

**Reporting of suspected adverse reactions**

Reporting suspected adverse reactions after authorization 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: www.mhra.gov.uk/yellowcard

4.9 Overdose
No case of overdose has been reported.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties
Not required as per Article 16c(1)(a)(iii) of Directive 2001/83/EC as amended.

5.2 Pharmacokinetic properties
Not required as per Article 16c(1)(a)(iii) of Directive 2001/83/EC as amended.

5.3 Preclinical safety data
Adequate tests on reproductive toxicity, genotoxicity and carcinogenicity have not been performed.

Reproductive toxicity
Only limited information is available on reproductive toxicity of the Ginkgo biloba dry extract. The published data are contradictory. While an older study in rats and rabbits and a newer study in mice revealed no teratogenic, embryotoxic or adverse reproductive effects, another study in mice showed effects on reproductive parameters, such as fertility and reproductive performance and it evoked vaginal bleeding. Also tests with unspecified or slightly different Ginkgo extracts pointed towards effects on fetal development (with and without maternal toxicity) or caused subcutaneous bleeding, hypopigmentation, growth inhibition and anophthalmia in chicken embryos.

Mutagenicity, carcinogenicity
A similar extract was tested in a series of studies for genotoxicity and carcinogenicity. It was positive for gene mutation in bacteria. A peripheral mouse erythrocytes micronucleus test provided a negative result in male and an equivocal result in female animals.

The thyroid gland tumours found in a rat carcinogenicity study and hepatocellular carcinoma found in a mouse carcinogenicity study are considered rodent specific, non-genotoxic response associated (with long-term treatment) with high doses of hepatic enzyme inducers. These types of tumours are not considered relevant to humans. The extract did not induce measurable genotoxic effects in mice up to 2000 mg/kg.
6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients
- Tablet core
  - Microcrystalline cellulose
  - Silica, colloidal anhydrous
  - Talc
  - Magnesium stearate

- Film coating
  - Hypromellose
  - Talc
  - Titanium dioxide (E171)

6.2 Incompatibilities
- Not applicable

6.3 Shelf life
- 3 years

6.4 Special precautions for storage
- Do not store above 25°C. Keep blisters in the outer carton to protect from light.

6.5 Nature and contents of container
- PVC/PVdC blisters with aluminium foil backing in cardboard outer.
- Each pack contains 60 or 150 tablets in 30-tablet blister trays.
- Not all pack sizes may be marketed.

6.6 Special precautions for disposal
- No special requirements.
  - Any unused medicinal product or waste material should be disposed of in accordance with local requirements.
MARKETING AUTHORISATION HOLDER
Pharma Nord ApS
Tinglykke 4-6
DK-6500 Vojens
Denmark

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