1. NAME OF THE MEDICAL PRODUCT
HEPATITIS B VACCINE, RECOMBINANT

2. QUALITATIVE AND QUANTITATIVE COMPOSITION
1 ml of vaccine contains:
- Active ingredient: Purified HBsAg 20 µg
- Adjuvant: aluminium Hydroxide Gel (as aluminium) 0.5 mg
- Preservative: Thimerosal 0.01% w/v
- Excipients: Potassium phosphate, monobasic, Sodium phosphate, dibasic, Sodium chloride.

No substances of human origin are used in its manufacture.

3. PHARMACEUTICAL FORM
Vaccine: suspension for injection.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications
   Immunization against infection caused by all known subtypes of Hepatitis B virus.

4.2 Posology and method of administration
   For intramuscular use only.
   - One paediatric dose (neonates, infants, and children aged up to and including 15 years of age) is 0.5 ml containing 10 µg of HBsAg.
- One adult dose (from 16 years) is 1.0 ml containing 20 µg of HBsAg.

The immunization regimen consists of three doses of vaccine given according to the following schedule:

- 1st dose: at elected date
- 2nd dose: 1 month after the first dose
- 3rd dose: 6 months after the first dose

Booster vaccination: the WHO does not recommend booster vaccination, as it has been shown that 3 dose series of hepatitis B immunization protects for as long as 15 years, and that a protective anamnestic response occurs after exposure to HBV, even if protective antibodies have been lost over time. However, some local vaccination programmes worldwide currently include a recommendation for a booster dose, and these should be respected.

An alternative 0, 1, and 2 months schedule and a 12 months booster can be used in certain populations (e.g. neonates born from Hepatitis B – infected mothers, someone who has or might have been recently exposed to the virus, certain travelers to high – risk areas).

Infants born to HBsAg – positive mothers should receive the initial dose of Hepatitis B vaccine within 12 hours of birth and addition of Hepatitis B immune globulin (HBIG) at birth to the vaccine schedule is recommended to improve efficacy in preventing HBV infection.

Hepatitis B vaccine can be given safely and effectively at the same time (i.e. in two different sites) with BCG, DTP, measles, oral or inactivated polio, Hib or yellow fever vaccines.

Additional dose (S) of vaccine may be required in hemodialysis or immunodeficient patient since protective antibody titer (> 10 IU/L) may not be obtained after the primary immunisation course.

4.3 Contraindication

Hepatitis B vaccine is contraindicated for use in persons with hypersensitivity to any component of Hepatitis B vaccine.

4.4 Special warnings and precautions for use

General precautions:

- The administration of Hepatitis B vaccine should be postponed in patients suffering from acute severe febrile illness.
- In patients suffering from multiple sclerosis, any stimulation of the immune system can induce exacerbation of their symptoms. Therefore, for these patients the benefits of vaccination against Hepatitis B should be weighed against the risk of exacerbation of multiple sclerosis.

- It is considered that protection can not be obtained by vaccination in patients in latent or progressive state of Hepatitis B.

- As with all injectable vaccines, appropriate medical treatment should always be readily available in case of rare anaphylactic reactions following the administration of the vaccine.

Precautions of usage

- Shake before administration, since a fine white deposit with a clear colorless supernatant may form during storage.

- Hepatitis B vaccine should not be administered in the gluteal region and it must not be administered intravenously.

4.5 Interaction with other medical products and forms of interaction

Hepatitis B vaccine can be given safely and effectively at the same time (i.e. in two different sites) with BCG, DTP, measles, oral or inactivated polio, Hib or yellow fever vaccines.

4.6 Pregnancy and lactation

- The effect of the HBsAg on foetal development has not been assessed. However, as with all inactivated viral vaccines, the risks to the foetus are considered to be negligible. Hepatitis B vaccine should be used during pregnancy only when clearly needed.

- The effect on breast – fed infants of the administration of Hepatitis B vaccine to their mothers has not been evaluated in clinical studies. No contraindication has been established.

4.7 Effects on the ability to drive and use machines

NA

4.8 Undesirable effects

Common

- Local reactions such as erythema, pain, swelling or minor fever may rarely occur; these symptoms disappear in 2 days.
Rare
- Hyperthermia (above 38.8 °C)
- Systemic reactions such as malaise, asthenia, headache, nausea, vomiting, dizziness, myalgia, arthritis.
- Skin rash and transient increase of transaminases.

Very rare:
- A causal sequence of cause and effect could not be established for reports of multiple neuritis, optic neuritis, facial paralysis, exacerbation of multiple sclerosis, and Guillain – Barré syndrome.

4.9 Overdose

NA

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

NA

5.2 Pharmacokinetic properties

NA

5.3 Preclinical safety data

NA

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Potassium phosphate, monobasic, Sodium phosphate, dibasic, Sodium chloride

6.2 Incompatibilities

NA

6.3 Shelf life

3 years
6.4 Special precautions for storage

Store between +2 °C and +8 °C (in a refrigerator)

Do not freeze.

6.5 Nature and contents of container

Container of bulk vaccine: Nalgene bottle.

6.6 Special precautions for disposal and other handling

NA

7. MARKETING AUTHORISATION HOLDER

Government Pharmaceutical Organization – Mérieux Biological Products Co., Ltd.

8. MARKETING AUTHORISATION NUMBER(S)

1B 1/45

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

15 March 2002

10. DATE OF REVISION OF THE TEXT

April 2011