SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE MEDICINAL PRODUCT:

Product Name: Purified Diphtheria Toxoid, Purified Tetanus Toxoid, Whole cell Pertussis, Recombinant Hepatitis B, *Haemophilus influenzae* Type b Conjugate and Inactivated Poliomyelitis Trivalent Vaccine (Adsorbed) [DTwP-HepB-Hib-IPV].

Brand Name : EasySix™

Strength: One pediatric dose is 0.5 ml

Pharmaceutical Form: Injectable Vaccine

2. QUALITATIVE AND QUANTITATIVE COMPOSITION:

Qualitative and quantitative composition for EasySix™ vaccine is as given in table below:-

Single paediatric dose of 0.5 ml contains:

Ingredients	Quantity per dose of 0.5 ml
Diphtheria Toxoid	≥ 30 IU
Tetanus Toxoid	≥ 60 IU
Inactivated Whole cell Pertussis	≥ 4 IU
r Hepatitis B surface Antigen	≥ 10 µg
H. influenzae type b conjugated (PRP-TT)	10 µg
Inactivated Salk Polio Virus Type 1 *	40 DU
Inactivated Salk Polio Virus Type 2 *	8 DU
Inactivated Salk Polio Virus Type 3 *	32 DU
Aluminium content (Al^{3+}) (as Aluminium Phosphate gel)	NMT 1.25 mg
2-phenoxyethanol	3.3 mg
Physiological saline	q.s.
* Bulk source: Bilthoven Biologicals B.V. Netherlands; Cell substrate: Vero cells	

SUMMARY OF PRODUCT CHARACTERISTICS

3. PHARMACEUTICAL FORM

The final product has an appearance of a pink to light pink to off-white, suspension in which the mineral carrier (aluminum phosphate gel) tends to settle down slowly on keeping.

4. CLINICAL PARTICULARS:

4.1 Therapeutic indications:

Easy Six Vaccine is administered by injection to infants and toddlers starting from the age of 6 weeks. It is usually given at 6, 10, and 14 weeks followed by a booster dose in the second year of life. If the child does not get all the doses, he/she will not be fully protected against against diphtheria, tetanus, pertussis, hepatitis B, poliomyelitis and severe infection caused by *Haemophilus influenzae* type b.

4.2 Posology and method of administration:

One paediatric dose is of 0.5 ml. The vaccine should be well shaken to get a uniform suspension before use. The site of injection should be prepared with a suitable antiseptic. The vaccine should be administered by intramuscular route. The preferred injection site for infants is antero-lateral aspect of thigh. Do not inject intravenously or subcutaneously.

4.3 Contraindications:

Hypersensitivity to the active substances, to any of the excipients, to any pertussis vaccine, or after previous administration of the vaccine or a vaccine containing the same components or constituents.

Generally vaccination must be postponed in cases of moderate or severe febrile and/or acute disease. The presence of a minor infection and/or low-grade fever does not constitute a contraindication.

The vaccination with EasySix™ is contraindicated if the infant has experienced an encephalopathy of unknown aetiology, occurring within 7 days following previous vaccination with pertussis containing vaccine. In these circumstances pertussis vaccination should be discontinued and the vaccination course should be continued with diphtheria-tetanus, hepatitis B, polio and Hib vaccines.

Uncontrolled neurologic disorder or uncontrolled epilepsy: Pertussis vaccine should not be administered to individuals with these conditions until the treatment regimen has been established, the condition has stabilized and the benefit clearly outweighs the risk.

4.4 Special warnings and precautions for use:

EasySix™ vaccination should be preceded by a review of the medical history (especially with regard to previous vaccination and the possible occurrence of undesirable events) and a clinical examination.

If any of the following events occur in temporal relation to the administration of **EasySix™ vaccine** the decision to give subsequent doses of vaccine containing the pertussis component should be carefully considered:

- Temperature of ≥40.0 ˚C within 48 hours, not due to another identifiable cause
- Collapse or shock-like state (hypotonic-hypo responsive episode) within 48 hours
- Persistent crying lasting >3 hours, occurring within 48 hours
- Convulsions with or without fever, occurring within 3 days.

A history of febrile convulsions, a family history of convulsions, a family history of SIDS (Sudden Infant Death Syndrome) or a family history of an adverse event following EasySix™ vaccination does not constitute contra-indications.

HIV infection is not considered as a contra-indication for diphtheria, tetanus, pertussis, hepatitis B, Hib and polio vaccination. The expected immunological response may not be obtained after vaccination of Immunosuppressed patients, e.g. patients on immunosuppressive therapy.

As with all injectable vaccines, appropriate medical treatment should always be readily available in case of anaphylactic reactions following the administration of the vaccine. For this reason, the vaccine should remain under medical supervision for 30 minutes after vaccination.

EasySix™ vaccine should under no circumstances be administered intravenously or subcutaneously.

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

EasySix™ may be co-administration with another vaccine is considered, immunization should be carried out on separate injections sites.

EasySix™ must not be mixed with any other vaccines or other parenterally administered medicinal products. The immunological response of the vaccine may be reduced in patients undergoing therapy with corticosteroids or immunosuppressant.

4.6 Pregnancy and lactation:

Not Applicable, as EasySix™ vaccine is not intended for use in adolescent and adult population.

4.7 Effects on ability to drive and use machines:

Not Applicable, as EasySix™ is not intended for use in adult.

4.8 Undesirable effects:

In a randomized clinical study of EasySix™ (Panacea Biotec Ltd) with comparator pentavalent co-administered with Inactivated Polio Vaccine (IPV) vaccine in healthy infants following adverse events were reported.

Local symptoms like pain / tenderness, redness and swelling may be observed after the administration of the vaccine. A small lump may occasionally be noted in the site of the inoculation that disappears after few days.

Systemic symptoms observed include the fever, drowsiness, irritability, persistent crying, loss of appetite, and vomiting.

These symptoms were resolved within 48 hours after vaccination.

4.9 Overdose:

Not Applicable, as EasySix™ vaccine is administered as per the pediatric immunization schedule under the direct supervision of physicians.

4.10 Abuse and addiction: Not applicable

5. PHARMACOLOGICAL PROPERTIES:

5.1 Pharmacodynamic properties:

Immunogenicity of EasySix™ vaccine was evaluated in 6, 10, 14 weeks schedule (3 doses given at 4 weekly intervals). The seroprotection rates/ immune responses for the all components of the vaccine after 1 month completion of 3-dose primary vaccination schedule were as follows: Anti-diphtheria, anti-tetanus and anti-HBsAg seroprotection rate was 94.85%, 100% and 97.79%, respectively. The anti-PRP seroprotection rate was 100% for short term and 92.65% for long term protection. The pertussis IgG and anti-PT response rate was 75.74% and 68.38%, respectively. The seroconversion rate against polio type 1, type 2 and type 3 was 89.71%, 93.38% and 88.24%, respectively.

ATC (Anatomical Therapeutic Classification) Code of Hexavalent vaccine is J07CA09.

Clinical Studies:

The safety and efficacy of EasySixTM vaccine has been evaluated in 6, 10, 14 weeks schedule (3 doses given at 4 weeks intervals) and concluded that EasySix™ of Panacea Biotec Ltd. is safe, immunogenic and non- inferior to Pentavac SD® co-administered with Imovax Polio® one month after three dose

5.2 Pharmacokinetic properties:

Not Applicable.

5.3 Preclinical safety data:

Panacea Biotec manufactured the combination vaccines i.e. EasySix™ (DTwP-HepB-Hib-IPV), hexavalent vaccine by utilizing the Diphtheria toxoid, Tetanus toxoid, Inactivated whole cell B. pertussis, Purified capsular polysaccharide (PRP) from Haemophilus influenzae type b conjugated to tetanus toxoid, Hepatitis B surface antigen from Panacea Biotec Ltd., Lalru and Inactivated Poliomyelitis viruses (Salk strains)Type 1, 2 & 3 from Bilthoven Biologicals B.V.

All the Six individual components i.e. Inactivated whole cell B. pertussis, Purified capsular polysaccharide (PRP) from Haemophilus influenzae type b conjugated to tetanus toxoid, Hepatitis B surface antigen manufactured by PanEra Biotec Pvt. Ltd., Lalru are well established one and proven to be safe, as, same are being used successfully since last many decades in immunization history and Inactivated Poliomyelitis viruses (Salk strains) Type 1, 2 & 3 procured from M/s Bilthoven Biologicals B.V is safe.

Based on the single dose and repeat dose toxicity studies in Balb/c mice and New Zealand white rabbits, EasySix™ vaccine (DTwP-HepB-Hib-IPV) did not show any adverse effect when administered either as single dose or repeated injection by intramuscular route.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients:

- Aluminum phosphate gel
- 2 - phenoxyethanol
- Physiological saline

6.2 Incompatibilities:

The vaccine should not be mixed in the vial or syringe with any other vaccine.

6.3 Shelf life:

24 months from the date of manufacturing, when stored at 5°C ± 3°C.

6.4 Special precautions for storage:

The vaccine should be stored and transported at temperature between 5 ± 3°C until the expiry date indicated on the Pre Filled Syringe (PFS) or Vial label/pack. The vaccine must not be frozen.

Multi-dose vials of EasySix™ from which one or more doses of vaccine have been removed during an immunization session may be used in subsequent immunization sessions, for up to a maximum of 28 days provided that all of the following conditions are met (as described in the WHO policy statement: Handling of multi dose vaccine vials after opening, WHO/IVB/14.07):

- The vaccine is can be used upto 28 days after opening the vial as approved by WHO.
- The expiry date of the vaccine has not passed
- The vaccine vial has been and continue to be stored at the recommended temperatures; furthermore, the vaccine vial monitor, if one is attached, is visible on the vaccine label and is not past its discard point and the vaccine has not been damaged by freezing.

6.5 Nature and contents of container:

EasySix™ vaccine is filled in single dose (0.5 ml) and four doses (2.0 ml) presentations in USP Type 1 glass vial and stoppered with rubber stopper and sealed with flip off aluminium seal.

EasySix™ vaccine is also filled in single dose Pre-filled syringe of USP type 1 glass containing 0.5 ml vaccine stoppered with plunger stopper.

6.6 Special precautions for disposal and handling:

Vaccine in pre-filled syringe:

Prior to administration, the pre-filled syringe should be shaken in order to obtain a homogeneous, suspension. The suspension should be visually inspected prior to administration. In the event of any foreign particulate matter and/or variation of the physical aspect being observed, discard the pre-filled syringe. For syringes without an attached needle, the needle must be fitted firmly to the syringe, rotating it by a one-quarter turn. Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

Vaccine in Vials:

Prior to administration, the vial should be shaken in order to obtain a homogeneous, suspension. The suspension should be visually inspected prior to administration. In the event of any foreign particulate matter and/or variation of the physical aspect being observed, discard the vial. A dose of 0.5 ml is withdrawn using a syringe for injection. Any unused medicinal product or waste material should be discarded of in accordance with local requirements.

7. CONDITIONS FOR PRESCRIPTION AND DISPENSING:

Not Applicable

8. MARKETING AUTHORIZATION HOLDER:

Panacea Biotec Ltd.
Malpur, Baddi, Distt Solan,
Himachal Pradesh – 173205, India
Tel.: 01795-674036
E-mail: corporate@panaceabiotec.com
Website: https://www.panaceabiotec.com

9. MARKETING AUTHORIZATION NUMBER(S):

License No. : MB/07/632

10. DATE OF FIRST AUTHORIZATION/ RENEWAL OF THE AUTHORIZATION:

The details of the manufacturing authorization certificates obtained from Licensing Authority, India for EasySix™ vaccine manufactured at Vaccine Formulation Plant (VFP), Baddi, and Himachal Pradesh, India are as mentioned below:

- Date of first authorization: 02.01.2017
- Renewal of the authorization: granted on September 29, 2017 valid up to 28.09.2022.
- Retained up to 28.09.2027