Ethiopian Food and Drug Authority

Guideline for Registration of Insecticide Treated Net

August 2021

Addis Ababa, Ethiopia

Acronyms and Abbreviation

AI	Active Ingredient
CA	Chemical Abstract
CTD	Common Technical Document
CoA	Certificate of Analysis
EFDA	Ethiopian Food and Drug Authority
ITN	Insecticide Treated Net
IUPAC	International Union of Pure and Applied Chemistry
JMPR	Joint Meeting on Pesticide Residues
LN	Long-lasting Net
WHO	World Health Organization

Table of Contents

1. Introduction

The government of Ethiopia has implemented an eradication and elimination program to comprehensively interrupt transmission of the malaria disease. In the past years, mortality and morbidity from malaria has declined dramatically. The use of insecticide treated nets is crucial.

The insecticides that are used for treating nets will kill or repel mosquitoes, as well as other insects. Insecticide-treated nets (ITNs) are a form of personal protection that has been shown to reduce malaria illness, severe disease, and death due to malaria in endemic regions.

The Ethiopian Food and Drug Authority (EFDA) is responsible to ensure the safety, quality and efficacy of the ITN. Dossiers of the ITN should be submitted to the Authority and reviewed the comprehensive scientific data demonstrating compliance of the safety, quality and efficacy parameters.

Therefore, this Guideline for Registration of Insecticide Treated Net is prepared in accordance with the Food and Medicine Administration Proclamation No. 1112/2019 to guide applicants during the submission of dossiers for registration.

2. Definitions

In this guideline, the following definitions applies:

1) "**Public health pesticide''** means any substance or mixture of substances used to prevent, control or destroy pests to protect human health and includes insecticide-treated nets.
2) **"Active Ingredient (AI)"** means a substance or compound that is intended to be used in the manufacture of public health pesticides as an active part of the pesticide present in a formulation.
3) **"Insecticide-treated net"** means conventionally treated and re-treatable net or long-lasting net (LN).
4) **"Insecticide treated net registration"** means the process whereby the EFDA approves the sale and use of ITN following the evaluation of comprehensive scientific data demonstrating that the product is effective for its intended purposes and does not pose an unacceptable risk to human health or the environment.
5) **"Registration dossier"** means the set of data that is submitted by applicants, in a structured manner, in support of their application for registration.
6) **"Risk"** means function of the probability of an adverse health or environmental effect, and the severity of that effect, following exposure to a pesticide
7) **"Application"** Means the process of officially requesting a regulatory authority to register public health pesticides.
8) **"Labelling"** means information written or printed or graphic matter on the immediate or outer packaging and any form of leaflets including user information leaflet and product safety summary;
9) **"Recall"** means the process of removal or withdrawal of public health pesticides from all distribution channels taken by the company or person responsible for placing the products in the market.
10) **"Authority"** means the Ethiopian Food and Drug Authority.

3. General principles

This insecticide treated net shall not be put for use for the public unless it is being registered by the Authority. The net impregnated with insecticide should be registered after being evaluated for efficacy, safety and quality which are tested under field or laboratory conditions. Any manufacturer who wants to register those shall have a local agent in Ethiopia and creates an official agreement with the agent.

The rigor of regulatory requirement and assessment of the insecticide treated net shall be commensurate with the product type, nature, and potential inherent risks to human health. Furthermore, the Authority may accept the registrations authorization by Stringent Regulatory Authority (SRA), WHO prequalification (collaboration scheme), use of risk assessments, joint assessment and mutual acceptance of data.

4. Scope

This guideline is applicable to the registration of insecticide treated nets.

5. Objective

To protect the public health from health risks emerging from exposure to unsafe and poor quality insecticide treated nets. In addition, the guideline sets requirements to guide suppliers in registering their products.

6. Requirements for Registration of insecticide treated nets (ITNs).

Module 1: Administrative and Product labelling

The following documents shall be submitted during application for registration

1. Cover letter

Ensure that the request is clearly stated. Dated and signed letter for submission of the dossier by mentioning the product including product description, the name and strength of insecticide impregnated on the net, the manufacturer and the local agent names and addresses.

2. Application form

Filled application form as indicated in **annex I** of this Guideline shall be submitted. The application form provided shall be signed and dated by the responsible applicant. The application form should include product description, identification of manufacturing sites, and registration status and uses (list of countries where the net is currently approved, under review, or intended to be submitted for approval).

3. Agency Agreement

All manufacturers who import or offer to import into the Ethiopian market must identify a local agent or local representative to start the registration process. The local agent or local representative must be physically located in Ethiopia and will serve as a point of contact between EFDA and the manufacturers. If the product is manufactured in Ethiopia, the manufacturer can apply directly for registration.

The agreement should be signed by both parties and such is what is to be presented. The seal/stamp of both parties should also be affixed to the document for agency agreement.

The agreement should state that if any fraud or unsuspected and unacceptable adverse event occurs to the consumer under normal utilization, all the parties (local agents, manufacturer, and/or license holder) mentioned in the agreement will be responsible for collecting the product from the market (i.e. recall the product) and will be responsible for substantiating any related consequences.

4. Manufacturing Authorization Certificate

A Copy of valid Good Manufacturing Practice (or relevant ISO certification) from country of origin or any other regulatory agency and international organization such as WHO or certifying bodies and Manufacturing License Certificate of the

manufacturer issued by the countries of origin.

5. **Evidence of Registration**

A valid certificate of marketing authorization in the country of origin or any regulatory agency other than the country of origin should be provided.

If the product is pre-qualified by the World Health Organization (WHO), such evidence of pre-qualification should be provided. Applicants shall submit a consent letter for declaration of sameness and commitment to submit any variations to the prequalified ITN before made available for use.

6. **Labelling**

Product labelling should be provided. The labelling information is required to be in English and/or Amharic. Any information appearing in the product labelling should be based on scientific justification. The labelling information should contain:

- Name of the product: brand and common or generic name/INN,
- Qualitative and quantitative composition of insecticide treated nets.
- Technical direction for use,
- Warnings and precautions,
- Safety period,
- First aid and other emergency procedures in case of accidental exposure, ingestion, inhalation, skin contact or poisoning,
- Description of the symptoms of human poisoning and a note to the physician,
- Antidote (if any),
- Harmful effects on non-target species,
- Handling and storage instructions,
- Warning against the re-use of containers,
- Symbols and pictograms including WHO classification in words;
- Method of disposal for the used containers and the product itself,
- Quantity in the container (packing),
- Batch number,
- Manufacturing and Expiry date,
- Country of origin, and
- Name and address of manufacturer.

7. **Evidence for an application fee**

Each application should be accompanied by a relevant service fee for registration. Applicants are advised to consult the current Rate of Service Fees Regulation of the Authority for the amount to be paid for application and contact the Authority for details of mode of payment.

Module 2: Discipline summaries

The discipline summary should outline the conclusions of the data provided in:

- summary of Quality Dossier
- Summary of Safety Dossier
- Summary of Efficacy Dossier

Module 3: Quality Information

Detailed information on insecticide treated nets shall be provided as per the requirements described below. Applicants are also advised to consult WHO guidelines for specifications for pesticides to determine product specific physical/chemical data requirements per formulation type.

1. **Active Ingredients**

Applicant should provide the following data about the identity of active ingredients, synergists and other chemicals if any used (e.g. Pyrethroid, piperonyl butoxide, deltametrin and others as justified):

- Source of the active ingredient (Manufacturers full name and site address),
- Generic or common name proposed or accepted by ISO (ISO English, (E-ISO) common name) and status,
- Any other common name or synonym,
- Chemical name (IUPAC and CA),
- Structural formula including empirical formula and molecular weight;
- Isomeric composition, if appropriate,
- Chemical group,
- Molecular formula, and
- Relative molecular mass

The specification for the ITN should be provided. Copies of the insecticide specifications should be dated and signed by authorized personnel (e.g., the person in charge of the quality control or quality assurance department) should be provided in the dossier.

The specification should be summarized in tabulated form under the headings tests, acceptance criteria, and analytical procedures (including types, sources, and versions for the methods). The justification for the specifications should also be indicated.

All supporting data or information on the physical and chemical properties of active ingredient (insecticide impregnated on the net) should be submitted and include:

- Organoleptic properties (appearance, physical state, colour, odour etc);
- Melting/Decomposition/Boiling points,
- Vapor pressure,
- Solubility in water and organic solvents,
- Partition coefficient between water and an appropriate non-miscible solvent (e.g. n-octanol) or Octanol-water partition coefficient,
- Temperature of decomposition,
- Acid/Base dissociation characteristics, if appropriate,
- Hydrolysis, photolysis and other degradation characteristics,
- Absorption spectra, e.g. ultra-violet, visible, infra-red, etc,.
- The minimum (and maximum) active ingredient content in g/kg or g/l,
- Identity and amount of isomers, impurities and other by- products, together with information on their possible range expressed as g/kg,.
- Density (for liquid only),
- Bulk density,
- Flammability: liquids-flashpoint; solids-a statement must be made as to whether the product is flammable,
- pH,
- Wettability (for dispersible powder),
- Persistent foam formation (for formulations to be applied in water),
- Suspensibility (for dispersible powders and suspension concentrates),
- Dry sieve test (for granules, dusts),
- Wet sieve test (for dispersible powders and suspension concentrates); and
- Corrosiveness

The analytical procedures used for testing the active ingredient (insecticide) should be provided. The provided analytical procedures should be detailed enough to repeat the analysis by other laboratories.

Description of batches and results of batch analyses for at least three batches of the active ingredients should be provided. The information provided should include batch number, batch size, date and production site.

2. Description of netting materials requirement

Netting materials used for mosquito nets include polyester, polyethylene, nylon (polyamide) and cotton. Other materials such as polypropylene and new materials or mixed fibres may be used. Polyester and polyethylene have many advantages over cotton: they are more durable, give more ventilation and there is less insecticide loss within the fibres. They are usually cheaper, obtainable in larger consignments, have better quality control and are more popular. Polyethylene with 100 denier which is equivalent to polyester 75 denier is the minimum requirement. The specification of netting materials is indicated in Annex 2.

3. Product information

A description of the insecticide treated net and its composition should be provided. The information provided should include: Description of the net, composition of the net (the fabric, the impregnated pesticide, presentation of the net, etc.).

4. Formulation and manufacturing process

Applicant should provide information on declaration of product formulation (Composition):

- The complete formula must be provided.
- Complete quantitative and qualitative composition of the formulated insecticide (both active and inactive ingredients); including quality specifications or requirements and control methods should be provided.
- Sources of active ingredients must match those identified on the declaration of manufacturing sites to verify intermediary distributors.

Applicant shall provide information on description of manufacturing process

- Ensure to describe the complete production process including description of chemical reactions (if applicable).
- Concise description of the method of preparation of the formulated pesticide mentioning the quality and quantity of each ingredient (both active and inactive ingredients) used including the final packaging and labelling.

- Description on the precautions and in-process controls that are made in connection with different stages in the insecticide manufacturing process, that are of importance in ensuring the quality of the formulated insecticide

The manufacturer must state whether the active ingredient is incorporated within the filament polymer in the spinning process, or is incorporated into a polymer applied to the outside of filaments; or is applied/incorporated in some other way.

5. Manufacturing site Declaration

The name, address, and responsibility of each manufacturing site including testing site should be provided and declared.

6. Specification and Method of Analysis

The specification and methods of analysis of insecticide treated net should be provided. Copies of the insecticide treated net specification(s) and methods of analysis should be dated and signed by authorized personnel (i.e., the person in charge of the quality control or quality assurance department).

The quality specifications (requirements) of the insecticide treated net should include at least the following test parameters wherever they are applicable:

- Description of the product
- Content of the active ingredient and nature of fabric
- Identification of the active ingredient
- Relevant impurities, if any
- Physical/Chemical properties of the insecticide treated net
- Storage stability (Residual content and physical properties)
- Durability (Related to fabric/net)

Laboratory testing to determine regeneration and wash resistance test should be included for long lasting insecticide treated nets.

Applicants should refer to annex 2 and 3 for the acceptance criteria for netting and efficacy requirement. However, applicants are advised to refer to the respective WHO guidelines for laboratory and field study; and other specific acceptance criteria on parameters to be considered in the specification of the proposed product.

7. Batch Analysis

Description of batches and results of batch analyses for at least three batches of the insecticide treated net should be provided. The information provided should include batch number, batch size, date and production site.

Furthermore, applicants should submit a certificate of analysis (CoA) on the proposed product conducted by an independent certified laboratory in Ethiopia.

8. **Stability and storage condition**

Data to support the duration of use of insecticide treated net should be provided. The supporting data should mainly focus on the efficacy data of the net on the proposed use conditions considering the possible numbers of washes during the period of use under the field study. In addition, test results for active ingredient retention/release index in washing and storage stability should be considered.

Storage stability data includes:

- Concentration of active ingredient
- Wash resistance index
- Dimensional stability
- Bursting strength

Module 4: Safety information

The applicants should describe in detail the safety profile of the insecticide treated net and submit as one section of the dossier.

The supporting information to be submitted under safety dossier includes the following:

- Active ingredient Specific Hazard Assessment (or summary of publicly available information citing the safety profile), exposure and risk assessment of the product from SRA or JMPR if any.
- Product Risk Assessment (Occupational and Residential Exposure)
- Description of acute toxicology information including acute inhalation, acute oral, acute dermal, primary eye irritation, primary skin irritation and dermal sensitization.
- Environmental Risk assessment: A table summarizing the acute ecotoxicology study endpoints (based on studies or estimates) of the formulation or cross reference with the efficacy module if clearly described there.

Module 5: Efficacy information

The applicant should submit the efficacy section of the dossier that includes assessment of data on laboratory studies, semi field and field studies.

The applicant should submit detailed data generated through appropriate efficacy trials on the insecticide treated net to be registered. The efficacy assessment data should indicate the following:

- Laboratory and operational field-tests (e.g. knock down, re-generation, wash resistance)
- Dose efficacy relationships
- Level, duration and residual effect
- Compatibility with other chemical control measures
- Information on use

The applicant should submit entomological efficacy data for those products that need entomological efficacy study.

Module 6: Inspection information

The applicant should provide the status of the GMP certification or relevant ISO compliance issued by WHO or SRA or any independent ISO certifying organization and licensing authorization of the regulatory agency of the country of origin. Refer to the administrative information section of this guideline.

7. Assessment Procedure

For WHO prequalified INT, applicants shall submit the product dossier (PD) in the above format indicated in “section 1: the requirements for registration of ITN” which is the same as what has been submitted for WHO-PQP prequalification to EFDA for verification. At the time of submission, the applicant should provide information of any variations awaiting acceptance of WHO prequalification, if any. The same applies for ITN approved by SRA, if any.

However, for those applications that are not prequalified by WHO and not approved by SRA, complete product dossiers shall be submitted and a rigorous assessment scheme will be conducted by EFDA.

Annex 1: Application Form

1. Manufacturer information

1.1 Legal Manufacturer

1.1.1 Company (name of manufacturer)	Click here to enter text.	
1.1.2 Manufacturer physical address	Street Name and No.: Click here to enter text.	
	City: Click here to enter text.	
	Postcode: Click here to enter text.	Country: Click here to enter text.
1.1.3 Manufacturer postal address	Street Name and No.: Click here to enter text.	
	Postal Office Box No.: Click here to enter text.	
	City: Click here to enter text.	
	Postcode: Click here to enter text.	Country: Click here to enter text.
1.1.4 Manufacturer telephone	Click here to enter text.	
1.1.5 Manufacturer e mail & web address	Click here to enter text.	
1.1.6 Name of parent company, if any	Click here to enter text.	

1.2. Authorized contacts for the manufacturer

1.2.1 Name of authorized contact	Click here to enter text.	
1.2.2 Contact's job title/position	Click here to enter text.	
1.2.3 Authorized contact postal address	Department: Click here to enter text.	
	Street Name and No.: Click here to enter text.	
	City: Click here to enter text.	
	Postcode: Click here to enter text.	Country: Click here to enter text.
1.2.4 Authorized contact telephone	Fixed line: Click here to enter text.	Mobile phone: Click here to enter text.
1.2.5 Authorized contact e mail	Click here to enter text.	

2. PRODUCT IDENTIFICATION SUMMARY (PIS)

2.1 Summary of product information

2.1.1 Non-proprietary name(s) of the product	Click here to enter text.

2.1.2 Proprietary name(s) of the product	Click here to enter text.
2.1.3 International non-proprietary name(s) of the active ingredient(s)	Click here to enter text.
2.1.4 AI Strength(s)	Click here to enter text.
2.1.5 Product type	Click here to enter text.
2.1.6 Formulation type	Click here to enter text.
2.1.7 Vector borne disease(s) intended to be controlled	Click here to enter text.
2.1.8 Description of Vector Intended to be Controlled	Click here to enter text.
2.1.9 Supporting JMPS Specification	Click here to enter text.

2.3 Description of Product Packaging

_____
_____
_____

2.4 Manufacturing

2.4.1 Active Ingredients and Synergists

Active Ingredient #1

Name of AI:			
Manufacturer	Address (including block(s)/unit(s))	Supporting JMPS Specification	Letter of access provided?
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

Active Ingredient/Synergist #2 (Replicate table for additional AIs or synergists)

Name of AI:			
Manufacturer	Address (including block(s)/unit(s))	Supporting JMPS Specification	Letter of access provided?
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

2.4.2 End Use Vector Control Product

Provide Name, address and responsibility (e.g. fabrication, packaging, labelling, testing, manufacture of netting) of each manufacturer, including contractors and each proposed production site or facility involved in these activities:

Company	Address (including block(s)/unit(s))	Responsibility	Letter of access provided?
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

2.5 Product Description

2.5.1 Description of product use pattern
Click here to enter text.
2.5.2 Brief summary of the mode of action of the insecticide(s)
Click here to enter text.
2.5.3 Registration Status: List the countries where the product is currently registered for sale and use, under review and/or intended to be submitted for review
Click here to enter text.

2.5.4 **Fiber and net technology**

2.5.4.1 Whether the yarn is polyfilament or monofilament	Click here to enter text.
2.5.4.2 The intended number of filaments in the yarn, if polyfilament, and manufacturing tolerance for the number	Click here to enter text.
2.5.4.3 The denier of the yarn	Click here to enter text.
2.5.4.4 Whether the netting is warp knitted fabric or some other construction	Click here to enter text.
2.5.4.5 The intended mass of net per square meter and manufacturing tolerance	Click here to enter text.

2.5.4.6 The colors and sizes of the product	Click here to enter text.

2.5.5 **Filament technology**

2.5.5.1 The nature (e.g. polyester) of the fiber used to form the filaments/yarn	Click here to enter text.
2.5.5.2 Whether the insecticide treatment/impregnation technology is based on coating or incorporation into the filament	Click here to enter text.

2.5.6 **Physical characteristics of the netting**

2.5.6.1 The mesh size, measured by the method defined in the LLIN guidelines given in the JMPS Manual; please state the proposed limits and manufacturing tolerance	Click here to enter text.
2.5.6.2 Bursting strength, state the proposed limit and manufacturing tolerance	Click here to enter text.

2.5.7 **Insecticide (active ingredient)**

2.5.7.1 Content of insecticide in g/kg of netting material and the manufacturing tolerance(state the sampling protocol, size and number of samples analyzed and analytical method used)	Click here to enter text.
2.5.7.2 Data on the spatial variation in active ingredient content (g/kg) occurring within a single net (within net variability) and state the sampling protocol, size and number of samples analyzed, analytical method used and the range or Relative Standard Deviation (RSD%);	Click here to enter text.
2.5.7.3 An equation which describes/models the release/retention of the active ingredient (specify if release/retention index after the first wash is the same as subsequent washes)	Click here to enter text.
2.5.7.4 Limits for retention index and a full description of the test method used, if it has not been published	Click here to enter text.
2.5.7.5 If the test method has been published, identify any modifications made to the published test protocol (give reference)	Click here to enter text.
2.5.7.6 Please give full details of the sampling procedure, the quantity (g) analyzed, the washing conditions and the calculation	Click here to enter text.

2.5.8 Synergist or any other chemical (other than the binder) considered essential for good performance. Please give details if any used.

2.5.8.1 ISO common name (or code, if no common name is available) and source of the synergist (manufacturer's name and address)	Click here to enter text.
2.5.8.2 Content, in g/kg of netting material and the manufacturing tolerance (state the sampling protocol, size and number of samples analyzed and analytical method used)	Click here to enter text.
2.5.8.3 Content in mg per square meter and the manufacturing tolerance;	Click here to enter text.
2.5.8.4 Data on the spatial variation in synergist content (g/kg) occurring within a single net (within net variability)	Click here to enter text.
2.5.8.5 Please state the sampling protocol, size and number of samples analyzed, analytical method used and the range or Relative Standard Deviation (RSD%)	Click here to enter text.
2.5.8.6 An equation which describes/models the release/retention of the synergist (specify if release/retention index after the first wash is the same as subsequent washes)	Click here to enter text.
2.5.8.7 Proposed limits for retention index and provide a full description of the test method used, if it has not been published	Click here to enter text.
2.5.8.8 If the test method has been published, identify any modifications made to the published test protocol (give reference)	Click here to enter text.
2.5.8.9 Please give full details of the sampling procedure, the quantity (g) analyzed, the washing conditions and the calculation	Click here to enter text.

2.5.9 Storage stability of the netting

2.5.9.1 The proposed limits and manufacturing tolerance for retention of physical characteristics and active ingredient and synergist (if applicable) after storage at 54 ± 2˚C for 14 days	Click here to enter text.
2.5.9.2 If the product is considered unstable at 54˚C, propose alternative values for storage temperature and time (based on those given in the Specifications Manual)	Click here to enter text.
2.5.9.3 Please provide data obtained after storage at 54˚C, to show the extent of the instability	Click here to enter text.
2.5.9.4 Explain the possible reasons for the observed instability, if known	Click here to enter text.

3. MANUFACTURER DECLARATION

I declare that all the information provided in this application is current and correct. Any changes to the information provided in the application will be readily communicated to EFDA.

Name of the Authorized Contact Person for the Manufacturer: Click here to enter text.

Signature of the Authorized Contact Person for the Manufacturer:_____

Date: Click here to enter text.

Annex 2: Specifications applicable to netting materials

1. Fibre composition

Can be determined by:

- Observation of filament by microscopy.
- Using infra-red methods.
- Dissolving in solvent (main method, ISO standard 1833).

2. Air permeability

Standardised pressure. Results are expressed in litre/m2/second; ISO 9237.

3. Tear resistance

Use a dynamometer or insert a nail and apply standard weight. Alternatively use the pendulum method. Force is measured in Newtons. ISO 4674-2.

4. Bursting strength

Diaphragm method. The netting sample to be tested is clamped over an elastic diaphragm and increasing pressure is applied to the underside of the diaphragm until the specimen bursts.

Result is given in Pascal or KiloPascal (KPa). ISO 2960.

5. Flammability

Propane flame applied for one second to fabric held at fixed angle. The result is the time of flame spread along distance D. CPSC (US) 16 part 16-10-cs 191-53.

- Class 1: t > 7s
- Class 2: t = 4s or < 7s
- Class 3: t < 4s

Specification for polyester netting material

Polyester netting	**Threshold value or range**	**ISO standard**
Warp knitted		8388
Multifilament	Minimum 36	Not available
Mesh size	Minimum 156 holes/inch	Not available

Denier (optional)	100 or 75	2060, Dupro
Dimensional stability	Shrinkage less than 5%	5077
Weight (gr/m2)	100 denier: 40 g	3801
	75 denier: 30 g	
Bursting strength (kPa)	100 denier: minimum 405	2960
	75 denier: minimum 220	
Fire safety*	16	(CFR 1610-CS191-53)
*ISO 6941:1984 Testile fabric-burning behaviour-measurement of flame spread properties of vertically oriented specimens		

Specification for polyethylene

Knitted density polyethylene netting	**Threshold value or range**	**ISO standard**
Mesh size	Minimum 156	Not available
Fibre analysis	100% HDPE	Not available
Denier	100	1833
Dimensional stability	Shrinkage less than 5%	2060, Dupro, optional
Weight (gr/m2)		
Bursting strength (kPa)		
Fire safety*	16	(CFR 1610-CS191-53)
*Other specification for polyethylene require further investigation		

Specification for cotton

Knitted Cotton	**Threshold value or range**	**ISO standard**
Mesh size	Minimum 156 holes/inch	Not available
Fibre analysis	To be specified*	1833
Denier	No denier	Not available
Dimensional stability	Shrinkage less than 5%	6330 (CFR 1610-CS191-53)
Weight (gr/m2)	50	
Bursting strength (kPa)		
Fire safety*	16	(CFR 1610-CS191-53)
*netting available with mixed fibres cotton-polyester		

Annex 3: Specification for insecticide-treated nets (ITN)

S. No.	Parameter	Acceptance Criteria
1	Knockdown	NLT 95%
2	Re-generation time	1 day
3	Mortality	NLT 80%
4	Bioassay	