Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 1 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|-------------------------------------|--|---|--|
| I. | WATER | | | |
| 1. | Drinking water | Total coliform | IS 1622: 1981(RA 2009) | < 2-1600 organisms/ 100ml |
| | | | APHA 22 nd edition Part 9221 page 9-65 | <1.8-1600 organisms/ 100ml |
| | | E. coli | IS 1622: 1981(RA 2009) APHA 22 nd edition Part 9221 page 9-65 | Qualitative (Present/ Absent) per ml |
| 2. | Swimming Pool water | Total coliform | IS 1622: 1981(RA 2009) | <2-1600 organisms/ 100ml |
| | | | APHA 22 nd edition Part 9221 page 9-65 | < 1.8-1600 organisms/ 100ml |
| | | Standard Plate Count | IS 3328-1993- Reaff. 2008 APHA 22 nd edition Part 9215 page 9-52 | < 1 cfu/ml |
| 3. | Natural Packaged Mineral Water & | Total viable colony count at 37°C & 22°C | IS 5402: 2012 At 37°C | < 1 cfu/ml |
| | Packaged Drinking Water | Yeast & Mould count | IS 5403: 1999 (RA 2009) | Qualitative (Present/ Absent) per 250 ml |
| | | Coliform | IS 5401 (Part I): 2002 (RA 2012) | Qualitative (Present/ Absent) per 250 ml |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 2 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|---|---|--|--|
| | Natural Packaged Mineral Water & Packaged Drinking Water | E. coli | IS 5887 (Part I): 1976 (RA 2005) | Qualitative (Present/ Absent) per 250 ml |
| | Dilliking water | Faecal Streptococci | IS 5887 (Part 2): 1976 (RA 2005) | Qualitative (Present/ Absent) per 250 ml |
| | | Salmonella | IS 5887(Part 3): 1999 (RA 2009) / ISO-6579 – 1993 | Qualitative (Present/ Absent) per 250 ml |
| | | Shigella | IS 5887 (Part 7): 1999 (RA 2009) | Qualitative (Present/ Absent) per 250 ml |
| | | Vibrio cholerae &. Vibrio parahaemolyticus | IS 5887 (Part 5): 1976 (RA 2005) | Qualitative (Present/ Absent) per 250 ml |
| | | S. aureus | IS 5887(Part 2): 1976 (RA 2009) | Qualitative (Present/ Absent) per 250 ml |
| | | Sulphite reducing anaerobes | IS 13428: 2005 Annex. C | Qualitative (Present/ Absent) per 50 ml |
| | | | Standard method for examination of water and waste water 22 nd edition (APHA) | Qualitative (Present/ Absent) per 100 ml |
| | | Pseudomonas aeruginosa | IS 13428-2005 Annex. D | Qualitative (Present/ Absent) per 250 ml |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 3 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|--------------------------------------|--|---|---|
| 4. | Water from other sources (e.g. Water | MPN coliform | IS 1622: 1981(RA 2009) | < 2 -1600 organisms/ 100ml |
| | for Processed food industry) | | APHA 22 nd edition Part 9221 page 9-65 | < 1.8-1600 organisms/ 100ml |
| | | Standard plate count | IS 5402-2012/ IS 1622-1981(RA 2009); | < 1 cfu/ml |
| | | | APHA 22 nd edition Part 9215 page 9-52 | < 1 cfu/ml |
| | | Proteolytic/ Lipolytic Bacteria count | IS 4251: 1967 (RA 1992) | < 5 organisms/ml |
| II. | FOOD AND AGRIC | CULTURAL PRODUCTS | | |
| 1. | Milk & Milk Produc | ets | | |
| a . | Raw Milk | Aerobic plate count | IS 5402: 2012 | < 1 cfu/ml |
| | | Coliform count | IS 5401 (Part 1): 2002 (RA 2012) | Qualitative (Present/ ml or Absent / ml) |
| | | S. aureus | IS 5887 (Part 2): 1976 (RA 2009) | Qualitative (Present/ 25 ml or Absent /25 ml) |
| | | Faecal Streptococci | IS 5887 (Part 2): 1976 (RA 2009) | Qualitative (Present/ 25 ml or Absent /25 ml) |
| b. | Milk Powders | Bacterial count | IS 5402: 2012 | < 10 cfu/g |
| | | Coliform count | IS 5401(Part 1): 2002/ FDA BAM-8 th edition | < 10 cfu/g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 4 of 21

| .No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|------|-------------------------------|-------------------------|---|---|
| | Milk Powders | S. aureus | IS 5887 (Part 2): 1976 (RA 2009) | Qualitative (Present/Absent) per 25gm |
| | | Salmonella | IS 5887 (Part 3): 1999 (RA 2009) | Qualitative (Present/Absent) per 25gm |
| | | Shigella | IS 5887(Part 8): 1999 (RA 2009) | Qualitative (Present/Absent) per 25gm |
| c. | Condensed milk | Bacterial count | IS 5402: 2012 (RA 2007) | < 10 cfu/g |
| | | Coliform count | IS 5401(Part 1): 2002 / (RA 2012) | < 10 cfu/g |
| | | S. aureus | IS 5887(II)1976 (RA 2009) | Qualitative (Present/Absent) per 25gm |
| | | Yeast & Mould count | IS 5403: 1999 (RA 2009) | < 10 cfu/g |
| ı. | Cheese | Bacterial count | IS 5402: 2012 | < 10 cfu/g |
| | | Coliform count | IS 5401 (Part 1): 2002 (RA 2012) | <10 cfu/g |
| | | S. aureus | IS 5887 (Part 2)1976 (RA 2009) | Qualitative (Present/Absent) per 25gm |
| | | Salmonella | IS 5887(Part 3): 1999 / ISO-6579/1993/ | Qualitative (Present/Absent) per 25gm |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 5 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|-------------------------------|-------------------------|---|---|
| | Cheese | Shigella | IS 5887 (Part 7): 1999 (RA 2009) | Qualitative (Present/Absent) per 25gm |
| | | E. coli | IS 5887 (Part 1): 1976 (RA 2005) | Qualitative (Present/Absent) per 25gm |
| | | Listeria monocytogenes | IS 14988 (Part 1): 2001 | Qualitative (Present/Absent) per 25gm |
| | | Yeast & Mould count | IS 5403: 1999 (RA 2009) | < 10 cfu/g |
| e. | Butter | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | Qualitative (Present/Absent) per g |
| | | Yeast & Mould count | IS 5403: 1999 (RA 2009) | < 10 cfu/g |
| f. | Ice creams | Total Plate Count | IS 5402: 2012 | < 10 cfu/g |
| g. | Edible casein | Bacterial count | IS 5402: 2012 | < 10 cfu/g |
| | | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | < 10 cfu/g |
| | | Yeast & Mould count | IS 5403: 1999 (RA 2009) | < 10 cfu/g |
| h. | Packaged | Total plate count | IS 5402: 2012 | < 1cfu/ml |
| | Pasteurized Milk | Coliform | IS 5401(Part 1): 2002 (RA 2012) | Qualitative (Present/Absent) per m |
| i. | Infant milk substitute | Total bacterial count | IS 5402: 2012 | < 10 cfu/g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 6 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|-------------------------------|-------------------------|---|--|
| | Infant milk substitute | Coliform | IS 5401 (Part 1): 2002 (RA 2012) | Qualitative (Present/Absent) per g |
| | | Staphylococcus aureus | IS 5887(Part 2): 1976 (RA 2009) | Qualitative (Present/ Absent) per 25 g |
| | | Escherichia coli | IS 5887(Part 1): 1976 (RA 2005) | Qualitative (Present/ Absent) per 25 g |
| j. | Malted milk foods | Total bacterial count | IS 5402: 2012 | < 10 cfu/g |
| | | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | < 10 cfu/g |
| 2. | Beverages | | | |
| a. | Alcoholic Drinks | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | < 1 cfu/ml |
| | Beer | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | Qualitative (Present/Absent) per ml |
| b. | Non alcoholic drinks | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | Qualitative (Present/Absent) per ml |
| | | Yeast & Mould count | IS 5403: 1999 (RA 2009) (RA 2009) | < 1 cfu/ml |
| 3. | Cooked Food Products | Total Bacterial Count | IS 5402: 2 012 | < 10 cfu/g |
| | Products | Coliform count | IS 5401 (Part 1): 2002 (RA 2012) | < 10 cfu/g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 7 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|-------------------------------|---------------------------------------|---|---|
| | Cooked Food Products | E. coli | IS 5887(Part 1): 1976 (RA 2005) | Qualitative (Present/Absent) per 25 g |
| | | Salmonella | IS 5887(Part 3): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | S. aureus | IS 5887(Part 2): 1976 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| 4. | Fish & Fishery Products | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | Froducts | E. coli | IS 5887(Part 1): 1976 Reaff-2005/ | Qualitative (Present/Absent) per 25 g |
| | | Coliform Count | IS 5401 (Part 1): 2002 (RA 2012) | < 10 cfu/g |
| | | Salmonella | IS 5887 (Part 3): 1999 | Qualitative (Present/Absent) per 25 g |
| | | S. aureus | IS 5887(Part 2): 1976 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | Vibrio cholerae & V. parahaemolyticus | IS 5887(Part 5): 1976 (RA 2005) | Qualitative (Present/Absent) per 25 g |
| | | Shigella | IS 5887(Part 7): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 8 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|-------------------------------|--------------------------------------|---|---|
| 5. | Meat & Meat Products | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | Trouders | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | < 10 cfu/g |
| | | E. coli | IS 5887(Part 1): 1976 (RA 2005) | Qualitative (Present/Absent) per 25 g |
| | | Salmonella | IS 5887(Part 3): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | S.aureus | IS 5887(Part 2): 1976 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | Faecal Streptococci | IS 5887(Part 2): 1976 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | Shigella | IS 5887(Part 7): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | Vibrio cholera & V. parahaemolyticus | IS 5887(Part 5): 1976 (RA 2005) | Qualitative (Present/Absent) per 25 g |
| | | Clostridium perfringens | IS 5887(Part 4): 1999 (RA 2005) | Qualitative (Present/Absent) per 25 g |
| | | Bacillus cereus | IS 5887(Part 6): 1999 (RA 2005) | Qualitative (Present/Absent) per 25 g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 9 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|----------------------------------|-------------------------|---|---|
| 6. | Mutton/Goat Meat Fresh/Fresh- | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | Frozen/Fresh- Chilled | E.coli | IS 5887(Part 1): 1976 Reaff-2005 | < 10 cfu/g |
| | | Salmonella | IS 5887(Part 3): 1999 (RA 2009) | Qualitative (Present/Absent) per 50 g |
| | | Staphylococcus aureus | IS 5887(Part 2): 1976 (RA 2005) | < 10 cfu/g |
| | | Yeast and mould | IS 5403: 1999 (RA 2009) | < 10 cfu/g |
| 7. | Fruits & Vegetable Products | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | (Fresh, Processed and Canned) | Coliform count | IS 5401(Part 1): 2002/ (RA 2012) | < 10 cfu/g |
| | | Yeast & Mould count | IS 5403: 1999 (RA 2009) | < 10 cfu/g |
| | | E. coli | IS 5887(Part 1): 1976 (RA 2005) | Qualitative (Present/Absent) per 25 g |
| | | Salmonella | IS 5887(Part 3): 1999 (RA 2005) | Qualitative (Present/Absent) per 25 g |
| | | Faecal Streptococci | IS 5887(Part 2)-1976 (RA 2009) | Qualitative (Present/Absent) per 25 g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 10 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|---|-------------------------|---|---|
| | Fruits & Vegetable Products (Fresh, Processed | Shigella | IS 5887(Part 7): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | and Canned) | Clostridium perfringens | IS 5887(Part 4): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | Bacillus cereus | IS 5887(Part 6): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| 8. | Spices | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | (whole and Ground) | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | < 10 cfu/g |
| | | Yeast & Mould count | IS 5403: 1999 (RA 2009) | < 10 cfu/g |
| 9. | Cereals & Grains | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | < 10 cfu/g |
| | | Yeast & Mould count | IS 5403: 1999 (RA 2009) | < 10 cfu/g |
| | | E. coli | IS 5887(Part 1): 1976 (RA 2005) | Qualitative (Present/Absent) per 25 g |
| | | Salmonella | IS 5887(Part 3): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | S. aureus | IS 5887(Part 2): 1976 (RA 2009) | Qualitative (Present/Absent) per 25 g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 11 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|-------------------------------|---------------------------------------|---|---|
| | Cereals & Grains | Total Aflatoxin | SOP- SRI/MICRO/023 (Date Of Issue-12.08.2013 Issue No001) | 1.7 μg/kg – 45 μg/kg |
| 10. | Gelatin | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | | E. coli | IS 5887 (Part 1): 1976 (RA 2005) | < 10 cfu/g |
| 11. | Honey | Total count of Pollen & plant element | IS 4941-1994 | < 25 to 60000 count/g |
| 12. | Egg Powder | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | < 10 cfu/g |
| | | Yeast & Mould count | IS 5403:1999 (RA 2009) | < 10 cfu/g |
| | | Salmonella | IS 5887(Part 3): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| 13. | Wheat Flour | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | < 10 cfu/g |
| | | Yeast & Mould count | IS 5403-1999 (RA 2009)/ | < 10 cfu/g |
| | | E. coli | IS 5887(Part 1): 1976 (RA 2005) | Qualitative (Present/Absent) per 25 g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 12 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|-------------------------------|-------------------------|---|---|
| 14. | Nut and Nut | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | Products | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | < 10 cfu/g |
| | | Yeast & Mould count | IS 5403: 1999 (RA 2009) | < 10 cfu/g |
| | | E. coli | IS 5887(Part 2): 1976 (RA 2005) | Qualitative (Present/Absent) per 25 g |
| | | Salmonella | IS 5887(Part 3): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | Shigella | IS 5887(Part 7): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | Total Aflatoxin | SOP- SRI/MICRO/023 (Date Of Issue-12.08.2013 Issue No001) | 1.7 μg/kg to 45 μg/kg |
| 15. | Cereal Based | Aerobic plate count | IS 5402: 2012 | < 10 cfu/g |
| | Complementary Foods | Coliform count | IS 5401(Part 1): 2002 (RA 2012) | < 10 cfu/g |
| | | Yeast & Mould count | IS 5403: 1999 (RA 2005) | < 10 cfu/g |
| | | E. coli | IS 5887(Part 1): 1976 (RA 2005) | Qualitative (Present/Absent) per 25 g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 13 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|--|-------------------------|---|--|
| | Cereal Based Complementary Foods | Salmonella | IS 5887(Part 3): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| | | S. aureus | IS 5887(Part 2): 1976 (RA 2009) | Qualitative (Present/Absent) per 25 g |
| 16. | Juices | Aerobic plate count | IS 5402: 2012 | < 10 cfu/ml |
| | | Shigella | IS 5887 (Part 7): 1999 (RA 2009) | Qualitative (Present/Absent) per 25 ml |
| | | S. aureus | IS 5887(Part 2): 1976 (RA 2009) | Qualitative (Present/Absent) per 25 ml |
| | | Coliform count | IS 5401 (Part 1): 2002 (RA 2012) | Qualitative (Present/Absent) per 25 ml |
| | | E.coli | IS 5887(Part 1): 1976 (RA 2005) | Qualitative (Present/Absent) per 25 ml |
| | | Salmonella | IS 5887(Part 3): 1999 (RA 2009) ISO-6579 - 1993 | Qualitative (Present/Absent) per 25 ml |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 14 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|---|-------------------------------|---|---|
| III. | BIOCIDES | | | |
| 1. | Disinfectant | Rideal Walker Coefficient | IS 1061: 1997 (RA 2005) | 3.0 to 20 RWC |
| | Phenyl & De- odorizing cum disinfectant fluid | Staphylococcal Coefficient | IS 1061: 1997 (RA 2005) | 1 to 10 SAC |
| IV. | COSMETICS AND | ESSENTIAL OIL | | |
| 1. | Skin creams & lotions | Total microbial count | IS 14648: 2011 | ≥ 1 cfu in liquids and ≥ 10 cfu in solids |
| | | Yeast & mould count | IS 14648: 2011 | ≥ 1 cfu in liquids and ≥ 10 cfu in solids |
| | | E. coli | IS 14648: 2011 | Qualitative (Present/Absent) per g |
| | | Salmonella | IS 14648: 2011 | Qualitative (Present/Absent) per g |
| | | S. aureus | IS 14648: 2011 | Qualitative (Present/Absent) per g |
| | | Pseudomonas aeruginosa | IS 14648: 2011 | Qualitative (Present/Absent) per g |
| | | Candida albicans | IS 14648: 2011 | Qualitative (Present/Absent) per g |
| 2. | Hair oil | Total aerobic microbial count | IS 7123:1993 (Reaffirmed 2003, edition 3.5) | ≥ 1 cfu/g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 15 of 21

| .No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|------|-------------------------------|-------------------------|---|---|
| v. | DRUGS AND PHA | RMACEUTICALS | | |
| 1. | Herbal Products | | | |
| a. | Powder | Aerobic plate count | As per AP Pt-II, Vol-III, 1 st edition-2010 | ≥10 cfu/g/ml |
| | | Yeast and Mould count | As per AP Pt-II, Vol-III, 1 st edition-2010 | ≥10 cfu/g/ml |
| | | E. coli | As per AP Pt-II, Vol-III, 1 st edition-2010 | Qualitative (Present/Absent) per g |
| | | Salmonella | As per AP Pt-II, Vol-III, 1 st edition-2010 | Qualitative (Present/Absent) per g |
| | | S. aureus | As per AP Pt-II, Vol-III, 1 st edition-2010 | Qualitative (Present/Absent) per g |
| | | Pseudomonas aeruginosa | As per AP Pt-II, Vol-III,.1st edition-2010 | Qualitative (Present/Absent) per g |
| 2. | Pharmaceutical | | | |
| a. | Raw Material Paclitaxel | Total Microbial count | IP 2014 ,BP 2014 and USP 37-2014 | ≥10 cfu/g/ml |
| | | Yeast and Mould count | IP 2014 ,BP 2014 and USP 37-2014 | ≥10 cfu/g/ml |
| | | E. coli | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| | | Salmonella | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 16 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|-----------------------------------|-------------------------|---|---|
| | Raw Material Paclitaxel | S. aureus | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| | | Pseudomonas aeruginosa | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| b. | Tetracycline HCl | Total Microbial count | IP 2014 ,BP 2014 and USP 37-2014 | ≥10 cfu/g/ml |
| | | Yeast and Mould count | IP 2014 ,BP 2014 and USP 37-2014 | ≥10 cfu/g/ml |
| | | E. coli | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| | | Salmonella | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| | | S. aureus | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| | | Pseudomonas aeruginosa | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| 3. | Finished products | | | |
| a. | Solid Oral Dosages (Tablet and | Total Microbial count | IP 2014 ,BP 2014 and USP 37-2014 | ≥10 cfu/g/ml |
| | Capsules) | Yeast and Mould count | IP 2014 ,BP 2014 and USP 37-2014 | ≥10 cfu/g/ml |
| | | E .coli | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 17 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|--|-------------------------|---|---|
| | Solid Oral Dosages (Tablet and Capsules) | Salmonella | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| | cupsuics | S. aureus | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| | | Pseudomonas aeruginosa | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| b. | Liquid Oral Dosages (Syrup) | Total Microbial count | IP 2014 ,BP 2014 and USP 37-2014 | ≥10 cfu/g/ml |
| | | Yeast and Mould count | IP 2014 ,BP 2014 and USP 37-2014 | ≥10 cfu/g/ml |
| | | E. coli | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| | | Salmonella | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| | | S. aureus | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| | | Pseudomonas aeruginosa | IP 2014 ,BP 2014 and USP 37-2014 | Qualitative (Present/Absent) per g |
| 4. | Antibiotics Finished products | | | |
| a. | Tablet | Erythromycin estolate | IP 2014 (Cup Plate Method) | 60 % to 150 % |
| | | Erythromycin stearate | IP 2014 (Cup Plate Method) | 60 % to 150 % |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 18 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|--|-------------------------|--|---|
| b. | Injection | Amikacin sulphate | IP 2014 (Cup Plate Method) | 60 % to 150 % |
| | | Polymyxin B sulphate | USP 37-2014 (Cup Plate Method) | 60 % to 150 % |
| | | Streptomycin sulphate | IP 2014 (Cup Plate Method) | 60 % to 150 % |
| | | Gentamycin sulphate | IP 2014 (Cup Plate Method) | 60 % to 150 % |
| c. | Cream | Neomycin sulphate | IP 2014 (Cup Plate Method) | 60 % to 150 % |
| 5. | Parenteral preparat | tions | | |
| a. | WFI | Sterility test | IP 2014,BP 2014 and USP 37-2014 Membrane filtration Direct inoculation | Complies/not comply |
| b. | Antibiotic liquids / Antibiotic solids | Sterility test | IP 2014 ,BP 2014 and USP 37-2014 Membrane filtration Direct inoculation | Complies/not comply |
| 6. | Ophthalamic preparations | Sterility test | IP 2014 ,BP 2014 and USP 37-2014 Membrane filtration Direct inoculation | Complies/not comply |
| 7. | Surgical items- Surgical dressings/ surgical devices/ surgical gloves/ Surgical Blades | Sterility test | IP 2014, IS 10150:1981 Clause 5.0 page 12 | Complies/not comply |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 19 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|------------------------------------|---|---|---|
| 8. | Parenteral preparations | Bacterial Endotoxin Test (Gel Clot Method) | IP 2014 and USP 37-2014 | Pass / Does not Pass |
| 9. | Finished products | Lactic acid bacillus assay | SOP- SRI/MICRO/024 (Date Of Issue-12.08.2013 Issue No001) | ≥ 10 cfu/g |
| 10. | Vitamins (Finished products) | B ₁₂ Assay | SOP- SRI/MICRO/025 (Date Of Issue-12.08.2013 Issue No001) , VT-1A | 0.0251 mcg/ml |
| | | Biotin Assay | As per USP 36-2013 | 30 to 600 mcg/ml |
| | | Calcium Pantothenate | As per USP 37-2014 | 10 to 40 ng/ml |
| VI. | BIOLOGICAL TES | STS ON OTHER MISCELLAN | EOUS TEST ITEMS | |
| 1. | Wood Testing | | | |
| a. | Block Board | Mycological test | IS 1659: 2004 Ann. H | Qualitative (Growth / No Growth) |
| b. | Plywood | Mycological test | IS 1734: 1983 (Part 7) (RA 2003) | Qualitative (Growth / No Growth) |
| c. | Adhesives | Test for stability (Fungal resistance test) | IS 2257: 1989 | Qualitative (Growth / No Growth) |
| VII. | TOXICOLOGY | | | |
| 1. | Medical devices | Biological Reactivity test (in vivo) Tissue implantation test on rats /rabbits | IS 12572 (Part 3): 1988 (RA 2010) IS 12418 (Part 4): 2000 (RA 2010) IS 13009: 2000 (RA 2010) ISO 10993-6 USP 36: 2013 | NA |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 20 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|-------------------------------|--|--|---|
| | Medical devices | Biological Reactivity test (in vivo) Acute, systemic toxicity in mice | IS 12572 (Part 6): 1988 (RA 2010) ASTM F-750: 1987 (RA 2012) IS 12418 (Part 4): 2000 (RA 2012) IS 13009: 2000 (RA 2010) ISO 10993-11 & 12 USP 36: 2013, IP 2014 | 50 ml/kg B.wt |
| | | Biological Reactivity test (in vivo) Intracutaneous reactivity on Rabbits | IS 12572 (Part 6):1988 (RA 2010) ASTM F-749: 1987 (RA 2012) ASTM F-750: 1987 (RA 2012) IS 12418 (Part 4): 2000 (RA 2012) IS 13009: 2000 (RA 2010) ISO 10993-10 & 12 USP 36: 2013, IP 2014 | 0.2 ml /site at 5 sites . |
| | | Biological Reactivity test (in Vitro) Cytotoxicity | ISO 10993-5 USP 36: 2013 | NA |
| | | Undue toxicity/Abnormal toxicity in mice | IP 2014, BP 2014, USP 36: 2013 Eur. Pharm. | 1.0 ml of extract of test item per animal |
| | | Mucous membrane irritancy test in rabbits | ISO 10993-10 OECD No. 405 IS 12572 (Part 10): 1988(RA 2010) | 0.1 g/0.1 ml per animal |
| | | Skin Sensitization Test in guinea pigs Skin irritation test in rabbits | ISO 10993- 10 IS 12572 (Part 8): 1988 (RA 2010) IS 12572 (Part 9): 1988 (RA 2010) BS 5736-7: 1983 | 0.5 ml per animal |

Accreditation Standard ISO/IEC 17025: 2005

Discipline Biological Testing Issue Date 02.11.2014

Certificate Number T-0014 Valid Until 14.10.2016

Last Amended on 09.11.2015 Page 21 of 21

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection |
|-------|-----------------------------------|---|---|---|
| | Medical devices | Haemolytic properties of material | ASTM F-756: 2008 ISO 3826 (Part 1): 2013 ISO 3826 (Part 2): 2008 | 1 mg/ml |
| | | Haemocompatibility test | ISO 3826 (Part 3): 2006 ISO 10993-4 IS 12572 (Part 14): 1994 | |
| | | Pyrogen test in rabbits | IP 2014 BP 2014 IS 10258: 2002 (RA 2012) USP 36: 2013 JP XV European Pharmacopoeia 5.0 | 10 ml/kg B.wt. per animal |
| 2. | Surgical items Rubber tubing | Rubber Tubing Toxicity/ Abnormal toxicity in mice | IS 5680: 1969 (RA 2008) IP 2014, BP 2014, USP 36: 2013, | 1.0 ml of extract of test item per animal |
| | Gloves Surgical Examination | Dermal Irritation in rabbits Skin Sensitization (Buehler's method) in guinea pigs | US FDA ISO10993-10 | 1"x1" patch (for gloves) |

NOTE: The Laboratory has demonstrated competence for the stated scope for WATER. This however <u>does not fully cover</u> the specification requirements of BIS for the Packaged Drinking Water as per IS:14543 and the Packaged Natural Mineral Water IS:13428.

Ruchi Guntuku Convenor