

s47G

20 June 2013

Attention: s47F
 Bh: 03 9096 5355.
 Bh: 1300 364 545
 Mobile s47F
 Fax 1300 360 830
 E-mail s47F@health.vic.gov.au

s47G

T: (03) 9565 4400

F: (03) 9565 4488

s47G

Re: Morphine Sulphate solution, 50mg in 50mL 0.9% Sodium Chloride Syringe, Batch: 45/BM270

Dear Ms s47F,

Following internal investigation, s47G wishes to advise the compounded product listed above has not been manufactured according to specified protocols and is therefore, not deemed suitable for patient use due to reduced efficacy.

This item was made as a batch of 20 units and was supplied to a single customer on the 18th June 2013.

Following the internal identification of this anomaly (and potential patient effect) on the 19th June 2013, the customer was immediately notified of an unspecified deficiency and requested to quarantine the batch on the evening of 19th June 2013. The customer (pharmacy) advised that no units had been distributed to the hospital wards at this time.

Replacement stock was provided to the customer on the 20th June 2013, where the batch in question (45/BM270) was retrieved. The customer could not store the increased quantities according to Schedule 8 requirements, due to the small size of the pharmacy safe.

The entire affected batch was received by s47G and immediately quarantined on site, on 20th June 2013.

Details of the event are provided on the following pages for your information.

If additional information is required, please feel free to contact me.

s47G is committed to the resolution of this issue and full co-operation with the TGA is assured.

Yours sincerely,

s47F

Digitally signed by s47F
 Date: 2013.06.20 16:41:37 +10'00'

s47F

Site Quality Manager

s47G

T: 03 9565 4454 | F: 03 9565 4488

s47F@s47G

s47G

Details of the Problem

Name, telephone and facsimile number of the person reporting the problem:

Name: s47F
Telephone: +613 9565 4454
Fax: +613 9565 4488

Date of report:
20th June 2013

Physical location of problem;
s47G

Nature of the problem;
Morphine sulphate manufactured at a lower strength than specified:
21mg/50mL instead of 50mg/50mL

Number of similar reports received:
Nil

Results of tests and other investigations on suspect or other samples;
No retention samples were kept for affected batch, no testing (apart from physical integrity testing) conducted for affected batch.

Availability for investigation of suspect sample or other samples; and
100% of the affected batch located and quarantined.
Currently these products are available for retrieval and further investigation, pending TGA advice.
Plan to destroy according to internal procedure

Details of the Product

Product name, strength and description including dosage form: Morphine Sulphate solution, 50mg in 50mL 0.9% Sodium Chloride Syringe

ARTG number: N/A
Pack size: 1
Batch number: 45/BM270
Part Number: MORP01S050
Serial number: N/A
Donation number(s): N/A
Tissue bank number(s): N/A
Expiry date: 15 September 2013

Manufacturer/Australian sponsor and contact telephone and facsimile numbers:

s47G
pH: +613 9565 4400
Fax: +613 9565 4488

Date manufactured:
17 Jun 2013

Date released:
17 Jun 2013

Quantity of the batch:
20 syringes

Date and amount released;
20 syringes released 17 Jun 2013

Local distribution;

All 20 syringes shipped by courier directly to:

s47G

The Valley Private Hospital
Corner Police and Gladstone Roads
Mulgrave, Vic 3170

Overseas distribution of product exported from Australia:

Nil

Number of complaints received:

Nil

Whether the product is meant to be sterile; and

Sterile, aseptically processed

Risk assessment and proposed action:

Type of hazard, and assessment of risk to user:

Potential patient effect of under-medication

Action proposed by sponsor:

Product quarantined, to be destroyed:

- Non-Conformance NCR514 raised
- Full investigation, including root cause analysis and action plan to be developed and executed

Proposed recall classification:

Class II

Proposed recall level:

Hospital level (pharmacy only)

Availability of alternative product:

Single batch affected

Replacement stock compounded and supplied



Australian Government

Department of Health
 Therapeutic Goods Administration

AMENDED - URGENT MEDICAL DEVICE RECALL*

The sponsor recently advised the TGA that 2 additional batches and 46 additional customers were identified as being affected by this recall action.

LEVEL: Hospital

CLASS: Class I

REFERENCE: RC-2014-RN-01091-1

DATE AGREED: 10/10/2014

PRODUCT 0.9% Sodium Chloride for Irrigation 2000ml and Water for Irrigation
 : 2000ml

Newly identified batches :

Product Code	Batch	Description	Expiry Date
AHB7616	S78F1	0.9% Sodium Chloride for Irrigation 2000mL	Aug 2016
AHB7606	S78A6	Water for Irrigation 2000mL	Aug 2016

Previously identified batches :

Product Code	Batch	Description	Expiry Date
AHB7616	S77N6	0.9% Sodium Chloride for Irrigation 2000mL	July 2016
AHB7616	S77R8	0.9% Sodium Chloride for Irrigation 2000mL	July 2016
AHB7606	S77N5	Water for Irrigation 2000mL	July 2016

ARTG Number: 155928

SPONSOR: s47G

PHONE: s47G

REASON: Investigation of a small number of customer complaints has confirmed a reported problem of solution leaking into the overpouch. It has been identified that the issue was caused by a component used in the manufacture of the lots above, and is confined to these batches. There are no other affected products. This issue potentially impacts the sterility of the irrigation fluid.

PROPOSED ACTION: Customers are advised to locate and remove all of the affected products and lot numbers from their facility. The affected product should be returned for credit by contacting s47G Customer Service. Additionally, customers are advised to bring this matter to the attention of relevant

prescribers within their hospital so that any patient who is undergoing infusion, or has very recently received an infusion of this product, can be monitored.

The sponsor is expected to dispatch letters to all affected customers within two working days of the agreed date. **Please do not contact the sponsor for further information unless you believe that you have the goods under recall and have not received a recall letter.**

Product Distribution: **195 hospitals/distributors/medical centres in ACT, NSW, QLD, VIC & WA**

Product export status: New Zealand and Singapore

This issue was first identified by the Sponsor.

*For further details about Recall Actions, please refer to <http://tga.gov.au/safety/recalls-about.htm>

Approval under subsection 61 (7) of the Therapeutic Goods Act 1989

Under subsection 61(7) of the Therapeutic Goods Act 1989, the delegate of the Secretary may release therapeutic goods information where release is necessary to ensure the safe use of particular therapeutic goods or relating to the reasons for withdrawal of therapeutic goods from supply in Australia.

In relation to issues with the 0.9% Sodium Chloride for Irrigation 2000ml and Water for Irrigation 2000ml I, as delegate of the Secretary for the purposes of section 61(7) of the *Therapeutic Goods Act*, approve the release of the information of the therapeutic goods information relating to recall action (i.e., Recall action notice and list of affected customers) to the following personnel or organisation. The information to be released can be found in TRIM: R14/1136104, R14/1136191, R14/1136199 & R14/1136213

Section 61(7) Delegate Name: s47F **Position Number:** 20010778 **(Signed electronically)**
Date: 4/11/2014

Medicine Recall Actions

(to be dispatched after 2 working days after the approval date)

#Recalls_Medicines Group which includes state and territory nominees for medicines identified in [Appendix IV of the URPTG](#) as well as appropriate contacts identified within [Appendix V of the URPTG](#).

JARPANSA (03) 9433 2210 s47F @arpansa.gov.au

Operations Mgr, Australian Retailers Association (03) 8600 3399 info@retail.org.au

Metcash [IGA Supermarkets] (Medicines sold by Grocery Retailers) 1800 021 731/1300 135 690 s47F @metcash.com
 consumersupport@metcash.com

Export of Class I/II recalled products Send to countries: _____

Class I recalls of Australian manufactured medicines Send to Rapid Alert list

Device recall actions

(to be dispatched after 2 working days after the approval date)

#Recalls_Devices Group which includes state and territory nominees for medical devices identified in [Appendix IV of the URPTG](#) as well as appropriate contacts identified within [Appendix V of the URPTG](#).

Orthopaedic Implants: (02) 8071 8002 s47F, s47F @aoa.org.au

Australian Orthopaedic Association s47F @aoanjrr.org.au

(08) 8223 4075 s47F, National Joint Replacement Registry

Operations Mgr, Australian Retailers Association (03) 8600 3399 info@retail.org.au

Metcash [IGA Supermarkets] (Devices sold by Grocery Retailers) 1800 021 731 s47F @metcash.com
 consumersupport@metcash.com

Devices that relate to poisons / poisoning:

WA Poison Information (08) 9346 3493 poisonscentre@health.wa.gov.au
 s47F @health.wa.gov.au

NSW Poison Information (02) 9845 3597 nswpoisons@chw.edu.au

QLD Poison Information (07) 3252 1903 Poisons.Info@health.qld.gov.au

VIC Poison Information (03) 9496 4912 js47F @austin.org.au

Export of Class I/II recalled products Send to countries: Singapore

Consumer recall actions

Editor, Choice ausconsumer@choice.com.au

President, PSA (02) 6285 2869 psa.net@psa.org.au

Executive Director, Pharmacy Guild (02) 6270 1800 s47F @guild.org.au

s47F @guild.org.au

Note: Individual fax numbers added to as follows: Addressee/Organisation/faxnumber@fax.tga.gov.au

Control Document: R14/878447

Date 18/08/2014

Blood recall actions which includes state and territory nominees for medicines identified in [Appendix IV of the URPTG](#) as well as appropriate contacts identified within [Appendix V of the URPTG](#)

#Recalls_Blood and Human Tissues

Group

- | | | | |
|------------------------------------|--------------|----------------|--|
| <input type="checkbox"/> NSW: s47F | , NSW Health | (02) 9424 5860 | s47F@doh.health.nsw.gov.au |
| <input type="checkbox"/> NT : s47F | , NT Health | (08) 8922 8027 | s47F@nt.gov.au |
| <input type="checkbox"/> NT : s47F | , NT Health | (08) 8999 2412 | s47F@nt.gov.au |
| <input type="checkbox"/> SA: s47F | , SA Health | (08) 8463 5540 | s47F@health.sa.gov.au |
| | | | bloodorganandtissueprograms@health.sa.gov.au |
| <input type="checkbox"/> TAS: s47F | TAS Health | (03) 6233 6392 | s47F@dhhs.tas.gov.au |
| <input type="checkbox"/> WA: s47F | , WA Health | (08) 9222 2463 | s47F@health.wa.gov.au |
| | | | poisons@health.wa.gov.au |

Safety Alerts (to be dispatched with a signed copy of the Safety Alert letter)

#Recalls_Medicines Group which includes state and territory nominees for medicines identified in [Appendix IV of the URPTG](#)

#Recalls_Devices Group which includes state and territory nominees for medical devices identified in [Appendix IV of the URPTG](#).

Additional comments:

From: s47F
 To: Recalls
 Subject: FW: Sterility test failure - Sodium chloride for injection MS 0.9% w/v 5 mL plastic ampoule, AUST R 199991, Batch No: 1F2983003, [SEC=UNCLASSIFIED]
 Date: Thursday, 9 October 2014 11:35:32 AM
 Attachments: [Draft Recall Letter NaCl 5mL 1F2983003 10_2014.pdf](#)
[Draft Fax Reply Form Recall NaCl 5mL 1F2983003 10_2014.pdf](#)
[Water for Injection and Sodium chloride for Injection Stock on Hand by SKU and Batch Australia 1_10_2014.pdf](#)
[COA SOH 1_10_2014.pdf](#)

Hi s47F

Please create a new problem for this in RAMP . Also create a new TRIM file and relate TRIM file 2014/043596 with the new one.

s47F

F

From: s47F [mailto:s47F@interpharma.com.au]
 Sent: Tuesday, 7 October 2014 2:49 PM
 To: s47F
 Cc: s47F; Recalls
 Subject: RE: Sterility test failure - Sodium chloride for injection MS 0.9% w/v 5 mL plastic ampoule, AUST R 199991, Batch No: 1F2983003, [SEC=UNCLASSIFIED]

Dear s47F

Thank you for your email and attachments

In response please note as follows:

- a) Confirmation of the number of units of NaCl 5mL Batch Number 1F2983003 that s47G imported to Australia

2,844 Boxes (one box contains 50x5mL ampoules)

- b) Number of units of NaCl 5mL Batch Number 1F2983003 distributed from s47G premises

s47G does not hold any stock and therefore does not 'distribute from our premises' InterPharma has a distribution contract with Clifford Hallam Healthcare whereby all stock imported to Australia is shipped directly to the Clifford Hallam Healthcare's warehouse – in this case Batch Number 1F2983003 was transported directly from Port Melbourne to Clifford Hallam Healthcare, Dandenong.

On arrival two units (boxes) were sampled by InterPharma staff to check packaging as part of the QA release. Additionally 1 Box was sent to the TGA for testing.

- c) Number of units of NaCl 5mL Batch 1F2983003 that InterPharma and contracted distributor (CH2) have withheld from further distribution

This batch has never been supplied to the market. As of 1 Oct 2014 2,841 Boxes are in quarantine at CH2, Dandenong warehouse. Please note: this represents all stock that arrived in Australia less the two boxes used by s47G for QA checking (destroyed on completion of checking)

- d) Undertake a wholesale level recall of NaCl Batch 1F2983003...

Please see attached a draft recall letter and fax return form. We wish to discuss the necessity to undertake a wholesale recall as no stock has been distributed to the wholesalers in Australia and all stock imported to Australia is accounted for at our contracted receiving warehouse CH2 Dandenong.

- e) Confirm distribution Details of NaCl 5mL Batches 1F2983002 and 1F2983001

1F2983002: 2,988 Boxes (50x5mL ampoules) were received from the manufacturer and 2,793 remain in stock as of today i.e. 7 October 2014
 1F2983001: 3,024 Boxes (50x5mL ampoules) were received from the manufacturer and 2,853 remain in stock as of today i.e. 7 October 2014

- f) Confirm any export of NaCl 5mL ARTG 199991

There has been no export

- g) Provide suitable evidence to demonstrate that other batches of: Sodium Chloride for Injection MS 0.9% in plastic ampoules and Water for Injection MS in plastic ampoules that are in stock and manufactured on the same filling line as batch 1F2983003 are sterile

No batches of any stock are released for sale in Australia without the batch Certificates of Analysis being checked. These include the requirement for sterility

Please see attached ALL individual batch COA's (69 batches) of all stock currently for supply in Australia. All of these COA's confirm each batch is within specifications.

These COA's are scanned in order of the batches listed in the SOH report dated 1 Oct 2014 (also attached).

Regarding the further information that you have requested (by 23 October) we have informed the manufacturer of this requirement and they will respond in due course.

As initial feedback in relation to batch 1F2983003 we have been informed that the manufacture has already checked its retention samples for batch 1F2983003 and find them to conform to sterility. They have also started repeat sterility testing on the retention samples and the interim 2 day results show no contamination. We will continue to receive updates on this testing until completed

The manufacturer has also commenced sterility testing of two further batches of manufactured product that were manufactured on either side (time wise) of batch 1F2983003 and these two batches similarly show (in the interim) no sign of contamination

In Australia we have supplied 2 Boxes of 1F2983003 to Chemical Analysis Pty Ltd, Croydon, Melbourne for further independent sterility testing. Interim results will be available next week.

Regards

s47F

s47G

Manly NSW 2095
Phone: +61 2 9976 6876
Fax: +61 2 9976 6859

s47G

C/O Pharmaco (NZ) Ltd
Toll Free: 1300 308 213
Phone: +64 9 377 3336
Fax: +64 9 307 1307

s47G

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From: s47F [mailto:s47F@tga.gov.au]

Sent: Thursday, 2 October 2014 1:59 PM

To: s47F

Recalls

Subject: Sterility test failure - Sodium chloride for injection MS 0.9% w/v 5 mL plastic ampoule, AUST R 199991, Batch No: 1F2983003, [SEC=UNCLASSIFIED]

~~~~ Metadata for: 'R14/1078940' ~~~~~

Rec Num: R14/1078940

Title: 1408003128 - Sodium Chloride 5 mL injection - Preliminary certificate - PDF

~~~~ Metadata for: 'R14/1079764' ~~~~~

Rec Num: R14/1079764

Title: 1408003128 - Sodium chloride 5 mL injection ampoule - Letter 1 - PDF

Dear s47F

Please find attached, a copy of a letter and a preliminary laboratory report that will be mailed to you today concerning the sterility test failure for Sodium chloride for injection MS 0.9% w/v 5 mL plastic ampoule, AUST R 199991, Batch No: 1F2983003, Expiry September 2016 (TGA Sample Number 1408003128). A final laboratory report will be issued to you on completion of laboratory testing. The action that you have taken to date to ensure user safety and to assist the TGA to investigate this matter is appreciated. As explained in the letter, your early reply to this matter is requested, particularly the request that you recall the affected batch to wholesale level. If you have any further queries regarding testing of this product please do not hesitate to contact me directly on (02) 62328921 or via email s47F@tga.gov.au.

Kind regards

s4

7F

s47F

Principal Microbiologist
Microbiology
Office of Laboratories & Scientific Services

Phone: 02 6232 8921 Fax: 02 6232 8481

Email: s47F@tga.gov.au

Therapeutic Goods Administration

Department of Health
PO Box 100
Woden ACT 2606 Australia
www.tga.gov.au

From: s47F [mailto:s47F@tga.gov.au]

Sent: Wednesday, 1 October 2014 9:50 AM

To: Recalls

Subject: RE: Possible sterility test failure for Sodium chloride for injection MS 0.9% w/v 5 mL plastic ampoule, Batch No: 1F2983003, [SEC=UNCLASSIFIED]

Dear s47F

Thank you for your notification and also your calls this morning regarding the possible test failure of Batch 1F2983003

We can confirm the following with regard to this batch:

1. None of this batch has been supplied to the market

2. It has been placed in quarantine at our contracted distributor (Clifford Hallam Healthcare, Melbourne)
3. The manufacturer was informed on receipt of your email on the 30th September and we await their response today
4. s47G plans to separately test further samples of this batch at a commercial facility in Melbourne as soon as possible

Sincerely

s47F
Managing Director

s47G
s47G
Mahly NSW 2095
Phone: +61 2 9976 6876
Fax: +61 2 9976 6859
s47G

Toll Free: 1300 308 213
Phone: +64 9 377 3336
Fax: +64 9 307 1307
s47G

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From: s47G [mailto:s47G@tga.gov.au] **On Behalf Of** Recalls
Sent: Tuesday, 30 September 2014 5:24 PM
To: s47F
Cc: Recalls
Subject: Possible sterility test failure for Sodium chloride for injection MS 0.9% w/v 5 mL plastic ampoule, Batch No: 1F2983003, [SEC=UNCLASSIFIED]

Hi s47F

As discussed over the telephone, sterility test results at 6 days into 14 day incubation period indicate that the test sample for Sodium chloride for injection MS 0.9% w/v 5 mL plastic ampoule

Batch No: 1F2983003, Expiry: September 2016) will fail the Test for Sterility in that:

- microbial contamination has been detected in one of two pools of Fluid Thioglycollate Medium after 6 days of incubation;
- a wet prep from the contaminated broth indicates that the contaminant (or contaminants) is/are rod-shaped bacteria.

Important Note: These results are preliminary test results only; however, the test result to date indicates that the sterility test failure for the injection is likely to be valid sterility test failure as none of the conditions of the BP Test for Sterility that permit a sterility test to be invalidated have been met.

Based on the information above, it is recommended that s47G quarantine the above batch from further distribution.

We (TGA) will touch base with you tomorrow and discuss any further actions that are necessary.

Regards,

s47F

s47F
Recall Coordinator | Manager - Recalls Unit | Recalls & Advertising | Office of Product Review | Monitoring & Compliance Group | Therapeutic Goods Administration | PO Box 100, WODEN ACT 2606 |
www.tga.gov.au
 T: 02 6232 8636 | F: 02 6203 1451 | E: Joshua.Joy@tga.gov.au / Recalls@tga.gov.au



Do you know all Recall Actions undertaken in Australia are on the System for Australian Recall Actions (SARA)? For further information, please refer to the TGA Website <http://tga.gov.au/safety/sara.htm>

*Important: This transmission is intended only for the use of the addressee and may contain confidential or legally privileged information and has been sent in accordance with the TGA security policy.

If you are not the intended recipient, you are notified that any use or dissemination of this communication is strictly prohibited. If you receive this transmission in error please notify the author immediately and delete all copies of this transmission.*

Facsimile Reply Form

To: s47G

Attention: Regulatory Affairs Manager

Fax Number: 02 9976 6859

Postal Address: PO Box 115, Manly NSW 1655

Subject: Recall of Sodium Chloride –MS 0.9% w/v 50 x 5mL Ampoules
Batch Number: 1F2983003

From: _____
(Company)

Contact Person: _____

Telephone: _____

Fax: _____

- We **do/do not** have stock which is subject to this recall
- Stock Received: Batch _____ Qty _____
- Unused Stock Subject to Recall: Batch _____ Qty _____
- Any other relevant details: _____

Signature:

Date:

| Description | Code | Batch Number | Expiry Date | Total SOH 1/10/14 | |
|---|--------|--------------|-------------|-------------------|------|
| WATER FOR INJECTION 5ML AMPS 50 AMPS PER PACK | | | | | |
| WATER FOR INJECTION 5ML AMPS 50 AMPS PER PACK | PBL400 | 1F543050 | 31/08/2016 | 2,715 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | | | | | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254035 | 30/06/2017 | 1,812 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254034 | 30/06/2017 | 1,296 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254029 | 30/04/2017 | 1,824 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254028 | 30/04/2017 | 1,836 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254026 | 30/04/2017 | 1,834 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254025 | 30/04/2017 | 1,834 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254024 | 30/04/2017 | 1,822 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254023 | 30/04/2017 | 1,822 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254022 | 30/04/2017 | 1,822 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254021 | 30/04/2017 | 1,846 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254020 | 30/04/2017 | 1,834 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254019 | 30/04/2017 | 1,834 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254018 | 31/03/2017 | 1,824 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254017 | 31/03/2017 | 1,824 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254016 | 30/03/2017 | 1,798 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254015 | 30/03/2017 | 1,750 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254014 | 28/02/2017 | 378 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254013 | 28/02/2017 | 1,513 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254012 | 28/02/2017 | 1,726 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254011 | 28/02/2017 | 1,702 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254009 | 28/02/2017 | 1,818 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254008 | 28/02/2017 | 1,822 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254007 | 31/01/2017 | 848 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254006 | 31/01/2017 | 105 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254005 | 31/01/2017 | 1,728 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254004 | 31/01/2017 | 1,737 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254003 | 31/01/2017 | 460 | |
| WATER FOR INJECTION 10ML AMPS 50 AMPS PER PACK | PBL410 | 1T3254001 | 30/12/2016 | 19 | |
| WATER FOR INJECTION 20ML AMPS 30 AMPS PER PACK | | | | | |
| WATER FOR INJECTION 20ML AMPS 30 AMPS PER PACK | PBL420 | 1TW3294002 | 30/04/2017 | 1,350 | |
| WATER FOR INJECTION 20ML AMPS 30 AMPS PER PACK | PBL420 | 1TW3294001 | 30/04/2017 | 890 | |
| SODIUM CHLORIDE INJ 5ML AMPS 50AMPS PER PACK | | | | | |
| SODIUM CHLORIDE INJ 5ML AMPS 50AMPS PER PACK | PBL500 | 1F2983003 | 30/09/2016 | 2,841 | s47G |
| SODIUM CHLORIDE INJ 5ML AMPS 50AMPS PER PACK | PBL500 | 1F2983002 | 30/09/2016 | 2,794 | |
| SODIUM CHLORIDE INJ 5ML AMPS 50AMPS PER PACK | PBL500 | 1F2983001 | 30/09/2016 | 2,988 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | | | | | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984101 | 30/06/2017 | 1,776 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984100 | 30/06/2017 | 1,800 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984099 | 30/06/2017 | 1,788 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984098 | 30/06/2017 | 1,800 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984097 | 30/06/2017 | 1,776 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984096 | 30/06/2017 | 1,776 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984095 | 30/06/2017 | 1,812 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984085 | 31/05/2017 | 1,812 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984084 | 31/05/2017 | 1,812 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984083 | 31/05/2017 | 1,824 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984082 | 31/05/2017 | 1,788 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984081 | 31/05/2017 | 1,788 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984080 | 31/05/2017 | 1,800 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984079 | 31/05/2017 | 1,452 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984078 | 31/05/2017 | 72 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984077 | 31/05/2017 | 48 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984076 | 30/05/2017 | 1,800 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984075 | 30/05/2017 | 1,800 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984074 | 30/05/2017 | 681 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984073 | 30/05/2017 | 1,080 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984072 | 30/05/2017 | 637 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984071 | 30/05/2017 | 24 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984064 | 31/03/2017 | 1,800 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984063 | 31/03/2017 | 1,824 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984062 | 31/03/2017 | 1,824 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984061 | 31/03/2017 | 1,800 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984059 | 31/03/2017 | 1,824 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984058 | 31/03/2017 | 134 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984051 | 28/02/2017 | 480 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984050 | 28/02/2017 | 480 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984048 | 28/02/2017 | 90 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984047 | 28/02/2017 | 98 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984036 | 31/01/2017 | 108 | |
| SODIUM CHLORIDE INJ 10ML AMPS 50 AMPS PER PACK | PBL510 | 1T2984032 | 31/01/2017 | 30 | |
| SODIUM CHLORIDE INJ 20ML AMPS 30 AMPS PER PACK | | | | | |
| SODIUM CHLORIDE INJ 20ML AMPS 30 AMPS PER PACK | PBL520 | 1TW2983003 | 31/10/2016 | 233 | |
| SODIUM CHLORIDE INJ 20ML AMPS 30 AMPS PER PACK | PBL520 | 1TW2983002 | 31/10/2016 | 119 | |



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Q01019/R-20-01/010412 CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|--|--|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/54-09 |
| MATERIAL NAME : WATER FOR INJECTION - MS
STERILISED WATER FOR INJECTIONS BP -5ML | |
| Batch No. : IF543050 | AR NO. : FP/S-01/13/317 |
| Manufacturing Date : SEP-13 | Expiry Date : AUG-16 |
| Batch Size : 1000 Litre | Quantity sampled : 250 Nos. |
| Testing Date : 09/09/13 | Date of completion : 23/09/13 |

| Sr | Test | Observation | Limit |
|-----------------------------------|---------------------------|--|--|
| 1 | Appearance | A clear and colorless solution | A clear and colorless solution |
| 2 | Extractable Volume (ml) | 5.1ml | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 ml; or not less than nominal volume and not more than 110% of the nominal volume for ≥ 5 ml |
| 3 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 ml of 0.01 M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 ml of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 ml of 0.01 M hydrochloric acid |
| 4 | Conductivity | 1.152 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 ml or less at $25 \text{ }^\circ\text{C} \pm 1^\circ\text{C}$; or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10ml at $25 \text{ }^\circ\text{C} \pm 1^\circ\text{C}$ |
| 5 | Oxidisable substances | The solution remains faintly pink | The solution remains faintly pink |
| 6 | Chlorides | <0.5 ppm | Maximum 0.5 ppm |
| 7 | Nitrates | <0.2 ppm | Maximum 0.2 ppm |
| 8 | Sulphates | The solution shows no change in appearance for at least 1 h. | The solution shows no change in appearance for at least 1 h. |
| 9 | Ammonium | <0.6 ppm | For containers with a nominal volume less than 50 ml: Maximum 0.6 ppm. |
| 10 | Calcium and magnesium | A pure blue colour is produced | A pure blue colour should be produced |
| 11 | Residue on evaporation | 0.0001% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 ml or less; or maximum 3 mg (0.003 per cent) for containers with a nominal volume greater than 10 ml |
| 12 | Particulate contamination | 89 particles/container of $\geq 10\mu\text{m}$
46 particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000/container $\geq 10 \mu\text{m}$ and not more than 600/container $>25\mu\text{m}$ |
| 13 | Sterility | Sterile | Should be sterile |
| 14 | Bacterial Endotoxin | <0.25EU/ml | Less than 0.25 EU/ml |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear | The mixture remains clear |
| 17 | pH | 5.72 | Between 5.0 and 7.0 at $25 \text{ }^\circ\text{C} \pm 2^\circ\text{C}$ |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per Specification.

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s47F

 DATE: 24/09/13 | DATE: 24/09/13 | DATE: 24/09/13 | DATE: 24/09/13
 Page 1 of 1

s47G

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | | | |
|--|--------------|---|------------------|
| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/325-00 | |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML. | | | |
| Batch No. | : 1T3254035 | A.R. NO. | : FP/S-01/14/235 |
| Manufacturing Date | : JUL-14 | Expiry Date | : JUN-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125 Nos |
| Testing Date | : 11/07/14 | Completion Date | : 25/07/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL. | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.503 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0005% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 36 Particles/container of $\geq 10\mu\text{m}$
3 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.68 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

Prepared
Name

DATE:01/08/14 | DATE:01/08/14 | DATE:01/08/14 | DATE:01/08/14

Q01019/F-20-01/010412 CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | | | |
|---|---------------------|---|-------------------------|
| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/325-00 | |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | | | |
| Batch No. | : IT3254034 | A.R. NO. | : FP/S-01/14/234 |
| Manufacturing Date | : JUL-14 | Expiry Date | : JUN-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125 Nos |
| Testing Date | : 11/07/14 | Completion Date | : 25/07/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.3 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.338 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0007% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL. |
| 13 | Particulate contamination:
Sub-visible particles | 75 Particles/container of $\geq 10\mu\text{m}$
37 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.66 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | s47F | Review | s47F |
| Name | | Name | |
| DATE:01/08/14 | DATE:01/08/14 | DATE:01/08/14 | DATE:01/08/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | | | |
|---|--------------|---|------------------|
| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/325-00 | |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | | | |
| Batch No. | : 1T3254029 | A.R. NO. | : FP/S-01/14/177 |
| Manufacturing Date | : MAY-14 | Expiry Date | : APR-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125 Nos |
| Testing Date | : 29/05/14 | Completion Date | : 12/06/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.3 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.090 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0003% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 51 Particles/container of $\geq 10\mu\text{m}$
18 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.78 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|---------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1ppm | Not more than 0.1 ppm |
|----|-------------------------|---------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | s47F | | |
| Name | | | |
| DATE:20/06/14 | DATE:20/06/14 | DATE:20/06/14 | DATE:20/06/14 |

Q01019/F-20-01/010412 CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254028 | A.R. NO. : FP/S-01/14/176 |
| Manufacturing Date : MAY-14 | Expiry Date : APR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 29/05/14 | Completion Date : 12/06/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.093 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0004% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 98 Particles/container of $\geq 10\mu\text{m}$
20 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.77 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|----------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |
|----|-------------------------|----------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | | | |
| Name : | | | |
| DATE:20/06/14 | DATE:20/06/14 | DATE:20/06/14 | DATE:20/06/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : IT3254026 | A.R. NO. : FP/S-01/14/166 |
| Manufacturing Date : MAY-14 | Expiry Date : APR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 20/05/14 | Completion Date : 03/06/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.932 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0006% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 225 Particles/container of $\geq 10\mu\text{m}$
151 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.54 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|----------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |
|----|-------------------------|----------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | | | |
| Name : | | | |
| DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254025 | A.R. NO. : FP/S-01/14/165 |
| Manufacturing Date : MAY-14 | Expiry Date : APR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 19/05/14 | Completion Date : 02/06/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.948 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0004% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 195 Particles/container of $\geq 10\mu\text{m}$
52 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.52 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|----------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |
|----|-------------------------|----------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | | | |
| Name : | | | |
| DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254024 | A.R. NO. : FP/S-01/14/164 |
| Manufacturing Date : MAY-14 | Expiry Date : APR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 18/05/14 | Completion Date : 02/06/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.950 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0003% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 230 Particles/container of $\geq 10\mu\text{m}$
54 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.70 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|----------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |
|----|-------------------------|----------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | | | |
| Name : | | | |
| DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254023 | A.R. NO. : FP/S-01/14/163 |
| Manufacturing Date : MAY-14 | Expiry Date : APR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 18/05/14 | Completion Date : 02/06/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.957 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0004% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 45 Particles/container of $\geq 10\mu\text{m}$
17 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.68 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|----------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |
|----|-------------------------|----------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | | | |
| Name : | | | |
| DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**
 DEPARTMENT : Quality Control Reference Specification No: FP/SPEC/325-00

**TITLE : WATER FOR INJECTION -MS
 (STERILISED WATER FOR INJECTIONS BP)-10 ML**

| | |
|-----------------------------|----------------------------|
| Batch No. : 1T3254022 | A.R. NO. : FP/S-01/14/162 |
| Manufacturing Date : MAY-14 | Expiry Date : APR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 17/05/14 | Completion Date : 31/05/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.748 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0007% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 126 Particles/container of $\geq 10\mu\text{m}$
60 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.65 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|-------------------|---------------|----------------|-------------------|
| Prepared By: s47F | Checked: s47F | Reviewed: s47F | Approved By: s47F |
| Name : | Name : | Name : | Name : |
| DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254021 | A.R. NO. : FP/S-01/14/161 |
| Manufacturing Date : MAY-14 | Expiry Date : APR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 16/05/14 | Completion Date : 30/05/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.953 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0004% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 165 Particles/container of $\geq 10\mu\text{m}$
112 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

| ADDITIONAL TEST AS PER USP | | | |
|----------------------------|-------------------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.62 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|---|---|--|---|
| Prepared By: S47F | Checked: S47F | Reviewed: S47F | Approved By: S47F |
| Name: S47F | Name: S47F | Name: S47F | Name: S47F |
| DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254020 | A.R. NO. : FP/S-01/14/160 |
| Manufacturing Date : MAY-14 | Expiry Date : APR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 15/05/14 | Completion Date : 29/05/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.014 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C + 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0004% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 150 Particles/container of $\geq 10\mu\text{m}$
89 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.53 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|---|---|--|---|
| Prepared By: s47F | Check s47F | Revised s47F | Approved By: s47F |
| Name : s47F | Name : s47F | Name : s47F | Name : s47F |
| DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254019 | A.R. NO. : FP/S-01/14/159 |
| Manufacturing Date : MAY-14 | Expiry Date : APR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 15/05/14 | Completion Date : 29/05/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.032 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0006% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 114 Particles/container of $\geq 10\mu\text{m}$
70 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.50 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|----------------------------------|------------------------------|-------------------------------|-----------------------------------|
| Prepared By
Name : [Redacted] | Checked
Name : [Redacted] | Reviewed
Name : [Redacted] | Approved By:
Name : [Redacted] |
| DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 | DATE:05/06/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | | | |
|---|-------------------|------------------------------------|------------------|
| DEPARTMENT | : Quality Control | Reference Specification No: | FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | | | |
| Batch No. | : IT3254018 | A.R. NO. | : FP/S-01/14/127 |
| Manufacturing Date | : APR-14 | Expiry Date | : MAR-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125 Nos |
| Testing Date | : 06/04/14 | Completion Date | : 21/04/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|---|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.082 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C, or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1 °C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0004% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL. | Less than 0.25 IU/mL. |
| 13 | Particulate contamination:
Sub-visible particles | 34 Particles/container of $\geq 10\mu\text{m}$
15 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.88 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|-------------------|---------------|----------------|---------------|
| Prepared By: s47F | Checked: s47F | Reviewed: s47F | |
| Name: | Name: | Name: | |
| Date:29/04/14 | Date:29/04/14 | Date:29/04/14 | Date:29/04/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | | | |
|---|-------------------|------------------------------------|------------------|
| DEPARTMENT | : Quality Control | Reference Specification No: | FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | | | |
| Batch No. | : 1T3254017 | A.R. NO. | : FP/S-01/14/126 |
| Manufacturing Date | : APR-14 | Expiry Date | : MAR-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125 Nos |
| Testing Date | : 05/04/14 | Completion Date | : 19/04/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|--|---|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.136 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C, or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1 °C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0008% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL. |
| 13 | Particulate contamination:
Sub-visible particles | 43 Particles/container of $\geq 10\mu\text{m}$
12 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.82 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|---------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1ppm | Not more than 0.1 ppm |
|----|-------------------------|---------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | Checked | | |
| Name | Name | | |
| Date:29/04/14 | Date:29/04/14 | Date:29/04/14 | Date:29/04/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | | | |
|---|-------------------|------------------------------------|------------------|
| DEPARTMENT | : Quality Control | Reference Specification No: | FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | | | |
| Batch No. | : 1T3254016 | A.R. NO. | : FP/S-01/14/125 |
| Manufacturing Date | : APR-14 | Expiry Date | : MAR-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125 Nos |
| Testing Date | : 04/04/14 | Completion Date | : 18/04/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|---|---|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow. it becomes red on the addition of 0.1mL of 0.01M sodium hydroxide. | If the solution is yellow. it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red. it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.304 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL. at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL.: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0006% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL. or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL. | Less than 0.25 EU/mL. |
| 13 | Particulate contamination:
Sub-visible particles | 43 Particles/container of $\geq 10\mu\text{m}$
5 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.73 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | | | | |
|-------------|------|---------------|-------------|------|---------------|---------------|
| Prepared By | Name | Date:29/04/14 | Reviewed By | Name | Date:29/04/14 | Date:29/04/14 |
|-------------|------|---------------|-------------|------|---------------|---------------|

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|--|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254015 | A.R. NO. : FP/S-01/14/124 |
| Manufacturing Date : APR-14 | Expiry Date : MAR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 04/04/14 | Completion Date : 18/04/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.187 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL.: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0010% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL. | Less than 0.25 EU/mL. |
| 13 | Particulate contamination:
Sub-visible particles | 70 Particles/container of $\geq 10\mu\text{m}$
8 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.66 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|----------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |
|----|-------------------------|----------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared | s47F | Review | s47F |
| Name | | Name: | |
| Date:29/04/14 | Date:29/04/14 | Date:29/04/14 | Date:29/04/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254014 | A.R. NO. : FP/S-01/14/106 |
| Manufacturing Date : MAR-14 | Expiry Date : FEB-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 18/03/14 | Completion Date : 02/04/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|---|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 ml. of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.358 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL. at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL.: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0008% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 ml. or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 44 Particles/container of $\geq 10\mu\text{m}$
29 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.96 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

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|---------------|---------------|---------------|---------------|
| Prepared By | | | |
| Name | | | |
| Date:29/04/14 | Date:29/04/14 | Date:29/04/14 | Date:29/04/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254013 | A.R. NO. : FP/S-01/14/093 |
| Manufacturing Date : MAR-14 | Expiry Date : FEB-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 09/03/14 | Completion Date : 24/03/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 ml. | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1ml. of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 ml. of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 ml. of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.825 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 ml. or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 ml. at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 ml.: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0008% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 ml. or less. |
| 12 | Bacterial Endotoxins | <0.25 EU/ml. | Less than 0.25 EU/ml. |
| 13 | Particulate contamination:
Sub-visible particles | 69 Particles/container of $\geq 10\mu\text{m}$
12 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.76 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

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| Prepared | | | |
| Name | | | |
| DATE:05/05/14 | DATE:05/05/14 | DATE:05/05/14 | DATE:05/05/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254012 | A.R. NO. : FP/S-01/14/092 |
| Manufacturing Date : MAR-14 | Expiry Date : FEB-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 08/03/14 | Completion Date : 22/03/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|---|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 ml. | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 ml. of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 ml. of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.019 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 ml. at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 ml.: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0004% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 ml. or less. |
| 12 | Bacterial Endotoxins | <0.25EU/ml. | Less than 0.25 EU/ml. |
| 13 | Particulate contamination:
Sub-visible particles | 55 Particles/container of $\geq 10\mu\text{m}$
11 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.97 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

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|---------------|---------------|---------------|---------------|
| Prepared By: | | | |
| Name : | | | |
| DATE:05/05/14 | DATE:05/05/14 | DATE:05/05/14 | DATE:05/05/14 |

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Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254011 | A.R. NO. : FP/S-01/14/091 |
| Manufacturing Date : MAR-14 | Expiry Date : FEB-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 07/03/14 | Completion Date : 21/03/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL. | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1mL. of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL. of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL. of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.906 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL. or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL. at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL.: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0004% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL. or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL. | Less than 0.25 EU/mL. |
| 13 | Particulate contamination:
Sub-visible particles | 41 Particles/container of $\geq 10\mu\text{m}$
5 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.89 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | | | |
| Name | | | |
| DATE:05/05/14 | DATE:05/05/14 | DATE:05/05/14 | DATE:05/05/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254009 | A.R. NO. : FP/S-01/14/089 |
| Manufacturing Date : MAR-14 | Expiry Date : FEB-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 06/03/14 | Completion Date : 20/03/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.032 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0006% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 54 Particles/container of $\geq 10\mu\text{m}$
15 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.81 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|---------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1ppm | Not more than 0.1 ppm |
|----|-------------------------|---------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared | | | |
| Name | | | |
| Date:08/04/14 | Date:08/04/14 | Date:08/04/14 | Date:08/04/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254008 | A.R. NO. : FP/S-01/14/088 |
| Manufacturing Date : MAR-14 | Expiry Date : FEB-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 06/03/14 | Completion Date : 20/03/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.083 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0002% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 39 Particles/container of $\geq 10\mu\text{m}$
5 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.75 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|----------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |
|----|-------------------------|----------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | | | |
| Name | | | |
| Date:08/04/14 | Date:08/04/14 | Date:08/04/14 | Date:08/04/14 |

Q01019/F-20-01/010412 CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254007 | A.R. NO. : FP/S-01/14/084 |
| Manufacturing Date : FEB-14 | Expiry Date : JAN-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 02/03/14 | Completion Date : 18/03/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.911 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C + 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0005% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 43 Particles/container of $\geq 10\mu\text{m}$
23 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.73 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|-------------------|---------------|---------------|---------------|
| Prepared By: s47F | | | |
| Name : | | | |
| DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 |

Q01019/F-20-01/010412 CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

DEPARTMENT : Quality Control Reference Specification No: FP/SPEC/325-00

**TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML**

| | |
|------------------------------------|-----------------------------------|
| Batch No. : 1T3254006 | A.R. NO. : FP/S-01/14/083 |
| Manufacturing Date : FEB-14 | Expiry Date : JAN-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 01/03/14 | Completion Date : 18/03/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.801 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0007% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 41 Particles/container of $\geq 10\mu\text{m}$
25 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.76 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|---------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1ppm | Not more than 0.1 ppm |
|----|-------------------------|---------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | |
|---------------|---------------|
| Prepared By: | |
| Name : | |
| DATE:28/03/14 | DATE:28/03/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254005 | A.R. NO. : FP/S-01/14/082 |
| Manufacturing Date : FEB-14 | Expiry Date : JAN-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 01/03/14 | Completion Date : 18/03/14 |

| Sr. No. | Test | Observation | Specification |
|---------|--|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.809 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0004% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination: Sub-visible particles | 23 Particles/container of $\geq 10\mu\text{m}$
9 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.80 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|---------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1ppm | Not more than 0.1 ppm |
|----|-------------------------|---------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | | | |
| Name : | | | |
| DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 |

Q01019/F-20-01/010412 CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254004 | A.R. NO. : FP/S-01/14/081 |
| Manufacturing Date : FEB-14 | Expiry Date : JAN-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 28/02/14 | Completion Date : 14/03/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|--|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.144 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0007% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination: Sub-visible particles | 133 Particles/container of $\geq 10\mu\text{m}$
22 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.73 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | | | |
| Name | | | |
| DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 |

Q01019/F-20-01/010412 CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254003 | A.R. NO. : FP/S-01/14/080 |
| Manufacturing Date : FEB-14 | Expiry Date : JAN-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 27/02/14 | Completion Date : 13/03/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.148 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0006% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 200 Particles/container of $\geq 10\mu\text{m}$
14 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.72 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | | | |
| Name | | | |
| DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/325-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-10 ML | |
| Batch No. : 1T3254001 | A.R. NO. : FP/S-01/14/034 |
| Manufacturing Date : JAN-14 | Expiry Date : DEC-16 |
| Batch Size : 1000 Litre | Quantity sampled : 125 Nos |
| Testing Date : 24/01/14 | Completion Date : 08/02/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 10.1 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.139 $\mu\text{s.cm}^{-1}$ | Maximum 25 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume of 10 mL or less at 25 °C \pm 1 °C. or maximum 5 $\mu\text{s.cm}^{-1}$ for containers with a nominal volume greater than 10 mL at 25 °C \pm 1°C. |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | For containers with a nominal volume less than 50 mL: Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0003% | Maximum 4 mg (0.004 per cent) for containers with a nominal volume of 10 mL or less. |
| 12 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 217 Particles/container of $\geq 10\mu\text{m}$
2 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |
| ADDITIONAL TEST AS PER USP | | | |
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.88 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |
| ADDITIONAL TEST AS PER IP | | | |
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|-------------------------|---------------|---------------|---------------|
| Prepared By: [REDACTED] | | | |
| Name: [REDACTED] | | | |
| DATE:27/02/14 | DATE:27/02/14 | DATE:27/02/14 | DATE:27/02/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/329-00 |
| TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-20 ML | |
| Batch No. : 1TW3294002 | A.R. NO. : FP/S-01/14/168 |
| Manufacturing Date : MAY-14 | Expiry Date : APR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 80 Nos |
| Testing Date : 22/05/14 | Completion Date : 05/06/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|--|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 20.2 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 1.162 $\mu\text{s.cm}^{-1}$ | Maximum 5 $\mu\text{s.cm}^{-1}$ |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5 ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2 ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6 ppm | Maximum 0.6 ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0009% | Maximum 3mg (0.003 percent) |
| 12 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 76 Particles/container of $\geq 10\mu\text{m}$
12 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.74 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|----------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |
|----|-------------------------|----------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | S47F | | |
| Name | | | |
| DATE:20/06/14 | DATE:20/06/14 | DATE:20/06/14 | DATE:20/06/14 |

Q01019/F-20-01/010412 **CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT****DEPARTMENT** : Quality Control **Reference Specification No:** FP/SPEC/329-00**TITLE : WATER FOR INJECTION -MS
(STERILISED WATER FOR INJECTIONS BP)-20 ML**

| | | | |
|---------------------------|---------------------|-------------------------|-------------------------|
| Batch No. | : 1TW3294001 | A.R. NO. | : FP/S-01/14/167 |
| Manufacturing Date | : MAY-14 | Expiry Date | : APR-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 80 Nos |
| Testing Date | : 21/05/14 | Completion Date | : 04/06/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|---|--|
| 01 | Appearance | A clear and colorless solution. | A clear and colorless solution |
| 02 | Extractable Volume | 20.3 mL | Not less than nominal volume and not more than 110% of the nominal volume |
| 03 | Acidity or Alkalinity | The solution is yellow, it becomes red on the addition of 0.1 mL of 0.01M sodium hydroxide. | If the solution is yellow, it becomes red on the addition of 0.1 mL of 0.01 M sodium hydroxide; if red, it becomes yellow on the addition of 0.15 mL of 0.01 M hydrochloric acid |
| 04 | Conductivity | 0.948 $\mu\text{s.cm}^{-1}$ | Maximum 5 $\mu\text{s.cm}^{-1}$ |
| 05 | Oxidisable Substances | The solution remains faintly pink. | The solution remains faintly pink |
| 06 | Chlorides | <0.5ppm | Maximum 0.5 ppm |
| 07 | Nitrates | <0.2ppm | Maximum 0.2 ppm |
| 08 | Sulfates | The solution shows no change in appearance for at least 1 hour. | The solution shows no change in appearance for at least 1 h. |
| 09 | Ammonium | <0.6ppm | Maximum 0.6ppm |
| 10 | Calcium and Magnesium | A pure blue colour is produced. | A pure blue colour should be produced |
| 11 | Residue on Evaporation | 0.0007% | Maximum 3mg (0.003 percent) |
| 12 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 13 | Particulate contamination:
Sub-visible particles | 60 Particles/container of $\geq 10\mu\text{m}$
7 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than 10 μm and not more than 600 per container equal to or greater than 25 μm |
| 14 | Sterility | Sterile | Should be sterile |

ADDITIONAL TEST AS PER USP

| | | | |
|----|----------------|----------------------------|---|
| 15 | Calcium | No turbidity is produced. | No turbidity should be produced |
| 16 | Carbon Dioxide | The mixture remains clear. | The mixture remains clear |
| 17 | pH | 5.52 | Between 5.0 and 7.0 at 25 °C \pm 2 °C |

ADDITIONAL TEST AS PER IP

| | | | |
|----|-------------------------|----------|-----------------------|
| 18 | Heavy metals (Method D) | <0.1 ppm | Not more than 0.1 ppm |
|----|-------------------------|----------|-----------------------|

Report : The product complies with the prescribed standard of the quality as per above specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | s47F | | |
| Name : | s47F | | |
| DATE:20/06/14 | DATE:20/06/14 | DATE:20/06/14 | DATE:20/06/14 |

s47G

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | | | |
|--|--------------|---|------------------|
| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-00 | |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1F2983003 | A.R. NO. | : FP/S-01/13/366 |
| Manufacturing Date | : OCT-13 | Expiry Date | : SEP-16 |
| Batch Size | : 1000 Litre | Quantity sampled | : 250Nos. |
| Testing Date | : 23/10/13 | Date of completion | : 06/11/13 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 5.1mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL. |
| 04 | Assay of Sodium Chloride | 99.0% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/ml. |
| 06 | Particulate Contamination | 5Particles/container of ≥10µm
1Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.67 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

s47F

| | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|
| Prepared By | [Redacted] | | |
| Name | [Redacted] | | |
| Date: 14/05/14 | Date: 14/05/14 | Date: 14/05/14 | Date: 14/05/14 |

s47G

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/298-00 |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | |
| .Batch No. : 1F2983002 | A.R. NO. : FP/S-01/13/365 |
| Manufacturing Date : OCT-13 | Expiry Date : SEP-16 |
| Batch Size : 1000 Litre | Quantity sampled : 250Nos. |
| Testing Date : 22/10/13 | Date of completion : 06/11/13 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 5.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.0% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 1 Particles/container of ≥10µm
2 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.69 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|----------------|----------------|----------------|----------------|
| Prepared By: | s47F | | |
| Name : | s47F | | |
| Date: 14/05/14 | Date: 14/05/14 | Date: 14/05/14 | Date: 14/05/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/298-00 |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | |
| .Batch No. : 1F2983001 | A.R. NO. : FP/S-01/13/364 |
| Manufacturing Date : OCT-13 | Expiry Date : SEP-16 |
| Batch Size : 1000 Litre | Quantity sampled : 250Nos. |
| Testing Date : 21/10/13 | Date of completion : 06/11/13 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 5.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.0% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 5Particles/container of $\geq 10\mu\text{m}$
0.67Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.65 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Storage: Kept in well-closed containers and stored at a temperature not exceeding 25°C .
Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | s47F | Review | s47F |
| Name : | | Name: | |
| Date:27/02/14 | Date:27/02/14 | Date:27/02/14 | Date:27/02/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|--|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V (SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. : 1T2984101 | | A.R. NO. : FP/S-01/14/248 | |
| Manufacturing Date : JUL-14 | | Expiry Date : JUN-17 | |
| Batch Size : 1000 Litre | | Quantity sampled : 125Nos. | |
| Testing Date : 22/07/14 | | Date of completion : 05/08/14 | |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5mL. |
| 04 | Assay of Sodium Chloride | 100.6% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL. |
| 06 | Particulate Contamination | 80 Particles/container of ≥10µm
62 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.69 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | | Review | |
| Name | | Name: | |
| DATE:21/08/14 | DATE:21/08/14 | DATE:21/08/14 | DATE:21/08/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|--|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984100 | A.R. NO. | : FP/S-01/14/247 |
| Manufacturing Date | : JUL-14 | Expiry Date | : JUN-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 21/07/14 | Date of completion | : 04/08/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.9% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 178 Particles/container of $\geq 10\mu\text{m}$
125 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.79 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | | Review | |
| Name | | Name: | |
| DATE:21/08/14 | DATE:21/08/14 | DATE:21/08/14 | DATE:21/08/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | | | |
|---|--------------|---|------------------|
| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984099 | A.R. NO. | : FP/S-01/14/246 |
| Manufacturing Date | : JUL-14 | Expiry Date | : JUN-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 20/07/14 | Date of completion | : 04/08/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5mL |
| 04 | Assay of Sodium Chloride | 99.9% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 193 Particles/container of ≥10µm
30 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.74 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | Checked | Reviewed | |
| Name | Name: | Name: | |
| DATE:21/08/14 | DATE:21/08/14 | DATE:21/08/14 | DATE:21/08/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|--|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/298-01 |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | |
| Batch No. : 1T2984098 | A.R. NO. : FP/S-01/14/245 |
| Manufacturing Date : JUL-14 | Expiry Date : JUN-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125Nos. |
| Testing Date : 19/07/14 | Date of completion : 02/08/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5mL |
| 04 | Assay of Sodium Chloride | 99.3% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 235 Particles/container of ≥10µm
164 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.78 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared by | s47F | Review | s47F |
| Name | | Name: | |
| DATE:21/08/14 | DATE:21/08/14 | DATE:21/08/14 | DATE:21/08/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| Batch No. | : IT2984097 | A.R. NO. | : FP/S-01/14/241 |
| Manufacturing Date | : JUL-14 | Expiry Date | : JUN-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 16/07/14 | Date of completion | : 30/07/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1ml. | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL. |
| 04 | Assay of Sodium Chloride | 100.6% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL. | Less than 0.25 EU/mL. |
| 06 | Particulate Contamination | 226 Particles/container of $\geq 10\mu\text{m}$
161 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.71 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | s47F | Review | s47F |
| Name: | | Name: | |
| DATE:01/08/14 | DATE:01/08/14 | DATE:01/08/14 | DATE:01/08/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| Batch No. | : IT2984096 | A.R. NO. | : FP/S-01/14/240 |
| Manufacturing Date | : JUL-14 | Expiry Date | : JUN-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 15/07/14 | Date of completion | : 29/07/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2ml. | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL. |
| 04 | Assay of Sodium Chloride | 99.9% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL. |
| 06 | Particulate Contamination | 121 Particles/container of $\geq 10\mu\text{m}$
88 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.87 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | s47F | Review | s47F |
| Name | | Name: | |
| DATE:01/08/14 | DATE:01/08/14 | DATE:01/08/14 | DATE:01/08/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| Batch No. | : IT2984095 | A.R. NO. | : FP/S-01/14/239 |
| Manufacturing Date | : JUL-14 | Expiry Date | : JUN-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 15/07/14 | Date of completion | : 29/07/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2ml. | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.3% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/ml. | Less than 0.25 EU/ml. |
| 06 | Particulate Contamination | 275 Particles/container of $\geq 10\mu\text{m}$
217 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.76 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|-------------------|---------------|---------------|---------------|
| Prepared By: s47F | | Review: s47F | |
| Name: s47F | | Name: s47F | |
| DATE:01/08/14 | DATE:01/08/14 | DATE:01/08/14 | DATE:01/08/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984085 | A.R. NO. | : FP/S-01/14/197 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 13/06/14 | Date of completion | : 27/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 100.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 147 Particles/container of $\geq 10\mu\text{m}$
89 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.79 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | |
|-------------------|-------------------|
| Prepared By: s47F | Review Name: s47F |
| DATE: 02/07/14 | DATE: 02/07/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984084 | A.R. NO. | : FP/S-01/14/196 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 12/06/14 | Date of completion | : 26/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5mL |
| 04 | Assay of Sodium Chloride | 100.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 64 Particles/container of ≥10µm
46 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.78 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|-------------------|---------------|-------------------|---------------|
| Prepared By: s47F | | Reviewed By: s47F | |
| Name: [Redacted] | | Name: [Redacted] | |
| DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984083 | A.R. NO. | : FP/S-01/14/195 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 12/06/14 | Date of completion | : 26/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5mL |
| 04 | Assay of Sodium Chloride | 100.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 21 Particles/container of ≥10µm
11 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.78 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | s47F | Review | s47F |
| Name : | | Name: | |
| DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 |

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. : 1T2984082 | | A.R. NO. : FP/S-01/14/194 | |
| Manufacturing Date : JUN-14 | | Expiry Date : MAY-17 | |
| Batch Size : 1000 Litre | | Quantity sampled : 125Nos. | |
| Testing Date : 11/06/14 | | Date of completion : 25/06/14 | |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.8% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 41 Particles/container of $\geq 10\mu\text{m}$
21 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.76 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | |
|-------------------|---------------|
| Prepared By: s47F | Review: s47F |
| Name: | Name: |
| DATE:02/07/14 | DATE:02/07/14 |
| DATE:02/07/14 | DATE:02/07/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| Batch No. | : 1T2984081 | A.R. NO. | : FP/S-01/14/193 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 10/06/14 | Date of completion | : 24/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.4mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.2% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 131 Particles/container of $\geq 10\mu\text{m}$
62 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.73 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | | Review | |
| Name | | Name: | |
| DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984080 | A.R. NO. | : FP/S-01/14/192 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 09/06/14 | Date of completion | : 23/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 100.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 100 Particles/container of $\geq 10\mu\text{m}$
61 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.78 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|-------------------|---------------|---------------|---------------|
| Prepared By: s47F | | Review: s47F | |
| Name : | | Name: | |
| DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|--|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984079 | A.R. NO. | : FP/S-01/14/191 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 09/06/14 | Date of completion | : 23/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 100.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 55 Particles/container of $\geq 10\mu\text{m}$
25 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.78 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | s47F | Review | s47F |
| Name : | | Name: | |
| DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|--|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/298-01 |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | |
| .Batch No. : 1T2984078 | A.R. NO. : FP/S-01/14/190 |
| Manufacturing Date : JUN-14 | Expiry Date : MAY-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125Nos. |
| Testing Date : 08/06/14 | Date of completion : 22/06/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.3mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.9% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | < 0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 109 Particles/container of $\geq 10\mu\text{m}$
66 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.78 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | < 0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | < 2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|----------------|----------------|----------------|----------------|
| Prepared By | s47F | Revi | s47F |
| Name | | Nam | |
| DATE: 15/07/14 | DATE: 15/07/14 | DATE: 15/07/14 | DATE: 15/07/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|--|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984077 | A.R. NO. | : FP/S-01/14/189 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 07/06/14 | Date of completion | : 21/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5mL |
| 04 | Assay of Sodium Chloride | 99.9% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 86 Particles/container of ≥10µm
44 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.78 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | s47F | Review | s47F |
| Name : | | Name | |
| DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 | DATE:02/07/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | | | |
|---|-------------------|------------------------------------|------------------|
| DEPARTMENT | : Quality Control | Reference Specification No: | FP/SPEC/298-01 |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| Batch No. | : 1T2984076 | A.R. NO. | : FP/S-01/14/188 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 06/06/14 | Date of completion | : 20/06/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5mL |
| 04 | Assay of Sodium Chloride | 100.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 17 Particles/container of ≥10µm
12 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.80 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| s47F | | s47F | |
| Prepared E | | Review | |
| Name | | Name: | |
| Date:24/06/14 | Date:24/06/14 | Date:24/06/14 | Date:24/06/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984075 | A.R. NO. | : FP/S-01/14/187 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 06/06/14 | Date of completion | : 20/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.3mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 100.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 89 Particles/container of $\geq 10\mu\text{m}$
63 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.72 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|-------------------|----------------|----------------|----------------|
| Prepared By: s47F | | Review: s47F | |
| Name: | | Name: | |
| Date: 24/06/14 | Date: 24/06/14 | Date: 24/06/14 | Date: 24/06/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|--|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984074 | A.R. NO. | : FP/S-01/14/186 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 05/06/14 | Date of completion | : 19/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 100.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 7 Particles/container of $\geq 10\mu\text{m}$
2 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.68 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | |
|-------------------|-------------------|
| Prepared By: s47F | Reviewed By: s47F |
| Name : | Name : |
| Date: 24/06/14 | Date: 24/06/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT**DEPARTMENT : Quality Control** Reference Specification No: **FP/SPEC/298-01****TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V**
(SODIUM CHLORIDE INJECTION BP)

| | | | |
|---------------------------|---------------------|---------------------------|-------------------------|
| .Batch No. | : 1T2984073 | A.R. NO. | : FP/S-01/14/185 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 04/06/14 | Date of completion | : 18/06/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.9% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 104 Particles/container of $\geq 10\mu\text{m}$
66 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.76 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|----------------|----------------|----------------|----------------|
| Prepared By | s47F | Review | s47F |
| Name | | Name: | |
| Date: 24/06/14 | Date: 24/06/14 | Date: 24/06/14 | Date: 24/06/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984072 | A.R. NO. | : FP/S-01/14/184 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 04/06/14 | Date of completion | : 18/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 100.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 43 Particles/container of $\geq 10\mu\text{m}$
17 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.80 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|-------------------|----------------|----------------|----------------|
| Prepared By: s47F | | Review: s47F | |
| Name: | | Name: | |
| Date: 24/06/14 | Date: 24/06/14 | Date: 24/06/14 | Date: 24/06/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|--|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984071 | A.R. NO. | : FP/S-01/14/183 |
| Manufacturing Date | : JUN-14 | Expiry Date | : MAY-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 03/06/14 | Date of completion | : 17/06/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.3mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.2% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 23 Particles/container of $\geq 10\mu\text{m}$
9 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.97 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | |
|-------------------|---------------|
| Prepared By: s47F | Review: s47F |
| Name : | Name: |
| Date:24/06/14 | Date:24/06/14 |
| Date:24/06/14 | Date:24/06/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| Batch No. : IT2984064 | | A.R. NO. : FP/S-01/14/141 | |
| Manufacturing Date : APR-14 | | Expiry Date : MAR-17 | |
| Batch Size : 1000 Litre | | Quantity sampled : 125Nos. | |
| Testing Date : 18/04/14 | | Date of completion : 02/05/14 | |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 ml. or Not less than nominal volume and not more than 110% of the nominal volume for > 5 ml. |
| 04 | Assay of Sodium Chloride | 99.1% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/ml. | Less than 0.25 EU/ml. |
| 06 | Particulate Contamination | 30 Particles/container of $\geq 10\mu\text{m}$
3 Particles/container of $>25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.69 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | |
|-------------------|---------------|
| Prepared By: s47F | Review: s47F |
| Name : | Name : |
| Date:05/05/14 | Date:05/05/14 |
| Date:05/05/14 | Date:05/05/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

DEPARTMENT : Quality Control **Reference Specification No:** FP/SPEC/298-01

TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP)

| | |
|-----------------------------|-------------------------------|
| .Batch No. : IT2984063 | A.R. NO. : FP/S-01/14/140 |
| Manufacturing Date : APR-14 | Expiry Date : MAR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125Nos. |
| Testing Date : 17/04/14 | Date of completion : 01/05/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2ml. | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL, or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL. |
| 04 | Assay of Sodium Chloride | 99.1% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/ml. |
| 06 | Particulate Contamination | 3 Particles/container of $\geq 10\mu\text{m}$
0.67 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 600 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.61 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | |
|-------------------|----------------|
| Prepared By: s47F | Review: s47F |
| Name: s47F | Name: s47F |
| Date: 05/05/14 | Date: 05/05/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| Batch No. | : 1T2984062 | A.R. NO. | : FP/S-01/14/139 |
| Manufacturing Date | : APR-14 | Expiry Date | : MAR-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 16/04/14 | Date of completion | : 01/05/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL. |
| 04 | Assay of Sodium Chloride | 98.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL. | Less than 0.25 EU/mL. |
| 06 | Particulate Contamination | 7 Particles/container of $\geq 10\mu\text{m}$
0.67 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.63 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | | | |
| Name | | | |
| Date:05/05/14 | Date:05/05/14 | Date:05/05/14 | Date:05/05/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/298-01 |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | |
| .Batch No. : IT2984061 | A.R. NO. : FP/S-01/14/138 |
| Manufacturing Date : APR-14 | Expiry Date : MAR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125Nos. |
| Testing Date : 16/04/14 | Date of completion : 01/05/14 |

| Sr. No. | Test | Observation | Specification |
|---------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 ml. or Not less than nominal volume and not more than 110% of the nominal volume for > 5mL. |
| 04 | Assay of Sodium Chloride | 98.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/ml. |
| 06 | Particulate Contamination | 3 Particles/container of ≥10µm
0 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |

ADDITIONAL TESTS AS PER IP

| | | | |
|----|--------------|---------|-----------------------|
| 08 | pH | 5.63 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |

ADDITIONAL TEST AS PER USP

| | | | |
|----|------|-------|---------------------|
| 10 | Iron | <2ppm | Not more than 2 ppm |
|----|------|-------|---------------------|

Report: The product complies with the prescribed standard of the quality as per specification.

s47F

| | | | |
|----------------------|----------------------|----------------------|----------------------|
| Prepared By: | | | |
| Name : | | | |
| Date:05/05/14 | Date:05/05/14 | Date:05/05/14 | Date:05/05/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

DEPARTMENT : Quality Control Reference Specification No: FP/SPEC/298-01

TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP)

| | | | |
|--------------------|--------------|--------------------|------------------|
| Batch No. | : 1T2984059 | A.R. NO. | : FP/S-01/14/133 |
| Manufacturing Date | : APR-14 | Expiry Date | : MAR-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 11/04/14 | Date of completion | : 25/04/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1ml. | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL, or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL. |
| 04 | Assay of Sodium Chloride | 98.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/ml. | Less than 0.25 EU/ml. |
| 06 | Particulate Contamination | 47 Particles/container of $\geq 10\mu\text{m}$
7 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.75 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|--------------|--------|--------------|--------|
| Prepared By: | s47F | Reviewed By: | s47F |
| Name: | | Name: | |
| Date: | 5/5/14 | Date: | 5/5/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | |
|---|---|
| DEPARTMENT : Quality Control | Reference Specification No: FP/SPEC/298-01 |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | |
| .Batch No. : IT2984058 | A.R. NO. : FP/S-01/14/132 |
| Manufacturing Date : APR-14 | Expiry Date : MAR-17 |
| Batch Size : 1000 Litre | Quantity sampled : 125Nos. |
| Testing Date : 11/04/14 | Date of completion : 25/04/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 ml. or Not less than nominal volume and not more than 110% of the nominal volume for > 5 ml. |
| 04 | Assay of Sodium Chloride | 99.1% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/ml. |
| 06 | Particulate Contamination | 45 Particles/container of $\geq 10\mu\text{m}$
3 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.72 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By | s47F | Review | s47F |
| Name | | Name: | |
| Date:05/05/14 | Date:05/05/14 | Date:05/05/14 | Date:05/05/14 |

s47G

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|--|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984051 | A.R. NO. | : FP/S-01/14/103 |
| Manufacturing Date | : MAR-14 | Expiry Date | : FEB-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 17/03/14 | Date of completion | : 01/04/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL. |
| 04 | Assay of Sodium Chloride | 100.2% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/ml. |
| 06 | Particulate Contamination | 16 Particles/container of $\geq 10\mu\text{m}$
5 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.81 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

s47F

| | | | |
|---------------|---------------|---------------|---------------|
| Prepared By: | | Review | |
| Name : | | Name: | |
| Date:05/05/14 | Date:05/05/14 | Date:05/05/14 | Date:05/05/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | | | |
|---|-------------------|------------------------------------|------------------|
| DEPARTMENT | : Quality Control | Reference Specification No: | FP/SPEC/298-01 |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984050 | A.R. NO. | : FP/S-01/14/102 |
| Manufacturing Date | : MAR-14 | Expiry Date | : FEB-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 16/03/14 | Date of completion | : 30/03/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 100.2% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 21 Particles/container of $\geq 10\mu\text{m}$
5 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.68 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | |
|-------------------|----------------|
| Prepared By: s47F | Review: s47F |
| Name: s47F | Name: s47F |
| Date: 14/05/14 | Date: 14/05/14 |
| Date: 14/05/14 | Date: 14/05/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|--|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984048 | A.R. NO. | : FP/S-01/14/100 |
| Manufacturing Date | : MAR-14 | Expiry Date | : FEB-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 14/03/14 | Date of completion | : 28/03/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.1mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 100.2% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | < 0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 71 Particles/container of $\geq 10\mu\text{m}$
25 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.78 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | < 0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | < 2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | |
|-------------------|----------------|
| Prepared By: s47F | Review: s47F |
| Name: s47F | Name: s47F |
| Date: 02/04/14 | Date: 02/04/14 |
| Date: 02/04/14 | Date: 02/04/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|--|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984047 | A.R. NO. | : FP/S-01/14/099 |
| Manufacturing Date | : MAR-14 | Expiry Date | : FEB-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 13/03/14 | Date of completion | : 27/03/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.5% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 43 Particles/container of $\geq 10\mu\text{m}$
5 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.75 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|-------------------|---------------|------------------|---------------|
| Prepared By: s47F | | Revised By: s47F | |
| Name : | | Name : | |
| Date:02/04/14 | Date:02/04/14 | Date:02/04/14 | Date:02/04/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | | | |
|--|-------------------|------------------------------------|------------------|
| DEPARTMENT | : Quality Control | Reference Specification No: | FP/SPEC/298-01 |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984036 | A.R. NO. | : FP/S-01/14/055 |
| Manufacturing Date | : FEB-14 | Expiry Date | : JAN-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 13/02/14 | Date of completion | : 27/02/14 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 100.2% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 94 Particles/container of $\geq 10\mu\text{m}$
39 Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.61 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Storage: Store below 25°C

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|----------------|----------------|----------------|----------------|
| Prepared By | s47F | Reviewed | s47F |
| Name | | Name: | |
| DATE: 28/02/14 | DATE: 28/02/14 | DATE: 01/03/14 | DATE: 01/03/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-01 | |
|--|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1T2984032 | A.R. NO. | : FP/S-01/14/048 |
| Manufacturing Date | : FEB-14 | Expiry Date | : JAN-17 |
| Batch Size | : 1000 Litre | Quantity sampled | : 125Nos. |
| Testing Date | : 10/02/14 | Date of completion | : 25/02/14 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 10.2mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 100.2% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL. |
| 06 | Particulate Contamination | 347 Particles/container of ≥10µm
39 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.72 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Storage: Store below 25°C

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|-------------------|----------------|-----------------|---------------|
| Prepared By: s47F | | | |
| Name: [Redacted] | | | |
| DATE: 28/02/14 | DATE: 28/02/14 | DATE: 01 Feb 14 | DATE: 01.3/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| DEPARTMENT : Quality Control | | Reference Specification No: FP/SPEC/298-00 | |
|---|---|--|--|
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9%W/V
(SODIUM CHLORIDE INJECTION BP) | | | |
| .Batch No. | : 1TW2983003 | A.R. NO. | : FP/S-01/13/398 |
| Manufacturing Date | : NOV-13 | Expiry Date | : OCT-16 |
| Batch Size | : 1000 Litre | Quantity sampled | : 80 Nos. |
| Testing Date | : 25/11/13 | Date of completion | : 11/12/13 |
| Sr. No. | Test | Observation | Specification |
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 20.3mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5 mL |
| 04 | Assay of Sodium Chloride | 99.0% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25 EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 17Particles/container of $\geq 10\mu\text{m}$
1Particles/container of $\geq 25\mu\text{m}$ | Average particles not more than 6000 per container equal to or greater than $10\mu\text{m}$ and not more than 600 per container equal to or greater than $25\mu\text{m}$ |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.78 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3 ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2 ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|----------------------|----------------------|----------------------|----------------------|
| s47F | | | |
| Prepared By: | | | |
| Name : | | | |
| DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 |

Q01019/F-20-01/010412

CERTIFICATE OF ANALYSIS FOR FINISHED PRODUCT

| | | | |
|--|-------------------|------------------------------------|------------------|
| DEPARTMENT | : Quality Control | Reference Specification No: | FP/SPEC/298-00 |
| TITLE : SODIUM CHLORIDE FOR INJECTION -MS 0.9% W/V (SODIUM CHLORIDE INJECTION BP) | | | |
| Batch No. | : 1TW2983002 | A.R. NO. | : FP/S-01/13/397 |
| Manufacturing Date | : NOV-13 | Expiry Date | : OCT-16 |
| Batch Size | : 1000 Litre | Quantity sampled | : 80 Nos. |
| Testing Date | : 25/11/13 | Date of completion | : 11/12/13 |

| Sr. No. | Test | Observation | Specification |
|-----------------------------------|---|--|--|
| 01 | Appearance | A clear, colourless solution. | A clear, colourless solution |
| 02 | Identification
(A) Sodium Salts

(B) Chlorides | (A)
(a) A dense white precipitate is formed.
(b) No precipitate is formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. | (A)
(a) A dense white precipitate should be formed.
(b) No precipitate should be formed.
(B) The precipitate dissolves easily with the possible exception of a few large particles which dissolve slowly. |
| 03 | Extractable Volume | 20.4mL | Not less than nominal volume and not more than 115% of the nominal volume for ≤ 5 mL or Not less than nominal volume and not more than 110% of the nominal volume for > 5mL |
| 04 | Assay of Sodium Chloride | 99.0% | Between 96.0% to 104.0% |
| 05 | Bacterial Endotoxins | <0.25EU/mL | Less than 0.25 EU/mL |
| 06 | Particulate Contamination | 11 Particles/container of ≥10µm
1 Particles/container of ≥25µm | Average particles not more than 6000 per container equal to or greater than 10 µm and not more than 600 per container equal to or greater than 25µm |
| 07 | Sterility | Sterile | Must be sterile |
| ADDITIONAL TESTS AS PER IP | | | |
| 08 | pH | 5.87 | Between 4.5 to 7.0 |
| 09 | Heavy Metals | <0.3ppm | Not more than 0.3 ppm |
| ADDITIONAL TEST AS PER USP | | | |
| 10 | Iron | <2ppm | Not more than 2 ppm |

Report: The product complies with the prescribed standard of the quality as per specification.

| | | | |
|---------------|---------------|---------------|---------------|
| s47F | | s47F | |
| Prepared By | | Review | |
| Name | | Name | |
| DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 | DATE:28/03/14 |



Australian Government
Department of Health
Therapeutic Goods Administration

URGENT MEDICINE RECALL*

LEVEL: Wholesale

CLASS: Class I

REFERENCE: RC-2014-RN-01098-1

DATE AGREED: 10/10/2014

PRODUCT: Sodium Chloride For Injection – MS 0.9% W/V, 50 X 5ML Ampoules

Batch Number: 1F2983003

AUST R Number: 199991

SPONSOR: s47G

PHONE: s47G

REASON: s47G, following advice from the Therapeutic Goods Administration that Batch Number 1F2983003 of Sodium Chloride for Injection-MS 0.9% w/v 5mL ampoules has failed the test for sterility, is recalling all units which are with the contracted distributor. No affected units have been supplied by the contracted distributor. No other batches or pack sizes of this product are affected by this recall.

PROPOSED ACTION: The contracted distributor is asked to inspect their stocks and quarantine all units from the above batch number. s47G will arrange for the affected stock to be recovered.

The sponsor is expected to dispatch letters to all affected customers within two working days of the agreed date. **Please do not contact the sponsor for further information unless you believe that you have the goods under recall and have not received a recall letter.**

Product Distribution: 1 contracted distributor in VIC

Product export status: Unknown

This issue was first identified by the Sponsor

*For further details about Recall Actions, please refer to <http://tga.gov.au/safety/recalls-about.htm>



Australian Government
Department of Health
Therapeutic Goods Administration

URGENT MEDICINE RECALL*

LEVEL: Retail

CLASS: Class II

REFERENCE: RC-2015-RN-00513-1

DATE AGREED: 16/06/15

PRODUCT: Paclitaxel Suspension (Abraxane) 207.5mg in 0.9% Sodium Chloride (Compounded Patient Specific Product)

Batch Number: 15F11QM00119

Manufacturing date: 11/06/2015

Expiry Date: 13/06/2015

SPONSOR:

s47G

PHONE:

s47G

- Customer Service

REASON:

s47G

has decided to recall this product as it has been determined that the partially used vial of Paclitaxel Suspension used to manufacture this product has possibly been incorrectly stored at room temperature rather than at a refrigerated temperature. Consequently the shelf life of the product cannot be guaranteed.

PROPOSED ACTION:

s47G

is sending the pharmacy a letter describing the issue and recall action. The pharmacy was previously contacted via telephone to alert them of the issue and ensure that the medicine was not administered.

The sponsor is expected to dispatch letters to all affected customers within two working days of the agreed date. **Please do not contact the sponsor for further information unless you believe that you have the goods under recall and have not received a recall letter.**

Product Distribution: 1 pharmacy in QLD

Product export status: Unknown

This issue was first identified by the Sponsor

*For further details about Recall Actions, please refer to <http://tga.gov.au/safety/recalls-about.htm>