

Nanobot Housewares Solutions Pvt. Ltd.

G-678-679, IV Phase, Boranada, Jodhpur-342012, Rajasthan

Web: www.nanobotsolutions.com Email: info@nanobotsolutions.com

Customer care: 1800-123-110011

GSTIN NO.08AAFCN6919D1ZE

PAN: - AAFCN6919

DCIN: - U74999RJ2017PTC058488

Doc. No.: IS: 17803:2022

TITLE: POTABLE WATER BOTTLES (COPPER, STAINLESS STEEL, ALUMINIUM) SPECIFICATION

LAST DATE OF COMMENTS: 16.01.2024

NAME OF THE COMMENTATOR/ORGANIZATION: - Nanobot Housewares Solutions Pvt. Ltd.

SI. No.	Clause/ Sub- clause	Comme ntator	Type of Comment s	Justification	Proposed Change/ Addition
1.	7.1.2	Vikas Jain	Technical	7.1.2.1 The material used to Manufacture shall be of grade 304 as per IS: 5522 or grade 316L as per IS: 6911.	7.1.2.1 The material used to Manufacture shall be of grade of Metal composition Test Specification(s) / Regulation(s): As Per IS 15997:2012, N1 – (X10Cr15Mn9CuNi1N)

Test Report No. GGN/H(FCM)/23/002422 A1 Dated. 2023.12.15



Sample Image(s) (As Received)

Component No. A







Test Report No. GGN/H(FCM)/23/002422 A1 Dated. 2023.12.15





Applicant / Company Name : Nanobot Housewares Solution Private Limited

Address : 678-679, IVTh Phase, Boranada

Jodhpur-342012 (Rajasthan), India

Attention / Contact Person : Vikas Jain

Tested Sample : Received on 2023.10.11 at 11:56 A.M.

Test Period : 2023.10.12 To 2023.10.19

Article / Sample Description : SS Water Bottle
Colour : Stainless Steel

Material : Stainless Steel: Unplated

Product Type / End Use: Water BottleStyle No.: NERO1000

Country Of Origin : India
Country Of Destination : India

Note: The submitted sample(s) is / are Not Drawn by the Laboratory

NOTE: Unless otherwise agreed upon, Pass or Fail or Statement of compliance verdicts are given based on the measured values without any considerations of measurement uncertainties. Every test method has a measurement uncertainty which has been evaluated by the laboratory and are available on request. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

By accepting this document, the customer hereby agrees and accepts the 'Terms & Conditions' and the relevant 'Testing & Certification Regulations' of TÜV SÜD South Asia Pvt Ltd. which are available at Company's website at the link-https://www.tuvsud.com/en-in/terms-and-conditions

Note: The test report is electronically generated. Hence original signature is not required.

Note: (1) The results relate only to the items tested, (2) The test report shall not be reproduced except in full without the written approval of the laboratory (3) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (4) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same, (5) The testing conditions are followed as per the reported test standard. For additional test conditions apart from the reported test conditions laboratory can be contacted for details

Laboratory: TÜV SÜD South Asia Pvt. Ltd. 373 Udyog Vihar Phase II Sector 20

Gurgaon - 122016

Phone: +91 (124) 6199699
Email:
Anuradha.Dhamija@tuvsud.com
www.tuvsud.com



Test Report No. GGN/H(FCM)/23/002422 A1 Dated, 2023,12,15



Remarks:

- 1. Sample(s) is / are tested as on-received basis.
- 2. Test(s) performed as requested by applicant.
- 3. Conclusion(s) of the test(s) was drawn as per compliance requirement(s) specified by applicant.
- 4. Test "Metal composition" was subcontracted to Other Laboratory.
- 5. (##) Marked test is not under ISO/IEC 17025 accreditation.

Report Amendment Remarks: The report no GGN/H(FCM)/23/002422 dated 2023-10-19 has been superseded. The test report is amended in terms of Addition of Specification as per applicant request.

Authorized By

Authorized By

Ashish Rai

(Authorised Signatory)

Vaban Pal Singh (Authorised Signatory)

Please Contact:

For any technical issues: Anuradha Dhamija at :Anuradha.Dhamija@tuvsud.com For any complaint: Ashima Sapra at: Ashima.Sapra@tuvsud.com

By accepting this document, the customer hereby agrees and accepts the 'Terms & Conditions' and the relevant 'Testing & Certification Regulations' of TÜV SÜD South Asia Pvt Ltd. which are available at Company's website at the link-https://www.tuvsud.com/en-in/terms-and-conditions Note: The test report is electronically generated. Hence original signature is not required.

Note: (1) The results relate only to the items tested, (2) The test report shall not be reproduced except in full without the written approval of the laboratory (3) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (4) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same, (5) The testing conditions are followed as per the reported test standard. For additional test conditions apart from the reported test conditions laboratory can be contacted for details

Test Report No. GGN/H(FCM)/23/002422 A1 Dated. 2023.12.15



Summary of Test Result(s)

S. No.	Test(s)	Conclusion (#)
1.	Sensory verification (Transfer of Odour / Smell & Taste)	Pass
2.	Migration of / Extractable elements	Pass
3.	Metal composition (As per IS 15997:2012 N1 (X10Cr15Mn9Cu2Ni1N))	Refer Result
4.	Resistance to corrosion	Pass
(#) For details.	details regarding specification(s) / regulation(s) based on which compliance	is decided, refer test

Material list / List of material(s) (As confirmed by applicant)

Component No.	Component description	Material	Color
Α	SS Water Bottle (Style: NERO1000)	Stainless Steel	Stainless Steel

Sampling plan (As requested by applicant)

S. No.	Test	Component No.
1.	Sensory verification (Transfer of Odour / Smell & Taste)	Α
2.	Migration of / Extractable elements	Α
3.	Metal composition	Α

Test Report No. GGN/H(FCM)/23/002422 A1 Dated. 2023.12.15



Test Result(s):

Sensory verification of smell / Odour

Test Specification(s) / Regulation(s): Framework Regulation (EC) No. 1935/2004 (Article 3 para (1-c);

Test method adopted: DIN 10955:2004. Simulant(s) used: Distilled water. Test condition(s): 40°C for 24 Hours;

Component No.	Result (Rating)	Compliance Requirement / Limit Max.	Conclusion
Α	0	Less than 2.5	Pass

Note:

(Intermediate grades are allowed)

- 0 = no perceptible difference in odour.
- 1 = just perceptible difference in odour (still difficult to define);
- 2 = slight difference in odour.
- 3 = marked difference in odour.
- 4 = strong difference in odour.

Sensory verification of taste

Test Specification(s) / Regulation(s): Framework Regulation (EC) No. 1935/2004 (Article 3 para (1-c);

Test method adopted: DIN 10955:2004. Simulant(s) used: Distilled water. Test condition(s): 40°C for 24 Hours;

Component No.	Result (Rating)	Compliance Requirement / Limit Max.	Conclusion
Α	0	Less than 2.5	Pass

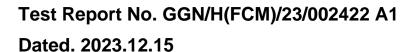
Note:

(Intermediate grades are allowed)

- 0 = no perceptible difference in taste;
- 1 = just perceptible difference in taste (still difficult to define);
- 2 = slight difference in taste;
- 3 = marked difference in taste;
- 4 = strong difference in taste.

Phone: +91 (124) 6199699 Email: Anuradha.Dhamija@tuvsud.com www.tuvsud.com







Migration of / Extractable elements

Test Method(s) & Specification(s): Technical Guide on Metals and alloys used in food contact materials and articles (1st Edition, 2013) published by the Directorate for the Quality of Medicines & HealthCare of the Council of Europe (EDQM), which is in correspondence with Council of Europe Resolution {CM/Res(2013)9} (metals & alloys used in food contact materials and articles) and supplements Article 3 para (1-a) of Regulation (EC) No. 1935/2004 (framework regulation on materials and articles intended to come into contact with food);

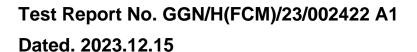
Simulant(s) used: Artificial tap water.

Test condition(s): 70°C for 2 hours followed by 40°C for 24 hours (under repeat use condition);

Surface area to volume / Migration ratio: 5.58 dm²: 900ml

Equipment(s) used: ICP – MS (Inductively Coupled Plasma – Mass Spectrometer).

	Limit of quantification	Result(s) of (1 st + 2 nd) migration (mg/kg) – Component No.	Maximum Permissible Limit (mg/kg) / 7 times
Element	(mg/kg)	A	SRL
Tin (as Sn)	0.09	ND	700
Copper (as Cu)	0.04	ND	28
Iron (as Fe)	0.08	ND	280
Manganese (as Mn)	0.04	ND	12.6
Zinc (as Zn)	0.15	ND	35
Aluminium (as Al)	0.05	ND	35
Nickel (as Ni)	0.04	ND	0.98
Chromium (as Cr)	0.03	ND	1.75
Barium (as Ba)	0.04	ND	8.4
Lithium (as Li)	0.02	ND	0.336
Beryllium (as Be)	0.003	ND	0.07
Vanadium (as V)	0.004	ND	0.07
Cobalt (as Co)	0.01	ND	0.14
Arsenic (as As)	0.001	ND	0.014
Molybdenum (as Mo)	0.05	ND	0.84
Silver (as Ag)	0.03	ND	0.56
Cadmium (as Cd)	0.002	ND	0.035
Antimony (as Sb)	0.02	ND	0.28
Mercury (as Hg)	0.001	ND	0.021
Thallium (as TI)	0.0001	ND	0.0007
Lead (as Pb)	0.003	ND	0.070
Magnesium (as Mg)	0.001	0.369	
Titanium (as Ti)	0.06	ND	
Conclus	ion	Pass	





Migration of / Extractable elements

Test Method(s) & Specification(s): Technical Guide on Metals and alloys used in food contact materials and articles (1st Edition, 2013) published by the Directorate for the Quality of Medicines & HealthCare of the Council of Europe (EDQM), which is in correspondence with Council of Europe Resolution {CM/Res(2013)9} (metals & alloys used in food contact materials and articles) and supplements Article 3 para (1-a) of Regulation (EC) No. 1935/2004 (framework regulation on materials and articles intended to come into contact with food);

Simulant(s) used: Artificial tap water.

Test condition(s): 70°C for 2 hours followed by 40°C for 24 hours (under repeat use condition);

Surface area to volume / Migration ratio: 5.58 dm²: 900ml

Equipment(s) used: ICP - MS (Inductively Coupled Plasma - Mass Spectrometer).

	Limit of	Result(s) of 3 rd migration	
	quantification	(mg/kg) – Component No.	Maximum Permissible
Element	(mg/kg)	Α	Limit (mg/kg) / SRL
Tin (as Sn)	0.09	ND	100
Copper (as Cu)	0.04	ND	4
Iron (as Fe)	0.08	ND	40
Manganese (as Mn)	0.04	ND	1.8
Zinc (as Zn)	0.15	ND	5
Aluminium (as Al)	0.05	ND	5
Nickel (as Ni)	0.04	ND	0.14
Chromium (as Cr)	0.03	ND	0.250
Barium (as Ba)	0.04	ND	1.2
Lithium (as Li)	0.02	ND	0.048
Beryllium (as Be)	0.003	ND	0.01
Vanadium (as V)	0.004	ND	0.01
Cobalt (as Co)	0.01	ND	0.02
Arsenic (as As)	0.001	ND	0.002
Molybdenum (as Mo)	0.05	ND	0.12
Silver (as Ag)	0.03	ND	0.08
Cadmium (as Cd)	0.002	ND	0.005
Antimony (as Sb)	0.02	ND	0.04
Mercury (as Hg)	0.001	ND	0.003
Thallium (as TI)	0.0001	ND	0.0001
Lead (as Pb)	0.003	ND	0.010
Magnesium (as Mg)	0.001	0.138	
Titanium (as Ti)	0.06	ND	
Conclus	sion	Pass	

Test Report No. GGN/H(FCM)/23/002422 A1 Dated. 2023.12.15



Metal composition (##)

Test Specification(s) / Regulation(s): As per IS 15997:2012 N1 (X10Cr15Mn9Cu2Ni1N)

Test Method Adopted: ASTM E 1806:2022

Equipment(s) used: Arc Spark - Optical Emission Spectrometer:

S. No.	Test parameter(s) / Element	Test Result(s) (%) - Component No. A
1.	Carbon (C)	0.098
2.	Silicon (Si)	0.517
3.	Manganese (Mn)	9.870
4.	Nickel (Ni)	1.080
5.	Chromium (Cr)	15.210
6.	Sulphur (S)	0.0049
7.	Phosphorus (P)	0.0256
8.	Copper (Cu)	1.600
9.	Nitrogen (N)	8
10.	Niobium (Nb)	0.029

Resistance to corrosion

Test method(s) adopted: ISO 9227:2017 (Neutral Salt Spray testing)

Equipment used: Salt Spray Tester.

Test condition(s):

(i) Concentration of Salt (Sodium chloride (NaCl)) Solution: 5 %

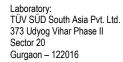
(ii) Chamber temperature: (35 ± 2) °C(iii) Exposure period: 24 hours.

Sample Name	Test Result(s) / Observation(s) (*1)	Applicant's specification	Conclusion	
		No red rust/corrosion		
SS Water Bottle		observed after testing in	Pass	
(Style: NERO1000)	No visual change observed in bottle.	bottle.		
(*1) Observations were made visually with unaided eye.				

Abbreviations

"mg/kg" denotes milligram per kilogram & is equivalent to ppm (parts per million); "ND" denotes Not Detected or below limit of quantification; ""°C" denotes degree Celsius; "%" denotes percent.

---END OF THE TEST REPORT---



Phone: +91 (124) 6199699 Email: Anuradha.Dhamija@tuvsud.com www.tuvsud.com



Test Report No. GGN/H(FCM)/23/002423 A1 Dated. 2023.12.15



Sample Image(s) (As Received)

Component No. A







Test Report No. GGN/H(FCM)/23/002423 A1 Dated. 2023.12.15





Applicant / Company Name : Nanobot Housewares Solution Private Limited

Address : 678-679, IVTh Phase, Boranada

Jodhpur-342012 (Rajasthan), India

Attention / Contact Person : Vikas Jain

Tested Sample : Received on 2023.10.11 at 11:56 A.M.

Test Period : 2023.10.11 To 2023.10.19

Article / Sample Description : SS Water Bottle
Colour : Stainless Steel

Material : Stainless Steel: Unplated

Product Type / End Use : Water Bottle
Style No. : VYOMA1000

Country Of Origin : India
Country Of Destination : India

Note: The submitted sample(s) is / are Not Drawn by the Laboratory

NOTE: Unless otherwise agreed upon, Pass or Fail or Statement of compliance verdicts are given based on the measured values without any considerations of measurement uncertainties. Every test method has a measurement uncertainty which has been evaluated by the laboratory and are available on request. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

By accepting this document, the customer hereby agrees and accepts the 'Terms & Conditions' and the relevant 'Testing & Certification Regulations' of TÜV SÜD South Asia Pvt Ltd. which are available at Company's website at the link-https://www.tuvsud.com/en-in/terms-and-conditions Note: The test report is electronically generated. Hence original signature is not required.

Note: (1) The results relate only to the items tested, (2) The test report shall not be reproduced except in full without the written approval of the laboratory (3) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (4) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same, (5) The testing conditions are followed as per the reported test standard. For additional test conditions apart from the reported test conditions laboratory can be contacted for details

Laboratory: TÜV SÜD South Asia Pvt. Ltd. 373 Udyog Vihar Phase II Sector 20

Gurgaon - 122016

Phone: +91 (124) 6199699
Email:
Anuradha.Dhamija@tuvsud.com
www.tuvsud.com



Test Report No. GGN/H(FCM)/23/002423 A1 Dated. 2023.12.15



Remarks:

- 1. Sample(s) is / are tested as on-received basis.
- 2. Test(s) performed as requested by applicant.
- 3. Conclusion(s) of the test(s) was drawn as per compliance requirement(s) specified by applicant.
- 4. Test "Metal composition" was subcontracted to Other Laboratory.
- 5. (##) Marked test is not under ISO/IEC 17025 accreditation.

Report Amendment Remarks: The report no GGN/H(FCM)/23/002423 dated 2023-10-19 has been superseded. The test report is amended in terms of Addition of Specification as per applicant request.

Authorized By

Authorized By

Ashish Rai

(Authorised Signatory)

Vaban Pal Singh (Authorised Signatory)

Please Contact:

For any technical issues: Anuradha Dhamija at : Anuradha. Dhamija @tuvsud.com

For any complaint: Ashima Sapra at: Ashima.Sapra@tuvsud.com

By accepting this document, the customer hereby agrees and accepts the 'Terms & Conditions' and the relevant 'Testing & Certification Regulations' of TÜV SÜD South Asia Pvt Ltd. which are available at Company's website at the link-https://www.tuvsud.com/en-in/terms-and-conditions

Note: The test report is electronically generated. Hence original signature is not required.

Note: (1) The results relate only to the items tested, (2) The test report shall not be reproduced except in full without the written approval of the laboratory (3) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. (4) The correctness of the information related to sample(s) in the Test Request Form/Customer letterhead/Email is the customer's responsibility. The laboratory reports the said information in the test report and is not liable for the same, (5) The testing conditions are followed as per the reported test standard. For additional test conditions apart from the reported test conditions laboratory can be contacted for details

Laboratory: TÜV SÜD South Asia Pvt. Ltd. 373 Udyog Vihar Phase II Sector 20

Gurgaon - 122016

Phone: +91 (124) 6199699
Email:
Anuradha.Dhamija@tuvsud.com
www.tuvsud.com



Test Report No. GGN/H(FCM)/23/002423 A1 Dated. 2023.12.15



Summary of Test Result(s)

S. No.	Test(s)	Conclusion(#)
1.	Sensory verification (Transfer of Odour / Smell & Taste)	Pass
2.	Migration of / Extractable elements	Pass
3.	Metal composition {As per IS 15997:2012 N1 (X10Cr15Mn9Cu2Ni1N)}	Refer Result
4.	Resistance to corrosion	Pass
(#) For details.	details regarding specification(s) / regulation(s) based on which compliance is	decided, refer test

Material list / List of material(s) (As confirmed by applicant)

Component No.	Component description	Material	Color
Α	SS Water Bottle (Style: VYOMA1000)	Stainless Steel	Stainless Steel

Sampling plan (As requested by applicant)

ramping plan (no requested by applicant)			
S. No.	Test	Component No.	
1.	Sensory verification (Transfer of Odour / Smell & Taste)	Α	
2.	Migration of / Extractable elements	A	
3.	Metal composition	A	

Test Report No. GGN/H(FCM)/23/002423 A1 Dated. 2023.12.15



Test Result(s):

Sensory verification of smell / Odour

Test Specification(s) / Regulation(s): Framework Regulation (EC) No. 1935/2004 (Article 3 para (1-c);

Test method adopted: DIN 10955:2004; Simulant(s) used: Distilled water.

Test condition(s): 40°C for 24 Hours;

Component No. Res	sult (Rating)	Compliance Requirement / Limit Max.	Conclusion
Α 0		Less than 2.5	Pass

Note:

(Intermediate grades are allowed)

- 0 = no perceptible difference in odour.
- 1 = just perceptible difference in odour (still difficult to define);
- 2 = slight difference in odour;
- 3 = marked difference in odour;
- 4 = strong difference in odour.

Sensory verification of taste

Test Specification(s) / Regulation(s): Framework Regulation (EC) No. 1935/2004 (Article 3 para (1-c);

Test method adopted: DIN 10955:2004; Simulant(s) used: Distilled water; Test condition(s): 40°C for 24 Hours;

Component No.	Result (Rating)	Compliance Requirement / Limit Max.	Conclusion
Α	0	Less than 2.5	Pass

Note:

(Intermediate grades are allowed)

- 0 = no perceptible difference in taste;
- 1 = just perceptible difference in taste (still difficult to define);
- 2 = slight difference in taste;
- 3 = marked difference in taste;
- 4 = strong difference in taste.

Test Report No. GGN/H(FCM)/23/002423 A1 Dated. 2023.12.15



Migration of / Extractable elements

Test Method(s) & Specification(s): Technical Guide on Metals and alloys used in food contact materials and articles (1st Edition, 2013) published by the Directorate for the Quality of Medicines & HealthCare of the Council of Europe (EDQM), which is in correspondence with Council of Europe Resolution {CM/Res(2013)9} (metals & alloys used in food contact materials and articles) and supplements Article 3 para (1-a) of Regulation (EC) No. 1935/2004 (framework regulation on materials and articles intended to come into contact with food);

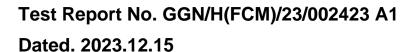
Simulant(s) used: Artificial tap water.

Test condition(s): 70°C for 2 hours followed by 40°C for 24 hours (under repeat use condition);

Surface area to volume / Migration ratio: 5.85 dm²: 1000ml

Equipment(s) used: ICP – MS (Inductively Coupled Plasma – Mass Spectrometer).

111 2 (2)	Limit of quantification	Result(s) of (1 st + 2 nd) migration (mg/kg) – Component No.	Maximum Permissible Limit (mg/kg) / 7 times
Element	(mg/kg)	A	SRL
Tin (as Sn)	0.09	ND	700
Copper (as Cu)	0.04	ND	28
Iron (as Fe)	0.08	ND	280
Manganese (as Mn)	0.04	ND	12.6
Zinc (as Zn)	0.15	ND	35
Aluminium (as Al)	0.05	ND	35
Nickel (as Ni)	0.04	ND	0.98
Chromium (as Cr)	0.03	ND	1.75
Barium (as Ba)	0.04	ND	8.4
Lithium (as Li)	0.02	ND	0.336
Beryllium (as Be)	0.003	ND	0.07
Vanadium (as V)	0.004	ND	0.07
Cobalt (as Co)	0.01	ND	0.14
Arsenic (as As)	0.001	ND	0.014
Molybdenum (as Mo)	0.05	ND	0.84
Silver (as Ag)	0.03	ND	0.56
Cadmium (as Cd)	0.002	ND	0.035
Antimony (as Sb)	0.02	ND	0.28
Mercury (as Hg)	0.001	ND	0.021
Thallium (as TI)	0.0001	ND	0.0007
Lead (as Pb)	0.003	ND	0.070
Magnesium (as Mg)	0.001	0.453	
Titanium (as Ti)	0.06	ND	
Conclusion		Pass	





Migration of / Extractable elements

Test Method(s) & Specification(s): Technical Guide on Metals and alloys used in food contact materials and articles (1st Edition, 2013) published by the Directorate for the Quality of Medicines & HealthCare of the Council of Europe (EDQM), which is in correspondence with Council of Europe Resolution {CM/Res(2013)9} (metals & alloys used in food contact materials and articles) and supplements Article 3 para (1-a) of Regulation (EC) No. 1935/2004 (framework regulation on materials and articles intended to come into contact with food);

Simulant(s) used: Artificial tap water;

Test condition(s): 70 °C for 2 hours followed by 40°C for 24 hours (under repeat use condition);

Surface area to volume / Migration ratio: 5.85 dm²:1000 ml

Equipment(s) used: ICP - MS (Inductively Coupled Plasma - Mass Spectrometer).

Limit of Result(s) of 3 rd migration				
	quantification	(mg/kg) – Component No.	Maximum Permissible	
Element	(mg/kg)	A	Limit (mg/kg) / SRL	
Tin (as Sn)	0.09	ND	100	
Copper (as Cu)	0.04	ND	4	
Iron (as Fe)	0.08	ND	40	
Manganese (as Mn)	0.04	ND	1.8	
Zinc (as Zn)	0.15	ND	5	
Aluminium (as Al)	0.05	ND	5	
Nickel (as Ni)	0.04	ND	0.14	
Chromium (as Cr)	0.03	ND	0.250	
Barium (as Ba)	0.04	ND	1.2	
Lithium (as Li)	0.02	ND	0.048	
Beryllium (as Be)	0.003	ND	0.01	
Vanadium (as V)	0.004	ND	0.01	
Cobalt (as Co)	0.01	ND	0.02	
Arsenic (as As)	0.001	ND	0.002	
Molybdenum (as Mo)	0.05	ND	0.12	
Silver (as Ag)	0.03	ND	0.08	
Cadmium (as Cd)	0.002	ND	0.005	
Antimony (as Sb)	0.02	ND	0.04	
Mercury (as Hg)	0.001	ND	0.003	
Thallium (as TI)	0.0001	ND	0.0001	
Lead (as Pb)	0.003	ND	0.010	
Magnesium (as Mg)	0.001	0.112		
Titanium (as Ti)	0.06	ND		
Conclus	ion	Pass		

Test Report No. GGN/H(FCM)/23/002423 A1 Dated. 2023.12.15



Metal composition (##)

Test Specification(s) / Regulation(s): As per IS 15997:2012 N1 (X10Cr15Mn9Cu2Ni1N)

Test Method Adopted: ASTM E 1806:2022

Equipment(s) used: Arc Spark - Optical Emission Spectrometer;

S. No.	Test parameter(s) / Element	Test Result(s) (%) - Component No. A
1.	Carbon (C)	0.097
2.	Silicon (Si)	0.517
3.	Manganese (Mn)	9.600
4.	Nickel (Ni)	1.040
5.	Chromium (Cr)	15.240
6.	Sulphur (S)	0.0082
7.	Phosphorus (P)	0.0236
8.	Copper (Cu)	1.560
9.	Nitrogen (N)	9
10.	Niobium (Nb)	0.031

Resistance to corrosion

Test method(s) adopted: ISO 9227:2017 (Neutral Salt Spray testing)

Equipment used: Salt Spray Tester.

Test condition(s):

(i) Concentration of Salt {Sodium chloride (NaCl)} Solution: 5 %

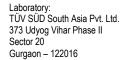
(ii) Chamber temperature: (35 ± 2) °C(iii) Exposure period: 24 hours.

Sample Name	Test Result(s) / Observation(s) (*1)	Applicant's specification	Conclusion	
		No red rust/corrosion		
SS Water Bottle		observed after testing in	Pass	
(Style: VYOMA1000)	No visual change observed in bottle.	bottle.		
(*1) Observations were made visually with unaided eye.				

Abbreviations

"mg/kg" denotes milligram per kilogram & is equivalent to ppm (parts per million); "ND" denotes Not Detected or below limit of quantification; ""°C" denotes degree Celsius; "%" denotes percent.

---END OF THE TEST REPORT---



Phone: +91 (124) 6199699
Email:
Anuradha.Dhamija@tuvsud.com
www.tuvsud.com

