

Schedule

Singapore Test Services Pte Ltd
Chemical, Microbiological & Environmental Division
249 Jalan Boon Lay
Singapore 619523

Certificate No. : LA-1987-0002-A
(Part 1 of 2)

Issue No. : 24

Date : 01 March 2018

Page : 1 of 5

FIELD OF TESTING : Chemical and Biological Testing

MATERIALS / PRODUCTS TESTED	TESTS / PROPERTIES	STANDARD METHODS / TECHNIQUES / EQUIPMENT
A. METAL & METAL ALLOYS		
A.1 Ferrous Materials		
A.1.1 Carbon Steel	1. Density	T-WI-CME-001-02-08
	2. C, Mn, P, S, Si, Ni, Cr, Mo, V, Ti, Cu, Nb & Al	T-WI-CME-001-17-01
	3. Mn, Si, Ni, Cr, Mo, V, Ti & Cu	T-WI-CME-001-02-01
	4. Si & P	ASTM E 350-12
	5. C, S & N	ASTM E 1019-11
	6. P	T-WI-CME-001-02-01
A.1.2 Stainless Steel	1. Density	T-WI-CME-001-02-08
	2. Ti, V, Mn, Ni, Cr, Mo, Cu & Si	T-WI-CME-001-03-01
	3. Si & P	ASTM E 353-14
	4. C, S & N	ASTM E 1019-11
	5. P	T-WI-CME-001-03-01
	6. C, Mn, P, S, Si, Ni, Cr, Mo, V, Ti, Cu, Nb & Al	T-WI-CME-001-17-01

Schedule



Certificate No. : LA-1987-0002-A
(Part 1 of 2)

Issue No. : 24

Date : 01 March 2018

Page : 2 of 5

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A.1.3 Cast Iron	1. Density	T-WI-CME-001-02-08
	2. Mn, Si, Ni, Cr, Mo, V, Ti, Al, Cu	T-WI-CME-001-05-01
	3. Si & P	ASTM E 351-13
	4. C, S & N	ASTM E 1019-11
	5. P	T-WI-CME-001-05-01
A.1.4 Nickel & Nickel Alloy	1. Density	T-WI-CME-001-02-08
	2. Mn, Cr, Mo, Ti, Si, Al, Cu, Co, Nb, Ta, P & Fe	T-WI-CME-001-06-01
	4. Ni	T-WI-CME-001-06-03
	5. Si	ASTM E 1473-16
	6. C, S & N	ASTM E 1019-11
	A2 Non Ferrous Metals	
A.2.1 Aluminium & Aluminium Alloy	1. Density	T-WI-CME-001-02-08
	2. Si, Fe, Cu, Mn, Mg, Cr, Ni, Zn, Ti, Pb & Sn	T-WI-CME-001-17-01
	3. Be, Si, Cu, Pb, Mg, Zn, Ni, Sn, Mn, Fe, Cr, Ti & V	T-WI-CME-001-07-01
	4. Si	T-WI-CME-001-07-03 ASTM E 34-94 (2002)
A.2.2 Copper & Copper Alloy	1. Density	T-WI-CME-001-02-08
	2. Mn, Ni, Fe, Al, Pb, Sn, Sb, Zn & P	T-WI-CME-001-08-01
	3. Fe, , Pb, & Zn	T-WI-CME-001-08-02
	4. Al, Ni, Zn & Sn	T-WI-CME-001-08-09
	5. Cu	ASTM E 53-07 (2013) ASTM E 75-76 (2004)

Schedule



Certificate No. : LA-1987-0002-A
(Part 1 of 2)

Issue No. : 24

Date : 01 March 2018

Page : 3 of 5

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	6. P	T-WI-CME-001-08-10
	7. Ag	T-WI-CME-001-08-12
	8. Zn, Cu	T-WI-CME-001-08-06
	9. Sn	T-WI-CME-001-08-11
	10. S	ASTM E 1019-11
A.2.3 Zinc & Zinc Alloy	1. Density	T-WI-CME-001-02-08
	2. Al, Cd, Cu, Fe, Mg, Pb & Sn	T-WI-CME-001-09-02
A.2.4 Plated Parts & Components, Galvanized Coating / Articles	1. Zinc Coating Mass	ASTM B 767-88 (2016) ASTM A 90/A 90M-13 SS 117 : 1975 Appendix A EN ISO 1460 : 1994
A.2.5 Titanium & Titanium Alloy	1. Density	T-WI-CME-001-02-08
	2. Al, V & Fe	T-WI-CME-001-18-01
	3. C	ASTM E 1019-11
	4. N & O	ASTM E 1409-13
	5. H	ASTM E 1447-09 (2016)
B. Food and food related products – drinks and sauces	1. Aerobic / Plate Count	FDA, BAM online (Jan 2001) Chapter 3
	2. Yeasts and Moulds	FDA, BAM online (April 2001) Chapter 18
	3. Coliforms	FDA, BAM online (Feb 2013) Chapter 4 • MPN Technique
	4. <i>Escherichia coli</i>	FDA, BAM online (Feb 2013) Chapter 4 • MPN Technique
	5. <i>Bacillus cereus</i>	ISO 7932:2004(E)
	6. <i>Clostridium perfringens</i>	ISO 7937:2004(E)

Schedule



Certificate No. : LA-1987-0002-A
(Part 1 of 2)

Issue No. : 24

Date : 01 March 2018

Page : 4 of 5

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C. Restriction of the use of certain hazardous substances (RoHS)	7. <i>Staphylococcus aureus</i>	FDA, BAM online (Mar 2016) Chapter 12		
	8. <i>Salmonella spp</i>	ISO 6579:2017		
	C. 1 Metals & Alloys <ul style="list-style-type: none"> • Metal Parts • Plated Parts 	1. Cadmium 2. Lead 3. Mercury 4. Hexavalent Chromium	} IEC 62321-2008 & ASTM B767-88(2016)	
	C. 2 Electronic Parts and Peripherals <ul style="list-style-type: none"> • Integrated Circuit Chips • Circuit boards • Cables 	1. Cadmium 2. Lead 3. Mercury 4. Hexavalent Chromium		} IEC 62321-2008
	C. 3 Paper, Wood & Textiles	5. Polybrominated Biphenyls (PBBs)		
	C. 4 Polymers & Plastics	6. Polybrominated Diphenyl Ethers (PBDEs)		
	C. 5 Inks & Paints			
	C. 6 Plating Solutions & Salts			
C. 7 Refractory Materials	1. Cadmium 2. Lead 3. Mercury 4. Hexavalent Chromium	} IEC 62321-2008		

Schedule



Certificate No. : LA-1987-0002-A
(Part 1 of 2)

Issue No. : 24

Date : 01 March 2018

Page : 5 of 5

Approved Signatories

Ms Peh Chue Cheo	–	For Section A only
Mr Yap Jian Jie	–	For all tests except microbiology tests
Mr Ix Ho Chee Hei)	For all microbiological tests
Mr Koo Weoi Jong)	

Note:

This laboratory is accredited in accordance with the recognised International Standard ISO/IEC 17025. A laboratory's fulfilment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and **management system requirements** that are necessary for it to consistently deliver technically valid test results. The **management system requirements** in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001.