

ThermoFisher Scientific  
1410 Gillingham Lane  
SugarLand, TX 77478

November 24, 2014

Due to the demand for technologies and product features, some electronic information product materials contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl, polybrominated diphenyl ether, etc. Such substances and elements are toxic or hazardous. In order to prevent the aforementioned substances from resulting in serious human and environmental effects during use and disassembly of discarded [electronic information products], to promote electronic information product compliance with environmental protection requirements, and to further standardize electronic information product marking, China standard SJ/T11364—2006 was formulated according to stipulations set forth in the “*Management Methods for the Control of Pollution from Electronic Information Products*” (Ministry of Information Industry, Order No. 39) and by referencing related international standards and industrial practices.

This standard specifies names and contents of the toxic or hazardous substances or elements contained in electronic information products, the environmental protection use period, recyclability and marking of names of packaging materials.

All electronic information products that are sold in the People’s Republic of China shall be marked with pollution control logos for electronic information products in accordance with the requirements set forth in this standard. If the sizes or functions of products prevent direct marking on the products, it may be specified in the product instructions.

Logos 1 and 2 are demonstrated [below] for marking for control of pollution caused by electronic information products;



Logo 1

Logo 2

Note: The number in logo 2 is only for demonstration. When in actual use, it shall be replaced with the corresponding environmental protection use period of the product.



Producers and importers who manufacture or import electronic information products that contain toxic or hazardous substances or element shall specify in product instructions the names and contents of toxic or hazardous substances or element and mark them on the parts where they are contained. The first row in Table 1 is the head. The first column is the part name. Other columns are contents of the toxic or hazardous substances or elements. The last row shall be used entirely for meanings of the logos and explanation for other related matters.

If certain toxic or hazardous substances or elements do not exist in this part, namely this toxic or hazardous substance or element contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006, then mark “O” for the corresponding column. If certain toxic or hazardous substance or element is contained in this part, namely this toxic or hazardous substance or element contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006, then mark “X” for the corresponding column.

Table 1

中國RoHS 透露報告						
(Product Number XX)						
成分名稱 (Assembly)	危險物質或元素 (Hazardous Substance)					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	鉻VI 化合物 (Cr6+)	多溴化的聯苯 (PBB)	多溴化的二苯 基以太 (PBDE)
电路模块 (Circuit Modules)	X	O	O	O	O	O
电缆及电缆组件 (Cables & Cable Assemblies)	X	O	O	O	O	O

X 表明, 这种有害物质包含在这部分里所有同类的材料是在极限要求之下在SJ/T 11363-2006.  
X indicates that this hazardous substance contained in at least one of the homogeneous materials of this assembly is above the limit requirement in SJ/T 11363-2006.  
O 表明, 这种有害物质包含在这部分里所有同类的材料是在极限要求之下在SJ/T 11363-2006.  
O indicates that this hazardous substance contained in all homogeneous materials of this part is below the limit requirement in SJ/T 11363-2006.  
环境友好的用途期间(EFUP) 为这个汇编是每标志被显示这里  
:


Intertek provided the flowing China RoHS service for ThermoFisher Scientific:

**Based on the RoHS compliance information provided by ThermoFisher Scientific for the following product:**


NitusPRO- MS2011I

**Intertek developed the required China RoHS Toxic & Hazardous Substances Tables and recommended EPUP per the limit requirements in SJ/T 11363-2006.**

The EFUP marking label and the creation of the Toxic & Hazardous Substances Tables enables Ingersoll Rand Company to declare compliance to the Phase I of the China RoHS requirements.

Signed: 

Sarah Hayduk  
RoHS Compliance Analyst  
Intertek Chemical Services

Signed: 

Joe Langton  
Restricted Substance Business Leader  
Intertek Chemical Services



# TEST REPORT

## INTERTEK TESTING SERVICES, NA Inc.

1717 Arlingate Lane

Columbus, OH, 43228, USA

Project No.: G101660093

Issued: 11/21/2014

Revised: N/A

**REPORT NO. 101660093COL-003**

**RENDERED TO:**  
**Thermo Fisher Scientific Inc.**  
**1410 Gillingham Lane**  
**SugarLand, TX 77478**

### **STANDARD REFERENCED AND TEST METHOD:**

This letter report represents the results of our testing of the below referenced specimen(s) to the requirements contained in the following standard(s):

IEC62321 (2008): Electrotechnical products – Determination of levels of six regulated substances: (Lead, Mercury, Cadmium, Hexavalent Chromium, Polybrominated biphenyls, Polybrominated diphenyl ethers)

### **SPECIMEN DESCRIPTION:**

The samples submitted by the client were component materials for Product(s): NitusPRO. The materials and components in question are listed on the following pages.

### **GENERAL DESCRIPTION:**

Testing was conducted at the Intertek facility, located at 1717 Arlingate Lane, Columbus, OH 43228. Testing began on 11/12/2014 and concluded on 11/24/2014. Samples were received in good condition on 10/23/2014, and were given the unique identification COL1410230719-001.

X-ray fluorescence spectrometry is a comparative analysis technique and is subject to matrix effects, spectral interferences, and sample non-homogeneity concerns that are commonly encountered in electrical and electronic equipment materials. XRF is unable to differentiate hexavalent chromium from all chromium species. Similarly, XRF is unable to differentiate PBB or PBDE from all brominated compounds. XRF analysis utility is therefore generally understood as a screening tool with inherent limitations and a lesser degree of accuracy and precision than more traditional wet chemical analysis.

The XRF results for a sample are used when the values obtained clearly meet/fail the Pass/Fail criteria of the standard. Any results that are reported by the XRF gun as "Inconclusive" due to margin of acceptance or the inability to differentiate between substances should be analyzed further using wet chemical analysis to provide more conclusive results.

### **TEST RESULTS:**

The below list represents a summary of the tests & results, including any which are pending completion or have yet to be conducted.

The following table contains information that is specific to the test methods and standard limits used for the analysis of the below samples.

Test Description	Section	Substance	Method Detection Limit	Acceptance Criterion
XRF	6	Cd	50ppm	<100
XRF	6	Br, Cr, Hg, & Pb	50ppm	<1000
ICP	7	Hg	5ppm	<1000
ICP	8-10	Cd	5ppm	<100
ICP	8-10	Pb	5ppm	<1000

### **SAMPLE RESULTS:**



Material: Pre-Amp Chamber Enclosure

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	54	Pass
XRF	Hg	<1000 ppm	ND	Pass
XRF	Pb	<1000 ppm	ND	Pass
XRF	Cr	<1000 ppm	16.82%	Inconclusive
XRF	Br	<1000 ppm	ND	Pass

Material: Pre-Amp Chamber Enclosure Label

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	ND	Pass
ICP	Hg	<1000 ppm	453	Pass
XRF	Pb	<1000 ppm	ND	Pass
XRF	Cr	<1000 ppm	509	Pass
XRF	Br	<1000 ppm	ND	Pass



Material: Armored Flexible Conduit

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
ICP	Cd	<100 ppm	ND	Pass
XRF	Hg	<1000 ppm	ND	Pass
ICP	Pb	<1000 ppm	408	Pass
XRF	Cr	<1000 ppm	ND	Pass
XRF	Br	<1000 ppm	ND	Pass



Material: Proportional Counter (Detector Ion Chamber)

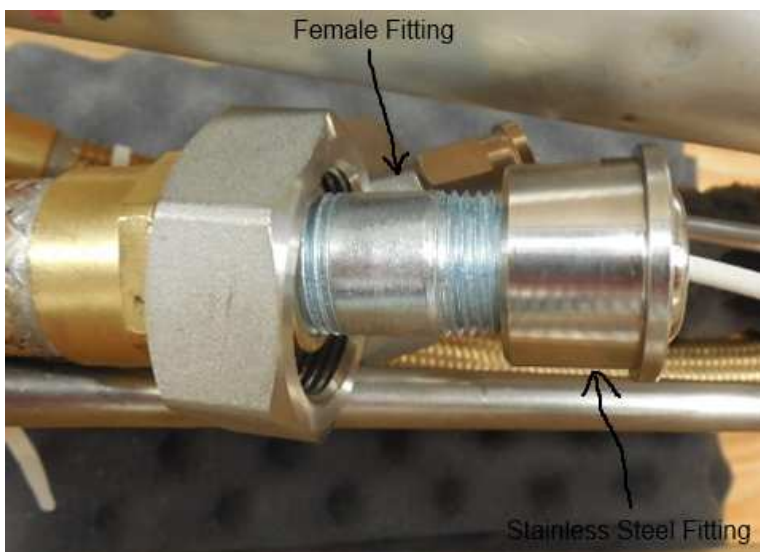
Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	76	Inconclusive
XRF	Hg	<1000 ppm	ND	Pass
XRF	Pb	<1000 ppm	ND	Pass
XRF	Cr	<1000 ppm	16.59%	Inconclusive
XRF	Br	<1000 ppm	ND	Pass





Material: Armored Flexible Conduit Brass Fitting

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
ICP	Cd	<100 ppm	ND	Pass
XRF	Hg	<1000 ppm	ND	Pass
ICP	Pb	<1000 ppm	2.59%	Exempt <sup>1</sup>
XRF	Cr	<1000 ppm	ND	Pass
XRF	Br	<1000 ppm	ND	Pass



Material: Female Fitting

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	ND	Pass
XRF	Hg	<1000 ppm	ND	Pass
XRF	Pb	<1000 ppm	ND	Pass
XRF	Cr	<1000 ppm	294	Pass
XRF	Br	<1000 ppm	ND	Pass

<sup>1</sup> This material is deemed exempt per Directive 2011/65/EU of the European Parliament and of the council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex III section 6 (c): Copper alloy containing up to 4% lead by weight.

Material: Stainless Steel Fitting

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	77	Inconclusive
XRF	Hg	<1000 ppm	ND	Pass
XRF	Pb	<1000 ppm	ND	Pass
XRF	Cr	<1000 ppm	16.64%	Inconclusive
XRF	Br	<1000 ppm	ND	Pass



Material: Profiler Junction Box

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	ND	Pass
XRF	Hg	<1000 ppm	ND	Pass
XRF	Pb	<1000 ppm	186	Pass
XRF	Cr	<1000 ppm	89	Pass
XRF	Br	<1000 ppm	ND	Pass



Material: Bolt

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	ND	Pass
XRF	Hg	<1000 ppm	ND	Pass
XRF	Pb	<1000 ppm	ND	Pass
XRF	Cr	<1000 ppm	191	Pass
XRF	Br	<1000 ppm	ND	Pass





Material: White Paper Label

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	ND	Pass
XRF	Hg	<1000 ppm	ND	Pass
XRF	Pb	<1000 ppm	98.7	Pass
XRF	Cr	<1000 ppm	68	Pass
XRF	Br	<1000 ppm	ND	Pass

Material: Red Metal Label

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	ND	Pass
XRF	Hg	<1000 ppm	ND	Pass
XRF	Pb	<1000 ppm	ND	Pass
XRF	Cr	<1000 ppm	99	Pass
XRF	Br	<1000 ppm	ND	Pass

Material: Blue Metal Label

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	ND	Pass
XRF	Hg	<1000 ppm	ND	Pass
XRF	Pb	<1000 ppm	ND	Pass
XRF	Cr	<1000 ppm	ND	Pass
XRF	Br	<1000 ppm	ND	Pass

Material: Yellow Metal Label

Test Description	Restricted Substance	Acceptance Criterion	Results (ppm)	Pass/Fail
XRF	Cd	<100 ppm	ND	Pass
XRF	Hg	<1000 ppm	ND	Pass
XRF	Pb	<1000 ppm	ND	Pass
ICP	Cr	<1000 ppm	258	Pass
XRF	Br	<1000 ppm	ND	Pass

## **CONCLUSION**

A representative sample of the product covered by this report has been evaluated and tested to the applicable requirements of the standards indicated above.

Please note: this Report does not represent authorization for the applicant or manufacturer to apply Intertek Certification Marks.

Tested by: Joel Parsley  
Title: RoHS Compliance Analyst

Reviewed by: Marissa Evans  
Title: Chemical Lab Supervisor

Signature:



Signature:



Tested by: Nicholas Unger  
Title: Engineer

Signature:



Parts Name		中國RoHS檢測報告 Toxic and Hazardous Substances or Eleme			
		Pb	Hg	Cd	Cr6+
接线盒	Profiler Junction Box	O	O	O	O
探测器电离室	Proportional Counter (Detector Ion Chamber)	O	O	O	O
前置放大器 机壳	Pre-Amp Chamber Enclosure	O	O	O	O
印制电路配件/母板	PCA, Backplane	X	O	O	O
印制电路配件/电源	PCA, Low Noise Power Supply	X	O	O	O
印制电路配件/高压电源	PCA, Digitizer, High Voltage Power Supply	X	O	O	O
印制电路配件/调节器	PCA, Controller	X	O	O	O
印制电路配件/前置放大器	PCA, Preamp	X	O	O	O
配件	Fittings	O	O	O	O
管道, 武装的 伸缩	Armored Flexible Conduits	X	O	O	O
标签	Labels	O	O	O	O

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006标准规定的限量要求以下.

O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006标准规定的限量要求.

X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006



nts (NitusPRO)

PBB	PBDE
O	O
O	O
O	O
O	O
O	O
O	O
O	O
O	O
O	O
O	O
O	O