

2007年 1月 18日

環境關理 物質 不使用 證明書

會社名：히로세코리아(주)

部 署：품질보증팀

責任者：차 재환 차장



貴社에 販賣하는 製品 및 製品의 使用材料, 包裝材, 製造工程에
含有되는 添加劑 等に 對하여 貴社가 要求하는 管理水準
(使用禁止對象)의 物質을 使用하고 있지 않음을 證明합니다.
當社의 製品 및 製品의 使用材料, 包裝材, 製造工程에 含有되는
添加劑 等に 對하여 以下の 成分으로 構成되어 있음을 報告 합니다.

(1) 製品 使用素材

NO	제품명	부품명	원자재명	원자재 MAKER	비 고
1	DF1B-2022PCF	단자	C5191R	NIKKO METAL	

(2) 測定可能物質의 ICP Data는 別紙 參照 要望

(3) 測定可能物質의 成分 分析 Data는 別紙 參照 要望

以上

TEST REPORT

Client: Hirose Electric Co., Ltd.

Report No.: 33911132-01M- 004 1/1
 Date Issued: 17/Nov/2006
 Date Tested: 16/Nov/2006
 Sample Receiving Date : 10/Nov/2006

Subject: Analysis for RoHS/ELV Directive

Authorized by Yoshiharu Namegaya
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 Tested by Kouta Kumao

RESULTS ARE REPORTED AS FOLLOWS

Sample Name	C5191 Nippon Mining & Metals			
Test Item	Results	Quantitation Limit	Unit	Test Method
Cadmium	N.D.	1	ppm	With reference to EPA Method 3052 (Microwave digestion - ICP-MS method)
Lead	17	10	ppm	With reference to EPA Method 3052 (Microwave digestion - ICP-MS method)
Mercury	N.D.	1	ppm	With reference to EPA Method 3052 (Microwave digestion - ICP-MS method)
Total Chromium	N.D.	1	ppm	With reference to EPA Method 3052 (Microwave digestion - ICP-MS method)
(End of report)				
Instruments: ICP-MS; Agilent Technologies, Agilent 7500c				
Note: N.D. = Not Detected (Less than Quantitation Limit)				

The results relate only to the items tested.

To. HIROSE ELECTRIC CO., LTD.

MATERIAL SAFETY DATA SHEET

MSDS FILE No. (KURAMI WORKS) : 05-1113

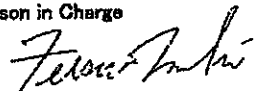
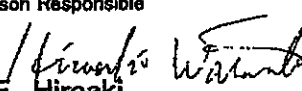
(based on Form OSHA-174)

IDENTITY (AS Used on Label and List)

Product Class : Tin Plated Phosphor Bronze Strip
 Trade Name : JIS H3110 C5191R(SM)
 CAS No. : Copper: 7440-50-8, Tin: 7440-31-5, Phosphor: 7723-14-0
 Chemical Composition

	Content(wt-%)	CAS No.
Tin(Sn)	5.5~7.0	7440-31-5
Phosphor(P)	0.03~0.35	7723-14-0
Copper(Cu)	Balance	7440-50-8
Sn+P+Cu	99.5≤	-

Section I

Manufacturer's Name NIKKO METAL MANUFACTURING CO., LTD. KURAMI WORKS	Date Prepared January 27th, 2005
Address 3 Kurami Samukawa-cho Kouza-gun Kanagawa prefecture 253-0101 JAPAN	Signature of Person in Charge  MAKI, Tetsuo Senior Technical Supervisor, Quality Assurance
Telephone Number for Information (Quality Assurance) +81-467-75-7285	Signature of Person Responsible  WATANABE, Hiroaki Manager, Quality Assurance Section
Facsimile Number for Information (Quality Assurance) +81-467-74-6971	

Section II Hazardous Ingredients / Identity Information

Hazardous Components (Specific Chemical Identity : Names OSHA Pel ACGIH TLV)

Nothing for ordinary service condition

Section III Physical / Chemical Characteristics

Boiling Point	2630 deg. centi.	Specific Gravity (H2O = 1)	8.83
Vapor Pressure (mmHg)	N/A	Melting Point	1045 deg. centi. for C5191 Phosphor Bronze 232 deg. centi. for Plated Tin
Vapor Density (Air = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	N/A		
Appearance and Odor	Shiny Silver (solid) : Odor - None		

Section IV Fire and Explosion Hazard Data

Flash Point (Method Used)	N/A	Flammable Limits	N/A	LEL	N/A	UEL	N/A
Extinguishing Media	N/A (stable , nonflammable substance)						
Special Fire Fighting Procedures	Not specified						
Unusual Fire and Explosion Hazards	Metal products do not present fire or explosion hazards under normal conditions.						

Section V Reactivity Data			
Stability	Unstable		Conditions to Avoid
	Stable	X	

Incompatibility (Materials to Avoid) **Nothing**

Hazardous Decomposition or Byproducts **Nothing**

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

Section VI Health Hazard Data

Route(s) of Entry :	Inhalation ?	Skin ?	Ingestion ?
	N/A	N/A	N/A

Health Hazardous (Acute and Chronic) **N/A**

Carcinogenicity :	NTP ?	IARC Monographs ?	OSHA Regulated ?
	N/A	N/A	N/A

Signs and Symptoms of Exposure **N/A**

Medical Conditions **N/A**

Generally Aggravated by Exposure **N/A**

Emergency and First Aid Procedures **N/A**

Section VII Precautions for State Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled **N/A**

Waste Disposal Method **Collect scrap for remelting.**

Precautions to Be Taken in Handling and storing

For Handling

- Put safety gloves on to protect your hands from edges of coils which might cut your hands.
- Wear safety glasses when metal powders or chips are expected to be generated in the work.
- Put safety shoes on when handling heavy coils.

For Storing

- The environment of stocking area should be free from acid, alkali, chloride, sulfide and other corrosive chemicals to prevent from rusting or corrosion.

Other Precautions **No special requirements**

Section VIII Control Measures

Respiratory Protection (Specify Type)
Wearing a mask be recommended in the work such as abrasion and buffing which generates metal powders or chips.

Ventilation	Local Exhaust	Special
	None	None
	Mechanical (General)	Other
	None	None

Protective Gloves
Put safety gloves on to protect your hands from edges of coils which might cut your hands.

Eye Protection
Wear safety glasses when metal powder is expected to be generated in the work.

Other Protective Clothing or Equipment
Put safety shoes on when handling heavy coils.

Work / Hygienic Practices **None**

Influence to environments
Fish on toxicity : TLm 48 hr. on CuSO4
Salmogairdeneri : 0.038 ~ 0.8 ppm
Oryzias Latipes : 2.1 ~ 24ppm