



东莞市一佳电子通讯科技有限公司

Dongguan YiJia Electronics Communication Technology Co.,Ltd.

规格承认书

SPECIFICATION FOR APPROVAL

日期 2022/04/09
Date

编号 22040901
File No

版本 1.0
Revision

客户 天波

CUSTOMER:

客户料号 F255

CUSTOMER NO:

品名 WIFI Antenna L=205mm MHF

PART NAME:

供方料号 YJW01.076.190.302A

SUPPLIER NO:

送样日期Date:

送样数量Q “TY:

客户确认CUSTOMER APPROVED BY

APPROVAL	CHIEF	SUPERVISOR

供方确认 SUPPLIER SIGNATURE

APPROVAL	CHECK	DESIGN
 ChenGuoqiang	XieLi	ChenXingyi

YJ-RD-F04-A



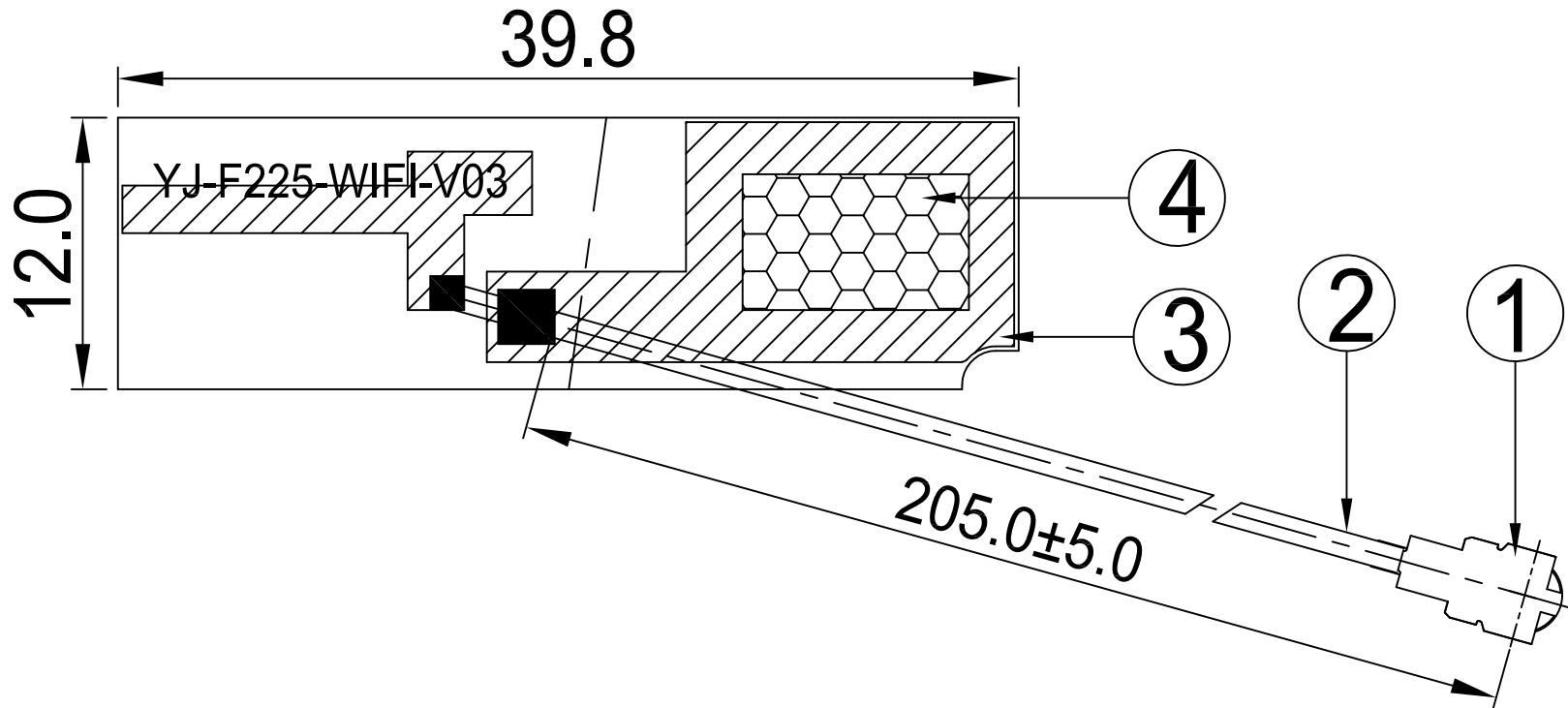
承认书项目表

NO	内容 (Contents)	页数 (Number of Page)	页码 (Page Code)
1	承认书封面 (Spec Cover)	1	1
2	承认书项目表 (Spec Item)	1	2
3	工程成品图 (Drawing)	1	3
4	天线规格 (Antenna Specification)	1	4
5	S参数测试 (S Parameter)	1	5
6	无源测试 (Passive Test)	3	6 ~ 8
7	方向图 (Radiation Pattern)	2	9 ~ 10
8	有源测试 (Active Test)	1	11
9	天线装配图 (Antenna Profile)	2	12 ~ 13
10	材质证明 (Material Certificate)	27	14 ~ 41
11	RoHS报告 (RoHS Test Report)	**	**
12	N/A	N/A	N/A
13	-	-	-

RoHS
Compatible

CUSTOMER	
PART NO	

REV.	DESCRIPTION	DATE
△A	首次发行	2022-03-08
△B	修改FPC及线长	2022-04-06
△C	修改线长	2022-04-09



4	EVA+Paster	10.0*6.0*T14.0mm	EVA+Paster	EVA11XXA.P01	1
3	FPC	39.8*12.0mm	FPC	FPC11XXA.P01	1
2	Coaxial Cable	O.D.1.13 Black	O.D.1.13	COA100XXA.P01	1
1	Mini Connector	Au Plated 1代	Cu	TER100XXA.P01	1
NO	PART NAME	DESCRIPTION	Material	Part Number	Q.TY



东莞市一佳电子通讯科技有限公司
Dongguan YiJia Electronics Communication Technology Co.,Ltd. Tel:0769-82586086 Fax:0769-82586086

PART NAME: WIFI Antenna L=205mm MHF			
PART NO.: YJW01.076.190.302A		DATE: 2022-04-09	
APPROVED BY	CHECKED BY	DESIGNED BY	 Tolerance X.X ±0.50 X.XX±0.15 X° ±3°
覃健宇	周颖杰	廖光喜	
UNITS: mm SCALE: 1/1 REVISION: C			



天线规格

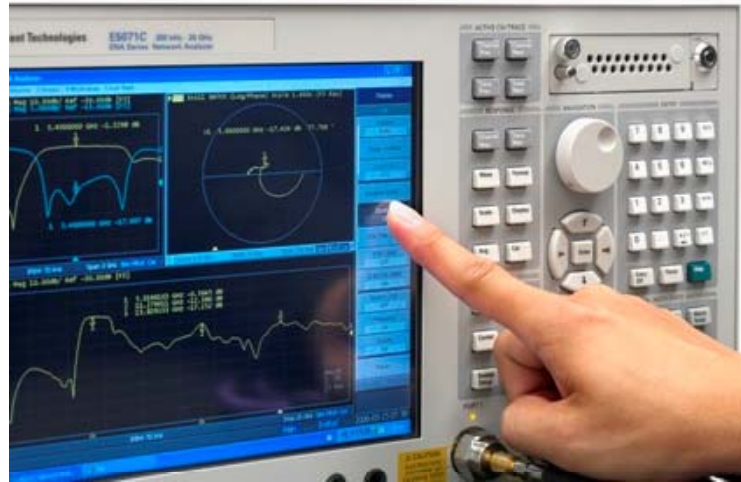
Antenna Specification

Electrical Properties	
Frequency	2.4-2.5GHz 5.15-5.85GHz
Impedance	50 Ohm Nominal
V.S.W.R	2.0 Max
Gain	0.6 dBi@2.4-2.5GHz 4.6 dBi@5.15-5.85GHz
Radiation	Omni-directional
Polarization	Linear
Physical Properties	
Connector	1代IPEX
Antenna Type	FPC Antenna
Cable Length	205mm
Cable Color	Black
Operating Temp.	-40 ~ +85 °C
Storage Temp / Humidity	25±5°C / <70%

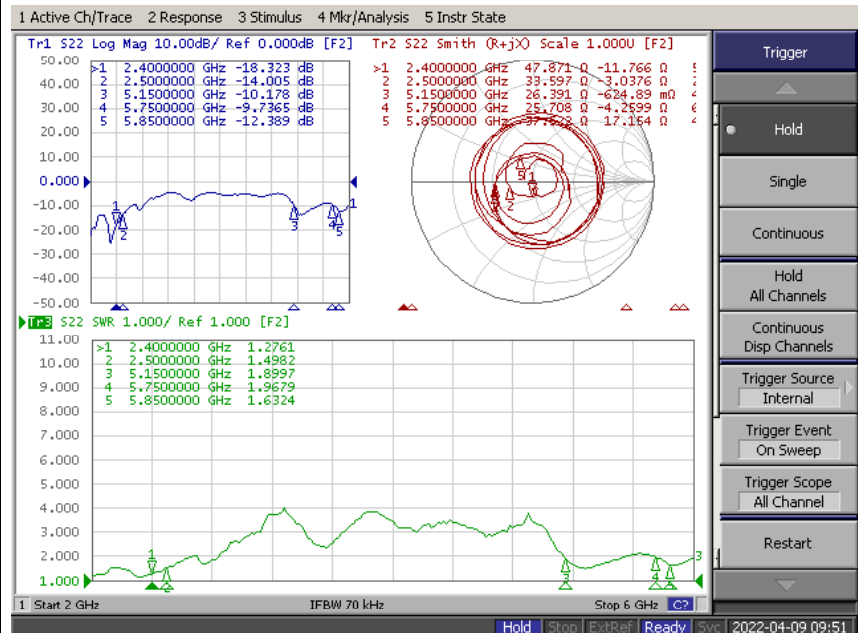


Antenna Performance Test

**Agilent
E5071B**

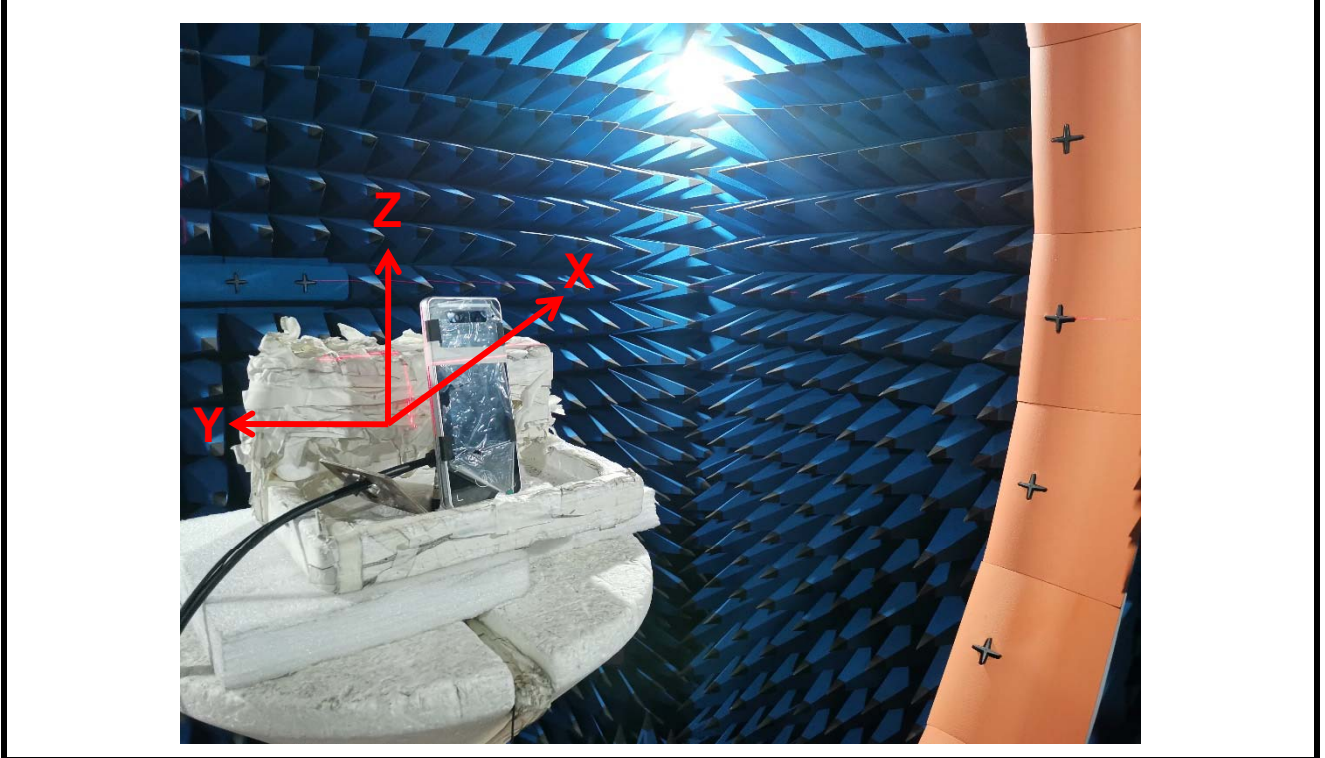
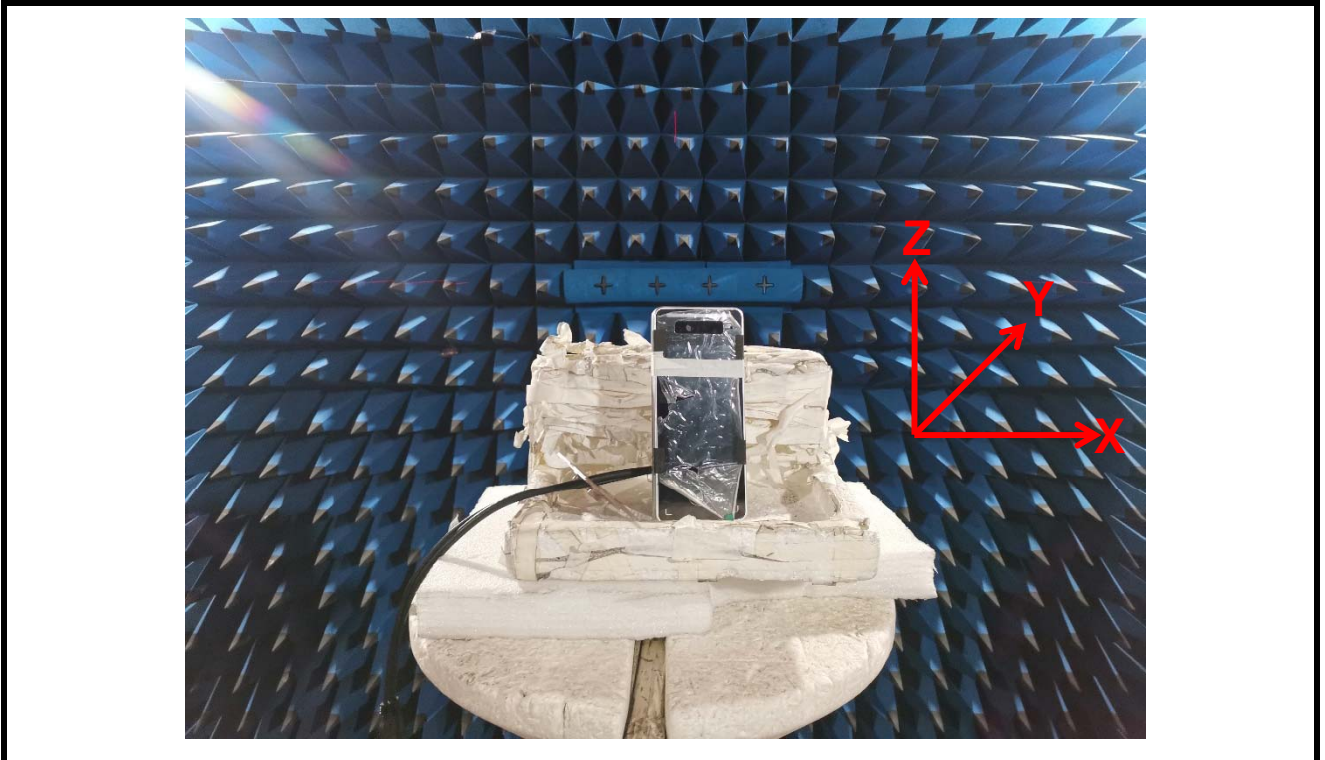


**S
Parameter
Test //
WIFI
Antenna**





Antenna Passive Test





Passive Test For WiFi Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	28.4	-5.5	0.4
2410	28.7	-5.4	0.5
2420	28.4	-5.5	0.4
2430	29.4	-5.3	0.6
2440	29.9	-5.2	0.4
2450	29.8	-5.3	0.3
2460	29.0	-5.4	0.4
2470	30.3	-5.2	0.3
2480	29.2	-5.4	-0.1
2490	28.9	-5.4	-0.2
2500	28.1	-5.5	-0.5

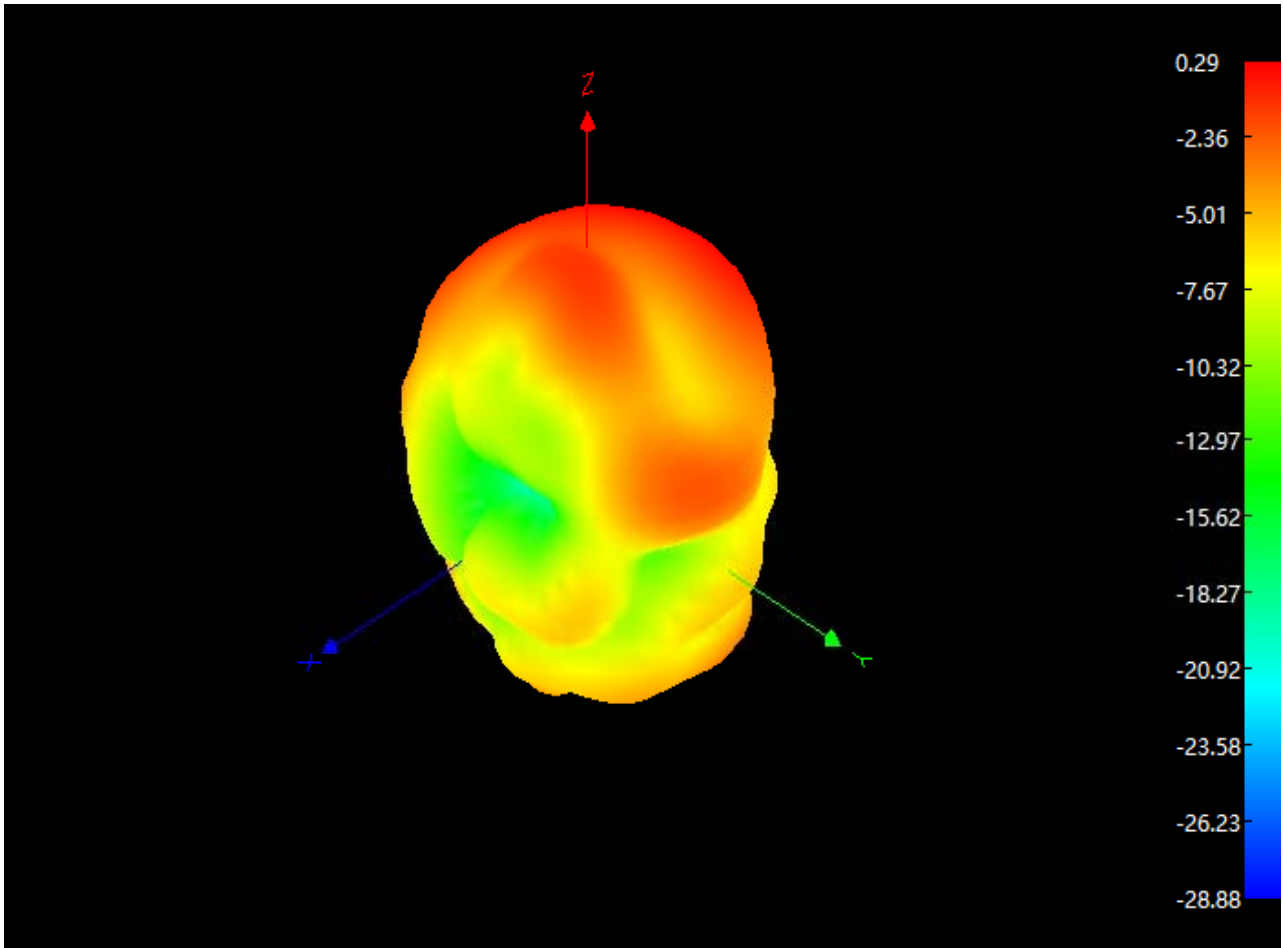


Passive Test For WiFi Antenna(5.8G)

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	46.8	-3.3	4.1
5200	53.1	-2.8	4.6
5250	51.5	-2.9	4.5
5300	48.8	-3.1	4.2
5350	49.7	-3.0	4.1
5400	52.7	-2.8	4.2
5450	46.9	-3.3	3.4
5500	44.9	-3.5	3.3
5550	51.6	-2.9	3.8
5600	48.0	-3.2	3.5
5650	43.7	-3.6	3.1
5700	46.1	-3.4	3.2
5750	47.3	-3.3	3.2
5800	51.5	-2.9	3.7
5850	50.7	-3.0	3.4

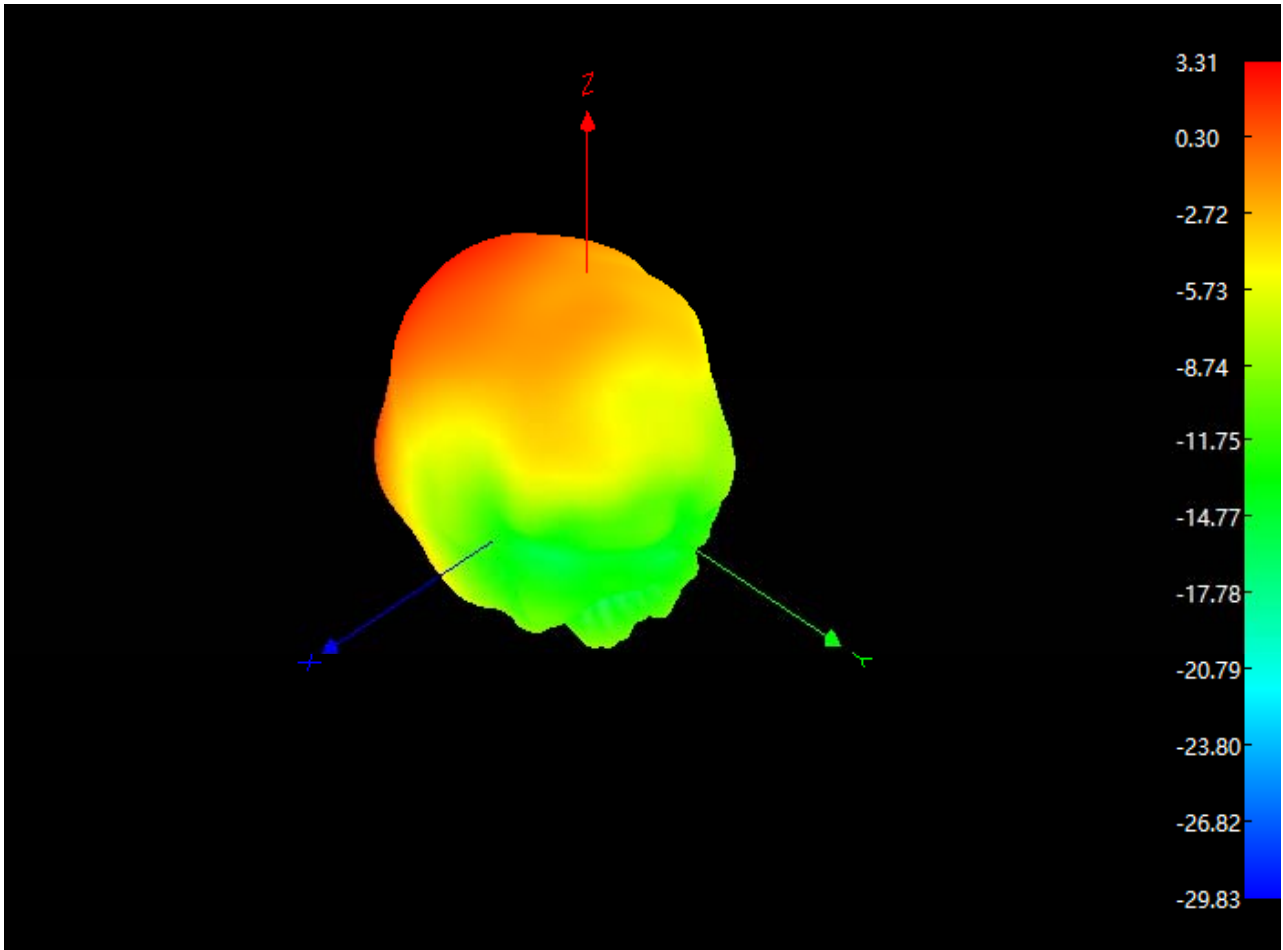


Radiation Pattern For WIFI Antenna(2450MHz)





Radiation Pattern For WIFI Antenna(5500MHz)





Antenna Active Test

Active Test For WIFI Antenna					
Band	Channel	Data Rate	TRP	Data Rate	TIS
WIFI 2.4G 802.11b	1	11Mbps	10.5	11Mbps	-77.6
	6		10.2		-79.2
	11		10.0		-79.0
WIFI 2.4G 802.11g	1	54Mbps	8.5	54Mbps	-62.8
	6		9.0		-64.6
	11		8.8		-65.4
WIFI 2.4G 802.11n	1	MCS7	8.0	MCS7	-57.1
	6		7.8		-60.3
	11		8.4		-60.2
WIFI 5G 802.11a	149	54Mbps	9.6	54Mbps	-66.7
	157		10.0		-66.5
	165		8.3		-66.4

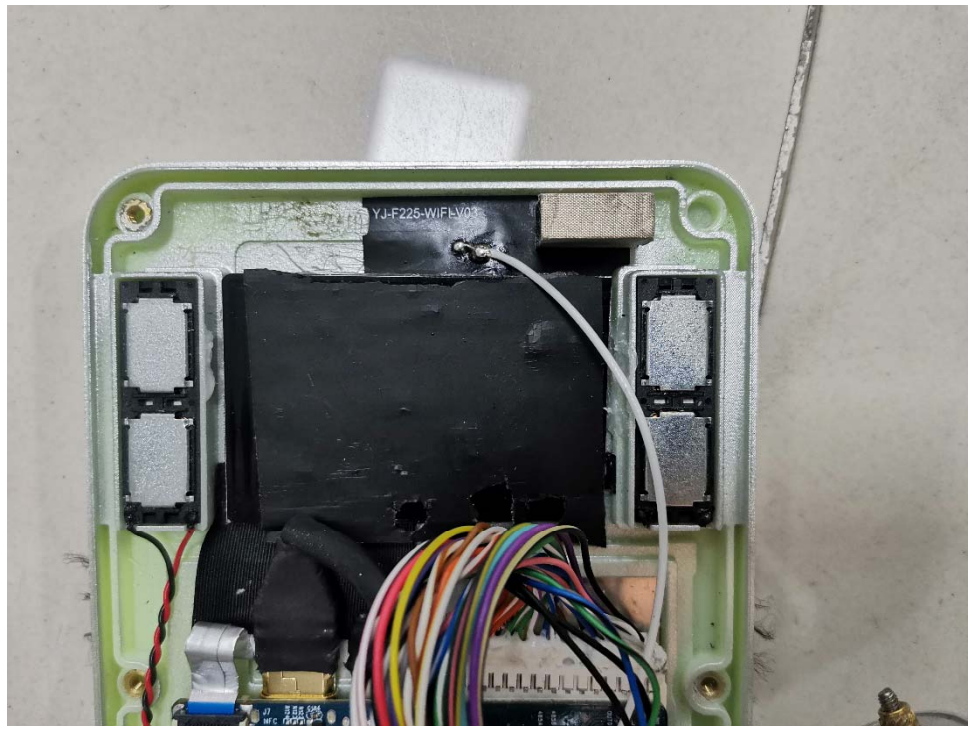
add: 东莞市长安镇沙头社区木鱼路59号元富工业区 Tel:0769-82586086 Fax:0769-82586086



Device

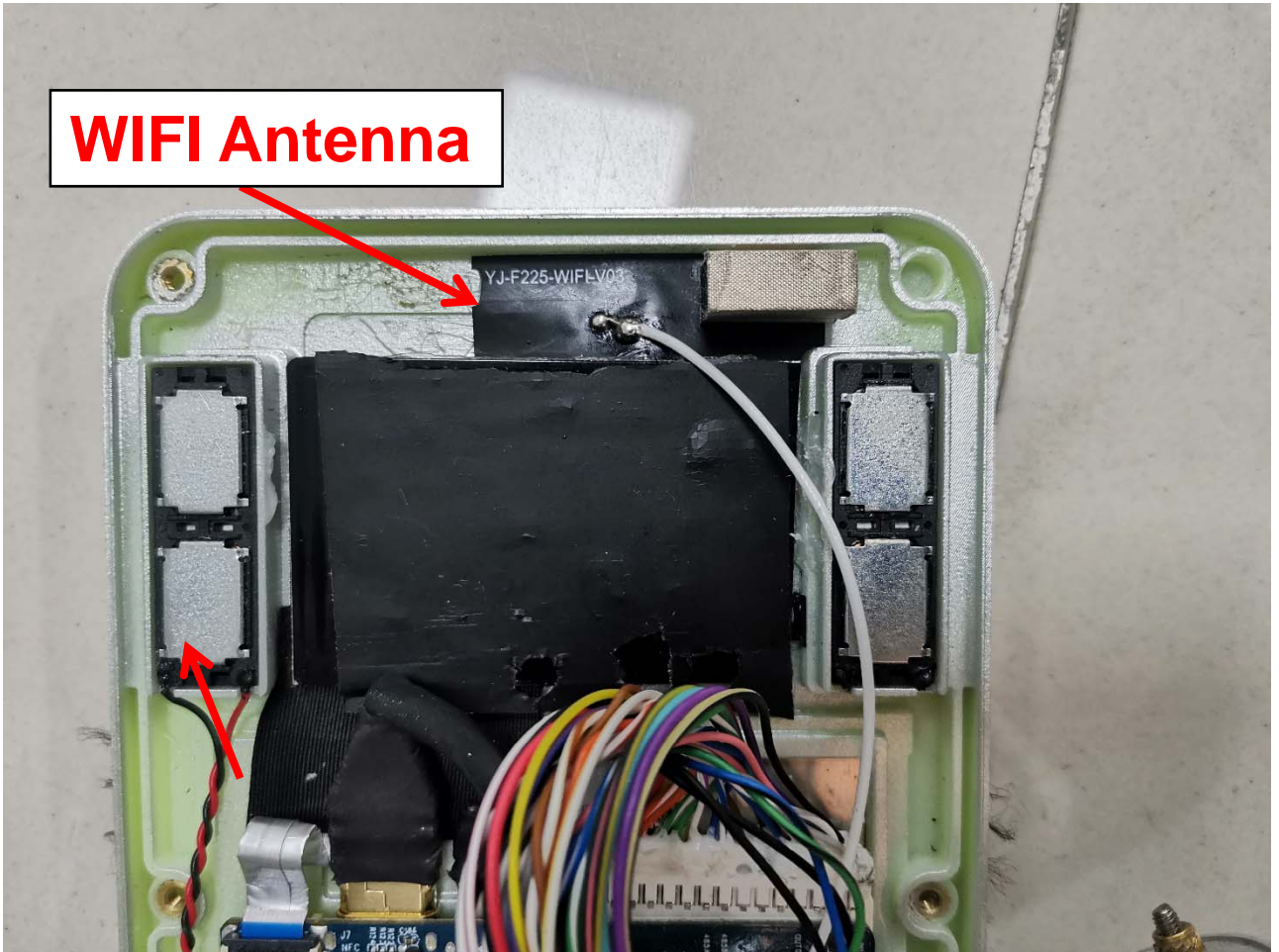


*WIFI
Antenna*





WIFI Antenna



Material Safety Data Sheet

ITEM : PSM-800@ /SMH-800

Identity (Trade Name As Used On Label)

SECTION 1 IDENTIFICATION

Manufacturer

UNIRES CHEMICAL INDUSTRIAL CO.,LTD.

Address

22CHING CHIAN 4thRD.KUANYIN INDUSTRIAL

DISTRICT TAOYUAN HSIEN TAIWAN

Phone Number (For Information)

886-3-4836651 (fax)886-3-4837487

Emergency Phone Number

Telex * **886-3-4836651**

MSDS Number* **20110701AAA**

CAS Number*

07/01/2011

Data Prepared

HUANG CHIN HUAI

Prepared By*

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS No.	CONTENTS(%)	OSHA (PEL)	ACGIH (TLV)
Heavy aromtic naphtha(petroleum)	64742-94-5	<12%	N.D.	N.D.
Epoxy-Acrylic derivative	Trade secret	<48%	N.D.	N.D.
Barium sulfate	7727-43-7	<20%	dust 15mg/m3	10mg/m3
Silica, amorphous, fused	7631-86-9	<8%	N.D.	dustTLV10mg/m3
Dipropylene glycol methyl ether	34590-94-8	<12%	100ppm	200ppm

SECTION 3 HAZARDS IDENTIFICATION

INHALATION : Highly concentrated vapor irritates nose, throat ant and lungs. May cause headache and dizziness.

EYE CONTACT : Slight irritation

SKIN CONTACT : Slight irritation

INGESTION : Harmful, if swallowed.

SECTION 4 FIRST AID MEASURES

SKIN CONTACT : Wash with plenty of water using a soap. Do not use organic solvents.

EYE CONTACT : Rinse immediately with clean water for at least 15 minutes. If irritation persists, seek medical attention

INHALATION : Immediately carry the victim to a place where fresh air is available. If irritation persists, treat with oxygen and seek medical attention.

INGESTION :obtain medical advice immediately. It is not recommended that vomiting be induced except on medical advice

SECTION 5**FIRE-FIGHTING MEASURES**

SUITABLE EXTINGUISHING MEDIA	: Carbon dioxide, foam, powder.
UNSUITABLE EXTINGUISHING MEDIA	: water spray and water jet.
EXPOSURE HAZARDS	: Burning may release oxides of carbon, nitrogen, sulfur and other toxic gases or vapors. Do not release chemically contaminated water into drains or surface waters, and soil according to local regulations.
PROTECTIVE EQUIPMENT	: Use full protective clothing and self-contained breathing apparatus.
FIR FIREFIGHTERS MEASURES	: promptly move transferable containers to another safety area .Check the speed of fire. Extinguish the fire with suitable extinguisher from the windward side

SECTION 6**ACCTDENTAL RELEASE MEASURES**

PERSONAL PRECAUTION	: Avoid ignition sources. Avoid contact with skin, eyes and clothing. Avoid inhaling vapor.
ENVIRINMENTAL PRECAUTIONS	: Prevent contamination of soil, drains and surface waters
METHODS FOR CLEANING	: Scoop up or absorb into combustible material, wipe out a stain in use organic solvents. Dispose in accordance with local regulations.

SECTION 7**HANDLING AND STORAGE**

HANDLTNG	: Handle with care. Avoid ignition sources. Ensure good ventilation and local exhaust. Do not smoke at the workplace
STORAGE	: Store in the original sealed container at less than 20°C.Avoid direct exposure to UV and sunlights.

SECTION 8**EXPOSURE CONTROLS/PERSINAL PROTECTION**

People who know they are chemically sensitive, should avoid contact with this product.

TECHNICAL PROTECTIVE MEASURES	: No special safety measures required.
EXPOSURE CONTROL LIMITS	: (see PEL and TLV values shown in shown in section 2)
RESPIRATORY PROTECTION	: Wear suitable mask to avoid inhalation of vapor.
HAND PROTECTION	: wear chemical resistant gloves.
EYE PROTECTION	: wear safety glasses.
SKIN PROTECTION	: wear suitable protective working cloths.

SECTION 9**PHYSICAL AND CHEMICAL PROPERTIES**

BOILING	: *156°C(760mmHg)	COLOR	: black
FLASH	: 75.0°C	FORM	: Paste
VAPOR PRESSURE	: * 2.00mmHg(40°C)	VAPOR DENSITY	: *6.08(Air=1)
SOLUBILITY IN WATER	: * <10.7wt%	ODOR	: Mild odor
		SPECIFIC GRAVITY	: 1.18

*Data of the organic solvents or monomers contained in this product is product is quoted.

SECTION 10 STABILITY AND REACTIVITY

STABILITY : Stable
CONDITIONS TO AVOID : Heat and sunlight.
MATERIALS TO AVOID : Strong acids, strong bases, peroxides and strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS : Burning may release oxides of carbon, nitrogen, sulfur and other toxic gases or vapors.

SECTION 11 TOXICOLGICAL INFORMATION

PRIMARY ROUTE(S) OF ENTRY
 DERMAL INHALATION INGESTION

TOXICITY STUDIES : Toxicity studies have not been carried out in this product. Toxicity information available for the ingredients listed in section 2 is given below.

HEALTH HAZARDS
ACUTE INGESTION TOXICITY : N.E.
ACUTE SKIN IRRITATION : Slightly irritant
MUTAGENICITY : NONE

CARCINOGENICITY
 NTP IARC OSHA NOT LISTED

SYMPTOMS OF OVER EXPOSURE
INHALATION : Slight irritation to respiratory tract. Highly concentrated vapor may cause headaches, and nausea.
EYES : Slight irritation
SKIN : Slight irritation
INGESTION : Expected to have a low order of toxicity.

SEVTION 12 ECOLOGICAL INFORMATION

ACUTE FISH TOXICITY : Ecological data are not available
BIODEGRADABILTY : No data available.

SEVTION 13 DISPOSAL CONSIDERATIONS

Incineration or landfill in accordance with local regulations.

SEVTION 14 TRANSPORT INFORMATION

ADR : Inflammable liquid
IMDG-CODE : Free
IATA : Free
US DOT : Combustible liquid

UN : Free
FLASH POINT : 75.0°C

SECTION 15	REGULATORY INFORMATION
-------------------	-------------------------------

EEC LABELING : Harmful

RISK PHRASES : Harmful : may cause lung damage if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES : Avoid contact with skin.
: Do not breathe vapor.
: If swallowed, do not induce vomiting :seek medical advice immediately and show this container or label.
: Avoid release to the environment. Refer to special instructions/Safety data sheets.

SECTION 16	OTHER INFORMATION
-------------------	--------------------------

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.


It may not be valid for this material, if used in combination with any other materials.

Material safety data sheet

Article and manufacturer informatio

Item name :KTM-150F WM
Ohter name: NONE
Recommended use: heat hardening printing ink
Name of manufacturer or supplier: supplier - keyway Technology Co., Ltd Manufacturer - kaiyao Technology Co., Ltd
Address of manufacturer or supplier: supplier - No.18, Lane 646, Boai street, Zhubei City, Xinzhu County Factory - No.18, Lane 646, Boai street, Zhubei City, Xinzhu County
Emergency contact: (03) 555-1822 Fax: (03) 553-1338

Hazard identification data

Hazard classification: flammable liquid, fire hazard Category 3, acute toxicity category 5.
Label content: flammable mixed solvent

Symbols: warning:
Hazard warning message: flammable substances, may be harmful if inhaled.
Hazard prevention measures: tightly cover the container; keep away from the ignition source - no smoking; place the container in a well ventilated place; take off the clothes as soon as they are polluted; wear eye mask / face shield; do not eat or drink when using, and avoid release to the environment
Other hazards:

Component identification data

INGREDIENTS	% by Wt	CAS No.
Polyester resin (polymer)	20~25%	28064-14-4
Mixed solvent	20~25 %	106-65-0 ; 1119-40-0 ; 627-93-0
Titanium dioxide	30~35%	13463-67-7
Filler	10~15 %	14807-96-6
Hexamethylene diisocyanate refers to oligomer	5~10 %	21093-51-6
Butyl acetate	1~5 %	627-93-0

First aid measures

First aid methods of different exposure routes:
Inhalation:1. remove the patient to fresh air immediately. It can only cause nose irritation and may be harmful to people. Skin contact: 1. Immediately wash with water.
Eye contact: 1. Immediately open the eyelids and wash them with mild water.
Ingestion:
Most important symptoms:
Protection for first aid personnel: wear protective gloves to avoid contact with pollutants.
Tips for doctors:.

Fire fighting measures

Suitable extinguishing agent: dry powder

Special hazards that may be encountered during fire fighting:

Special fire fighting procedures: 1. Remove the container from the fire site and put out the fire in the upwind.

2. Stop leakage without endangering personnel safety.

3. If the leakage cannot be stopped and the surrounding area is empty, the fire will burn out.

Special protective equipment for firefighters: Firefighters must wear air breathing apparatus, fire clothing and protective gloves.

Leakage treatment method

Personal precautions: 1. Restrict personnel access until the overflow area is completely clean.

2. It is determined that the trained personnel are responsible for the cleaning work.

3. Wear appropriate personal protective equipment.

Environmental precautions:

1. Ventilate the area.

2. Extinguish or remove all sources of ignition.

3. Report to relevant units of safety, health and environmental protection of the government.

Cleaning method: 1. Do not touch the leakage. 2. Avoid discharging into sewer or other confined space. 3. Try to prevent or reduce the leakage under the condition of safety permission. 4. Use sand, soil or other absorbing substances that do not react with leakage substances to enclose the leakage. 5. In case of a small amount of leakage, absorb it with absorbent that will not react with the leakage. Contaminated absorbents and spills are equally hazardous and should be placed in properly capped and labeled containers. Flush the spill area with water. 6. In case of a large number of spills, contact the fire department, emergency treatment unit and supplier for assistance.

Safe handling and storage methods:

Without special measures, it is not inflammable and explosive.

Storage: no corrosive container, no reactivity, low flammability, non flammable.

Exposure precautions

Engineering control: local exhaust device or integral air exchange device.

Control parameters: eight hour daily average allowable concentration / short time

average allowable concentration / maximum allowable concentration:

Personal protective equipment: respiratory protection:

Hand protection: impervious gloves, butyl rubber recommended, Teflon, 4h, barricale, chemrel

Eye protection: 1. Goggles (minimum 8 inches). 2. splash proof safety goggles. 3. Do not wear contact lenses. Skin and body protection: chemical protective clothing.

Physical and chemical properties

Material state: viscous paste liquid shape: paste liquid

Color: smell: Fragrance

PH value: slightly acidic boiling point / melting point range: OC /---

Decomposition temperature: flash point not measured:

Test method: open cup and close cup

Autoignition temperature: explosion limit: LEL: uel:

Vapor pressure: vapor density: > 1 (air 1)/

Specific gravity: 1.2 ~ 1.4 (25 / 25 °C) for water solubility:

Stability and reactivity

Stability: under normal conditions
Possible hazardous reactions under special conditions:
Conditions to avoid:
Substances to be avoided: acids.
Hazardous decomposition:

Toxicity data

Exposure route: skin contact, eye contact, ingestion
Symptoms: eye damage
Acute toxicity: inhalation:
Skin: causes mild irritation. Eyes: cause mild irritation. Ingestion:
LD50 (test animal, absorption pathway) local effect:---
Sensitization:---
Chronic toxicity or long-term toxicity:
Special effect:.

Ecological data

Ecotoxicity:
Durability and degradability:
Bioaccumulation:
Mobility in soil:
Other adverse effects:

Waste disposal method

Waste disposal method:
1. Handle according to the current laws and regulations.
Consider sanitary burying or burning in a qualified solvent burning tower.

Delivery information

UN No:
UN transport Name:
Transportation hazard classification:
Packing category:
Marine pollutants (yes / no):
Special delivery methods and precautions:-

Other information

References: None
Prepared by: kaiyao Technology Co., Ltd. / No.18, Lane 646, Boai street, Zhubei City, Xinzhu County/ Tel:03-5551822 / Fax:03-5531338
Prepared by: Xie Jinquan
Prepared on: August 15, 2014
Note: the above information and data are for reference only. The user shall determine the feasibility of the application according to the application requirements.



Article Information Sheet

Copyright, 2015, 3M Company.

All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

This product is defined as an article based on the definition of an Article under China New Chemical Environmental Management Method MEP Decree No. 7, and does not require a Safety Data Sheet under Dangerous Chemical Safety Management Regulatory China State Council Decree No. 591 and China GB/T16483-2008 Safety Data Sheet for Chemical Products Content and Order of Sections. This article information sheet (AIS) is provided as a courtesy in response to a customer request. When used as recommended or under ordinary conditions, the product should not present a health and safety hazard. However, use or processing of the product not in accordance with the product's recommendations or not under ordinary conditions may affect the performance of the product and may present potential health and safety hazards.

Document Group:	07-7168-3	Version Number:	1.00
Issue Date:	2015/05/19	Supercedes Date:	Initial Issue

SECTION 1: Identification

1.1. Product identifier

3M™ 300LSE Adhesive Transfer Tapes: 8132LE, 8153LE, 9453FL, 9453LE, 9471FL, 9471LE, 9472FL, 9472LE, 9472LEU, 9653LE, 9671LE, 9672LE and 9698LE

Other means of identification

1.2. Recommended use and restrictions on use

Recommended use

Bonding & Attachment, Industrial use

1.3. Supplier's details

Company: 3M Company
Division: Industrial Adhesives and Tapes Division
ADDRESS: 3M Center, St. Paul, MN 55144, USA
Phone: 021-22105335
FAX: 021-22105036
E Mail: Tox.cn@mmm.com
Website: www.3m.com.cn

1.4. Emergency telephone number

021-22105335

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

This product is considered to be an article and is exempt from GHS classification.

3M™ 300LSE Adhesive Transfer Tapes: 8132LE, 8153LE, 9453FL, 9453LE, 9471FL, 9471LE, 9472FL, 9472LE, 9472LEU, 9653LE, 9671LE, 9672LE and 9698LE

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Paper or Film Liner	Mixture	Not Applicable
Acrylic Polymer Adhesive	Trade Secret	100

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

No need for first aid is anticipated.

Skin Contact:

No need for first aid is anticipated.

Eye Contact:

No need for first aid is anticipated.

If Swallowed:

No need for first aid is anticipated.

SECTION 5: Fire-fighting measures

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Not applicable.

6.2. Environmental precautions

Not applicable.

6.3. Methods and material for containment and cleaning up

Not applicable.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

SECTION 8: Exposure controls/personal protection

This product is considered to be an article which does not release or otherwise result in exposure to a hazardous chemical

under normal use conditions. No engineering controls or personal protective equipment (PPE) are necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Specific Physical Form:	Roll of Tape
Appearance/Odor	Translucent adhesive, slight acrylate odor, paper or fim quick release liner
Odor threshold	<i>Not Applicable</i>
pH	<i>Not Applicable</i>
Melting point/Freezing point	<i>No Data Available</i>
Boiling point/Initial boiling point/Boiling range	<i>Not Applicable</i>
Flash Point	<i>Not Applicable</i>
Evaporation rate	<i>Not Applicable</i>
Flammability (solid, gas)	Not Classified
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Vapor Pressure	<i>Not Applicable</i>
Vapor Density	<i>Not Applicable</i>
Density	<i>Not Applicable</i>
Relative Density	<i>Not Applicable</i>
Water solubility	Nil
Solubility- non-water	<i>Not Applicable</i>
Autoignition temperature	<i>Not Applicable</i>
Decomposition temperature	<i>Not Applicable</i>
Viscosity	<i>Not Applicable</i>
Volatile Organic Compounds	<i>Not Applicable</i>
Percent volatile	<i>Not Applicable</i>
VOC Less H2O & Exempt Solvents	<i>Not Applicable</i>

SECTION 10: Stability and reactivity

This material is considered to be non reactive under normal use conditions.

SECTION 11: Toxicological information

Inhalation:

This product may have a characteristic odor; however, no adverse health effects are anticipated.

Skin Contact:

No health effects are expected

Eye Contact:

No health effects are expected

Ingestion:

No health effects are expected

Additional Information:

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use

3M™ 300LSE Adhesive Transfer Tapes: 8132LE, 8153LE, 9453FL, 9453LE, 9471FL, 9471LE, 9472FL, 9472LE, 9472LEU, 9653LE, 9671LE, 9672LE and 9698LE

may affect the performance of the product and may present potential health and safety hazards.

SECTION 12: Ecological information

This article is expected to present a low environmental risk either because use and disposal are unlikely to result in a significant release of components to the environment or because those components that may be released are expected to have insignificant environmental impact.

SECTION 13: Disposal considerations

Dispose of contents/container in accordance with the local/regional/national/international regulations.

SECTION 14: Transport Information

Not hazardous for transportation.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

This product is an article and is exempted from Measures on Environmental Management of New Chemical Substances and from IECSC inventory listing requirements.

SECTION 16: Other information

References

United Nations 'Recommendations on the Transport of Dangerous Goods - Model Regulations '

United Nations 'Globally Harmonized System of Classification and Labelling of Chemicals (GHS)'.

Revision information:

Conversion to AIS.

DISCLAIMER: The information on this Article Information Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Information Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

3M People's Republic of China AISs are available at www.3m.com.cn

4. MSDS

江阴凯博通信科技有限公司
JIANGYIN KAIBO COMMUNICATION TECHNOLOGY CO., LTD.
Material Safety Data Sheet (物质安全资料表)

一、 物品与厂商资料

物品名称：同轴高频线

物品编号：KB113 系列

制造商或供货商名称、地址：江阴市凯博通信科技有限公司/江苏省江阴市澄江镇梅园大街 391 号

紧急联络电话/传真电话：0510-86070001/86070020

二、 成分辨识资料

纯物质：

中英文名称：聚全氟乙丙烯 FLUORINATED PROPYLENE ETHYLENE/镀银铜线 Cu-silver plated/镀锡线 TINNED COPPER

同义名称：FEP/SC/TX

危害物质成分(成分百分比)：无

危害物质：

危害物质	浓度或浓度范围 (单位: ppm)	
铅及其化合物 Pb	≤90	
镉及其化合物 Cd	≤75	
汞及其化合物 Hg	≤1000	
六价铬及化合物	≤1000	
卤素	氯 Cl ≤900	氯 Cl+溴 Br ≤1500
	溴 Br ≤900	
SVHC15 种物质	禁止使用	

三、 危害辨识数据

最 重 要 危 害 效 应	健康危害效应：在 260℃ 以上，可能会有吸入分解气体的危险。一定要安装排气装置。
	环境影响：要按废弃物处理及清扫法律法规处理，绝对不可燃烧。
	物理性及化学性危害：物理化学性能及其稳定，不易降解，不得擅自填埋。
	特殊危害：无
主要症状：对人的神经系统产生损害	
物品危害分类：大气和水源	

四、 急救措施

不同暴露途径之急救方法：
· 吸入：到空气流通处换气。
· 皮肤接触：无
· 眼睛接触：无
· 食入：不消化，排出。

最重要症状及危害效应：无
对急救人员之防护：对流换气
对医师之提示：吸氧

五、灭火措施

适用灭火剂：通用
灭火时可能遭遇之特殊危害：避免分解气体吸入
特殊灭火程序：无
消防人员之特殊防护设备：防毒面罩

六、泄漏处理方法

个人应注意事项：粉状树脂
环境注意事项：不可填埋
清理方法：要按废弃物处理及清扫法律法规处理，绝对不可燃烧。

七、安全处置与储存方法

处置：避免与高温和火源接触。
储存：通风干燥处。

八、暴露预防措施

工程控制：无
控制参数： · 八小时日时量平均容许浓度/短时间时量平均容许浓度/最高容许浓度： · 生物指标：
个人防护设备： · 呼吸防护：安装排气装置 · 手部防护：无 · 眼睛防护：无 · 皮肤及身体防护：无
卫生措施：应将衣服上附着的灰尘抖落，手脸洗净，不要让其附着于香烟上。

九、物理及化学性质

物质状态：固体	形状：透明颗粒
颜色：透明	气味：无
pH 值：7	沸点/沸点范围：/
分解温度：360℃	闪火点：/
自燃温度：/	爆炸界限：/
蒸气压：/	蒸气密度：/
密度：2.2	溶解度：/

十、安定性及反应性

安定性：很稳定
特殊状况下可能之危害反应：高温或燃烧分解气体对人体神经系统的损害。
应避免之状况：绝对不可燃烧。

应避免之物质：金属钠及其强酸的混合物。
危害分解物： 气体及粉尘。

十一、毒性资料

急毒性： /
局部效应： /
致敏感性： /
慢毒性或长期毒性： /
特殊效应： /

十二、生态资料

可能之环境影响/环境流布： 不降解, 禁填埋

十三、废弃处置方法

废弃处置方法： 按废弃物处理及清扫法律法规要求送专业资质处理公司处置。

十四、运送资料

国际运送规定： /
联合国编号： /
国内运送规定： 无
特殊运送方法及注意事项： 无

十五、法规资料

适用法规： 遵循欧盟 REACH 法规相关要求。

十六、其它数据

参考文献	杜邦产品说明/SONY 限用物资标准
制窗体位	名称： 江阴凯博通信科技有限公司
	地址/电话： 江阴市澄江街道梅园大街 391 号/0510-86070017
制表人	姓名(签章)： 庄科洁
制表日期	2011/11/3

MATERIAL SAFETY DATA SHEET (MSDS)

Issued: Dec 20 , 2007

Revised: Dec 20 , 2007

File No. 2302

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

CHEMICAL PRODUCT NAME : DURANEX XFR4840
NAME OF COMPANY : WinTech Polymer Ltd.
SECTION IN CHARGE : Quality Assurance Dept.
ADDRESS : 2-18-1 Konan, Minato-ku, Tokyo,108-8280 Japan
TELEPHONE NUMBER : 03-6711-8605
FACSIMILE NUMBER : 03-6711-8616

2. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE/PREPARATION : Preparation RATION
COMMON CHEMICAL NAME : Polybutyleneterephthalate
SYNONYMS : Polybutyleneterephthalate(PBT)
INGREDIENTS AND COMPOSITION : PBT \geq 80%, Phosphorus Flame retardant and others \leq 20%
CHEMICAL FORMULA : $\{ \text{C}_6\text{H}_4\text{C}_6\text{H}_4\text{O}_2 \text{ (C}_2\text{H}_4\text{O)}_n$
SERIAL No IN OFFICIAL GAZETTE : 7-1039 (base resin)
(Law Concerning Examination and Regulation of Manufacture, etc., of Chemical Substances)
CAS No : 2 4 9 6 8 - 1 2 - 5 (base resin)

3. HAZARDS IDENTIFICATION

PHYSICAL AND CHEMICAL HAZARDS : Not applicable
HUMAN HEALTH EFFECTS : Not applicable
ENVIRONMENTAL EFFECTS : Not applicable
PHYSICAL AND CHEMICAL HAZARDS : It is inflammable substance and combustible if an igniting source is existent. Neither dangerous reaction, fire nor explosion can be caused under normal conditions.
THE CLASSIFICATION : Not applicable

4. FIRST-AID MEASURES

INGESTION : Help to vomit as much as possible. If sick feeling continues, and ask a physician for advice.
INHALATION : When a gas generated from the molten polymer, especially fume generated during combustion or heat, has been inhaled, remove fresh air without delay and wait until the victim is recovered. If sick feeling continues, ask a physician for advice.
SKIN CONTACT : Cool the contacted skin with clean water without delay, if a contact with the polymer in a molten form. Do not force to remove the solid resin on the skin. If any burns are observed on the skin, ask a physician for advice.

EYE CONTACT : Cool and rinse the eye with clean water for at least 15 minutes when the eyes had contact with molten polymer. In case of wearing contact lenses,remove the lenses as soon as possible,and ask a physician for advice. When the eye had contact with the polymer in an ordinary solid form,rinse the eye with clean water without delay. If the discomfort persists,ask a physician for advice.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA : Water,form fire-extinguishing agent,powder fire-extinguishing agent,and carbon dioxide gas.

SPECIFIC METHODS : Extinguish the fire with water. A method of extinguishing an ordinary fire may be applied. Do not apply water directly to processing machines.

SPECIFIC HAZARDS : Incomplete combustion leads to generation of toxic gases such as carbon monoxide or tetrahydrofuran,in addition to carbonic acid gas and water.

SPECIAL EQUIPMENT FOR THE PROTECTION OF FIREFIGHTERS : In case the fire gained force,use a gas mask or other protective equipment.

6. ACCIDENTAL LEAKAGE MEASURES

PERSONAL PRECAUTIONS : When pellets were spilled on the road or floor,wipe them off with a besom or cleaner not to cause slipping.

ENVIRONMENTAL PRECAUTION : Handle the spillage in accordance with provisions given in the "Resin pellet spillage preventive manual",in order to prevent intakes by marine animals and birds.

7. HANDLING AND STORAGE

HANDLING : This resin in a pellet form will neither ignite nor explode at room temperatures.

HANDLING 2 : For molding work,effective means for local exhaust are required to discharge gases generated by melt processing.

HANDLING 3 : Avoid inhaling of gases generated in moulding work. Do not directly touch resin of high temperature.

HANDLING 4 : Avoid retaining hot resin in the processing machines for many hours.

HANDLING 5 : This pellets spilled on the floor are likely to cause slipping. Remove such spillage at any times.

STORAGE : Keep the substance away from any fire or heat sources for the sake of safe storage.

RECOMMENDED PACKAGING MATERIALS : No information.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

CONTROL CONCENTRATION : None at present

PERMISSIBLE CONCENTRATION : OSHA PEL/1985
Max. permissible concentration of inactive powder 15mg/m³
- ditto - (Aspiration) 5 mg/m³
ACGIH TLV/1992 1993
Exposure limit of the powder TWA 10 mg/m³

ENGINEERING MEASURE : When handling dust: Use totally enclosed containers resisting dust explosion.
When heat melted in molding: Effective local ventilation must be provided.

PERSONAL PROTECTIVE EQUIPMENT	:	
RESPIRATORY PROTECTION	:	Wear a dust-proof mask.
EYE PROTECTION	:	Wear protective glasses or goggles.
HAND PROTECTION	:	Wear heat-resisting gloves against burns, when handling molten polymer.
SKIN & BODY PROTECTION	:	Wear long sleeve clothes against burns, when handling molten polymer.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE etc.	:	Pellet
BOILING POINT	:	Not applicable
VAPOUR PRESSURE	:	Not applicable
VOLATILITY	:	Not applicable
SUBLIMATION	:	None
MELTING POINT	:	228°C
DENSITY	:	1.32g/cm ³
SOLUBILITY	:	Insoluble in water
FLASH POINT	:	300°C or higher
IGNITION POINT	:	300°C or higher
EXPLOSION PROPERTY	:	Not applicable
INFLAMMABILITY	:	None
REACTIVITY WITH WATER	:	None
OXIDIZABILITY	:	None
SELF-REACTIVITY	:	None
DUST EXPLOSIVENESS	:	Upper explosion limit : Not applicable. Lower explosion limit : 35g/m ³

10. STABILITY AND REACTIVITY

STABILITY AND REACTIVITY	:	Stable for normal storage or handling.
--------------------------	---	--

11. TOXICOLOGICAL INFORMATION

SKIN CORROSIVE PROPERTIES	:	No finding.
SENSITIZING & IRRITANT EFFECTS	:	Gas generated in drying or melting is irritating eyes and skins.
ACUTE TOXICITY (INCLUDING LD50)	:	No finding.
SUBACUTE TOXICITY	:	No finding.
CHRONIC TOXICITY	:	No finding.

CARCINOGENECITY : No finding.

MUTAGENECITY(Mi : No finding.
cro
organisms,chromoso
mal aberration)

REPRODUCTIVE : No finding.
TOXICITY

TERATOGENICITY : No finding.

OTHERS(Including : No finding in this report means that there will be no hazard in
generation of general,but no proving data available at the time of reporting.
hazardous gases by
reaction with
water,for ezample)

OTHER CAUTIONS : With regard to dust,the maximum permissible concentration and limits
are fixed by OSHA and ACGIH.

12. ECOLOGICAL INFORMATION

BIODEGRADABILITY : No finding.

BIOACCUMULATION : No finding.

FISH TOXICITY : No finding.

13. DISPOSAL CONSIDERATION

WASTE FROM : This is designated as waste plastics among industrial wastes by the
RESIDUES Wastes Disposal Law. Disposal waste pellets through licensed wastes
handlers or local autonomous bodies if they are handling wastes
disposal.

WASTE FROM : When disposed by incineration,use the well controlled incinerators in
RESIDUES 2 accordance with the Wastes Disposal Law,Air Pollution Control Law and
Water Pollution Prevention Law.

14. TRANSPORT CONSIDERATION

UN : Not applicable
CLASSIFICATION
NUMBER

OTHER CAUSIONS : Handle with care so as not to give damages to containers or not to be
subjected to wetting.

OTHER CAUSIONS : Secure the containers firmly so as not to cause collapsing.
2

15. REGULATORY INFORMATION

WASTE DISPOSAL : Waste plastics among industrial wastes.
LAW

16. OTHER INFORMATION

HANDLING OF THE : This MSDS is the English version translated from the Japanese MSDS
DETAILS GIVEN which is prepared for domestic use.
ABOVE Details given above are based on references, information and data
available at this moment, but no warranty can be made on exactness of
these details. They are also prepared on the assumption that the
product will be handled in a normal way. For special handling, adequate
safety and environmental measures should be taken in respect to its
applications. Our products are not specifically intended for implants for
medical and dental applications, and therefore they are not
recommended for such applications.
"No finding" in this report means that there will be no hazard in general,
but no proving data is available at the time of reporting.

MATERIAL SAFETY DATA SHEET

MSDS FILE No. (KURAMI WORKS) : 05-1225

(based on Form OSHA-174)

IDENTITY (AS Used on Label and List)

Product Class : Phosphor Bronze Strip
 Trade Name : JIS H3130 C5210R (Equivalent to ASTM B103 C52100)
 CAS No. : Copper: 7440-50-8, Tin: 7440-31-5, Phosphor: 7723-14-0
 Chemical Composition

	Content(wt-%)	CAS No.
Tin(Sn)	7.0~9.0	7440-31-5
Phosphor(P)	0.03~0.35	7723-14-0
Copper(Cu)	Balance	7440-50-8
Sn+P+Cu	99.7 \leq	-

Section I

Manufacturer's Name NIKKO METAL MANUFACTURING CO., LTD. KURAMI WORKS	Date Prepared May 24th, 2005
Address 3 Kurami Samukawa-cho Kouza-gun Kanagawa prefecture 253-0101 JAPAN	Signature of Person in Charge <i>Chihiro Izumi</i> IZUMI, Chihiro Senior Technical Supervisor, Quality Assurance
Telephone Number for Information (Quality Assurance) +81-467-75-7285	Signature of Person Responsible <i>Hiroaki Watanabe</i>
Facsimile Number for Information (Quality Assurance) +81-467-74-6971	WATANABE, Hiroaki Manager, Quality Assurance Section

Section II Hazardous Ingredients / Identity Information

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

Nothing for ordinary service condition

Section III Physical / Chemical Characteristics

Boiling Point	2630 °C for Copper 2275 °C for Tin	Specific Gravity (H2O = 1)	8.80
Vapor Pressure (mmHg)	N/A	Melting Point	1025 deg. centi. for C5210 Phosphor Bronze
Vapor Density (Air = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	N/A		
Appearance and Odor	Brown - Red (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

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

Material Safety Data Sheet

1. Manufacturer

- Company HARADA Metal Industry Co., Ltd.
- Address 10-18 Sasamekitamati, Toda, Saitama 335-0033, Japan
TEL 048-422-1588
FAX 048-449-6303
- Counter The domestic business department business primary and second section
TEL 048-441-5115
FAX 048-444-9104
The domestic business department OSAKA service office
TEL 06-531-8094
FAX 06-531-8096
The domestic business department NAGOYA service office
TEL 052-821-9778
FAX 052-822-7500
The overseas business department export section
TEL 048-441-5115
FAX 048-444-9104
- Urgent place to contact
The quality assurance department
TEL 048-422-1588
FAX 048-449-6303

2. Products

- Phosphor bronze plates and strips for springs
- Phosphor bronze plates and strips

3. Specification of the material

- The division of mixture or single product : Single product
- The chemical name : Copper alloy
- Chemical composition and content rate(wt.%)

Element	Percent					CAS No.
	C5210	C5212	C5191	C5102	C5111	
Copper	rem.	rem.	rem.	rem.	rem.	7440-50-8
Tin	7.0~9.0	7.0~9.0	5.5~7.0	4.5~5.5	3.5~4.5	7440-31-5
Phosphorus	0.03~0.35	0.03~0.35	0.03~0.35	0.03~0.35	0.03~0.35	7723-14-0
Lead	0.05 max	0.05 max	0.05 max	0.05 max	0.05 max	7439-92-1
Iron	0.1 max	0.1 max	0.1 max	0.1 max	0.1 max	7439-89-6
Zinc	0.2 max	0.2 max	0.2 max	0.2 max	0.2 max	7440-66-6

4. Classification of harmfulness

- The name of classification : Not classified into the dangerous harmfulness material.
- The danger : No knowledge
- The harmfulness : No knowledge
- The effect for the environment : No knowledge

5. First aid

- Eyes : Flush the water. Consult the doctor, when the simulation of the eye continues.
- Skin : Flush the water.
- Inhalation : Consult the doctor, when it was large inhaled.

6. The treatment in the fire

- Nonflammable.

7. Leakage

- Not applied (because of solid)

8. Attention in handling and storage

- Stored at the ordinary—temperature and usual humidity.
- Prohibition of the rapid temperature and humidity change.

9. Treatment on the exposure prevention

- Standard control concentration : Not regulated.
- Allowable temperature : Not regulated.
- Facility countermeasure : The whole ventilation is desirable.
- Protector : For lung ,the wear of protection mask is desirable for the power handling.
For hand ,the wear of protective glove is desirable.
For eyes ,the wear of safety goggles is desirable for the power handling.
For body , the wear of protective clothing is desirable.

10. Physical and chemical characteristic

- Appearance and smell : The solid with the metallic luster. Odoless.
- Boiling point : The indistinctness.
- Solubility : Dissolves in the inorganic acid.

	C5210	C5212	C5191	C5102	C5111
Specific gravity	8.82	8.82	8.85	8.88	8.90
Melting point	1020°C	1020°C	1045°C	1050°C	1060°C

11. Information for danger

- Fire point : The indistinctness.
- Stability : Show the stability at room temperature and in the air.
- The situation to be avoided : —

12. Information for harmfulness

- The powder stimulates eyes , skin and bronchi.
- Produce the ulcer and the hepatic disorder rarely.

13. Information for environment

- No knowledge.

14. Attention for scrapping

- Possible to deal with ,as an industrial waste.

15. Attention for transportation

- No damage transportation is desirable.

16. Applying act

- —

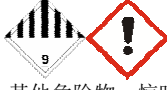
物质安全数据(MSDS)

一、物品与厂商资料

页数: 1/2

物品名称: FPC 天线电镀镍.电镀镍金产品 (Flexible Printed Circuit)
其他名称: FPC 镀镍金层
建议用途及限制使用: 通讯类产品
制造商或供货商名称: 东莞晓鸽电子科技有限公司
制造商或供货商地址: 东莞市虎门镇沙角社区凤凰中路三兴路口旁一.二楼
紧急联络电话/传真电话:

二、危害辨识数据

物品危害分类: 其他危险物、急毒性物质第 4 级 (吞食、皮肤、吸入)
标示内容: 
象 征 符 号: 其他危险物、惊叹号
警 示 语: 警告
危害警告讯息: 吞食有害、吸入有害
危害防范措施: 置容器于通风良好的地方; 避免皮肤、眼睛接触; 如遇意外或觉得不适, 立即洽询医疗
其他危害: -

三、成分辨识资料

混合物
中英文名称: 镍 (NICKEL) CAS NO.7440-02-0 百分比 98.95%
金 (Gold) CAS NO.7440-57-5 百分比 1%
光亮剂 CAS NO.6155-57-3 百分比 0.05%
同义名称: 金手指镍金层
化学文摘社登记号码(CASE No):
危害物质成分(成分百分比):

四、急救措施

不同暴露途径之急救方法:
吸 入: -会刺激呼吸道
皮肤接触: 以肥皂及清水清洗接触部位
眼睛接触: 大量水冲洗 15 分钟以上, 并寻求医疗协助
食 入: 喝大量的水, 并寻求医疗协助
最重要症状及危害效应: 具刺激性。
对急救人员之防护: 应穿着 C 级防护装备在安全区实施急救
对医师之提示: 患者吸入时, 考虑给予氧气。吞食时, 考虑洗胃。

五、灭火措施

适用灭火剂:
二氧化碳、化学干粉、水雾、酒精泡沫。
灭火时可能遭遇之特殊危害:
加热至干, 盐将分解产生一氧化碳及二氧化碳。
特殊灭火程序:
1.喷水雾冷却暴露于火场中的容器。2.喷水雾冲开外泄物, 以免暴露。
消防人员之特殊防护装备:
配戴全身式化学防护服及空气呼吸器(必要时外加闪火铝质批覆外套)

六、物理及化学性质

页数: 2/2

	物质状态	颜色	气味	比重	熔点	沸点
NI	固态	银白色	无味	8.9	1453℃	2732℃
AU	固态	黄色	无味	19.3	1064℃	2807℃
光亮剂	液态	浅棕色	无味	1.1	NA	NA

七、安全处置与储存方法

处置:
避免接触眼睛皮肤及衣物, 穿戴个人防护用具, 不要吸入雾气
储存:
储存在凉爽干燥的地方

八、废弃物处置方法

废弃处置方法:
1.依现行法规处理。
2.依照厂家的处理先处理废弃物待处理的废弃物
3.依照国家地方政府有关工业废水排放标准规定执行

九、泄漏处理方法

个人应注意事项: 穿戴适当的个人防护装备。
环境注意事项: 对泄漏区通风换气。
清理方法: 以大量清水稀释, 并清洗排至水沟。

十、暴露预防措施

工程控制：1.局部排气装置、2.整体换气装置、3.通风系统需用抗蚀材质，并与其他排气系统分开。			
控制参数			
八小时时时量平均容许浓度 TWA	短时间时量平均容许浓度 STEL	最高容许浓度 CEILING	生物指标 BEIs
1mg/m3	2mg/m3	-	-
个人防护设备： 呼吸防护：- 手部防护：防渗手套，材质以天然橡胶、丁基橡胶、聚乙烯醇为佳。 眼睛防护：化学安全护目镜、面罩。 皮肤及身体防护：上述橡胶材质之防渗衣服、工作鞋			
卫生措施： 1.工作后尽速脱掉污染之衣物，洗净后才可再穿戴或丢弃，且须告知洗衣人员污染物之危害性 2.工作场所严禁抽烟或饮食。3.处理此物后，需彻底洗手。4.维持作业场所清洁			

十一、安定性及反应性

安定性： 正常状态下安定，若加热至熔点，可能发生升华及分解。
特殊状态下可能之危害反应： 1.碱：可能发生剧烈反应，产生热及压力。2.氧化剂(如亚氯酸钠、次氯酸钠)：可能产生剧烈或爆炸性反应。3.银：可能行程爆炸性草酸银。4.碱金属(如钠或钾)：可能剧烈反应生成易燃性的氢气。5.铁及铁化物(如氧化铁)：可能迅速反应行成草酸铁。6.酰基氯：可能剧烈反应，生成毒性熏烟。7.受热
应避免之状况：受热
应避免之物质： 1.碱。2.氧化剂 6.酸
危害分解物：无

十二、毒性资料

暴露途径：-
症状：-
急毒性：无 吸入：无 皮肤：无具刺激性 眼睛：无具刺激性 食入：无于口中及喉中产生灼热感、腹部疼痛、反胃、恶心、呕吐
慢毒性或长期毒性： 1.可能造成肾结石，排尿困难及疼痛。2.可能造成体重下降，上呼吸道慢性发炎。3.会造成皮肤局部疼痛、溃烂或坏死以及指甲变色。

十三、生态资料

生物毒性：LC50(鱼类)：- EC50(水生无脊椎动物)：- 生物浓缩系数：-
持久性及降解性：-
生物蓄积性：在体内不太会分解，大部分会以草酸或草酸钙盐形式由尿中排出，而此不溶盐会在体内蓄积如石头，造成肾及尿道结石。
土壤中之流动性：当释放至土壤中，可能会渗入地下水及生物分解。
其他不良效应：-

十四、运送资料

联合国编号：-UN1760CORROSIVE LIQUID
联合国运输名称：-
运输危害分类：第9类其他危险物质
包装类别：-
海洋污染物(是/否)：否
特殊运送方法及注意事项：-

十五、法规资料

适用法规： 1.劳工安全卫生设施规则。 2.危险物及有害物通识规则。 3.劳工作业环境空气中有害物容许浓度标准。 4.道路交通安全规则。 5.事业废弃物清除处理方法及设施标准。

十六、其他数据

参考文献	MSDS 数据库
制表者单位	名称：东莞晓鸽电子科技有限公司 地址/电话：东莞市虎门镇沙角社区凤凰中路三兴路口旁一、二楼
制表人	职称：品管员 姓名(签章)：黄焕文
制表日期	2020-12-01
备注	上述数据中符号“-”代表目前尚无相关数据，而符号“/”代表此字段对该物质并不适用

物質安全資料表[Material Safety Date Sheet]

一、物品資料(Section 1:Product Identification)

品名 (Material Name):聚氨酯泡棉及制品

型號(Material Type):

二、成分辨識資料(Product Identification)

純物質(Single Product):

中英文名稱(Chinese and English Name):EVA 防震泡棉黑色

同義名稱(Synonym Name): 防震泡棉黑色

化學文摘社登記號碼(CAS No.): 9009-54-5

危害物質成分(ROHS): 无

混合物(Mingle Product):

化學性質(Properties):

化學品名稱(Name):	CAS NO	% / 依重量(depend on weight)	危害物质分类及图标 (Endanger matter sort and chart mark)
环氧丙烷与环氧乙烷聚合物 Epoxypropane and oxirane polymer	9003-11-6	45	无
甲苯二异氰酸酯 Methyl benzene two different cyanic acid esters	584-84-9	40	无
三亚乙基二胺 Three second ethyls two Ans	280-57-9	10	无
聚硅氧烷 Gather Huo oxidizing alkane	63148-62-9	5	无

三、危害辨識資料(Jeopardize Identification)

健康危害效應[healthy Jeopardize Effect]:

1. 對健康之危害(急性及慢性) healthy harm(Acute or chronic): 有(yes) 無(no)
2. 暴露於本物質時會產生的現象與病徵(The exposure is at this matter will generate of phenomemon and disease): 有(yes) 無(no)
3. 因暴露於本物質所可能引起的一般病理情況(The generally pathologic condition might spark at this matter because of exposing): 有 (yes) 無(no)

主要症狀(Symptom): 无

四、急救措施(Emergency Treatment)

不同暴露途徑之急救方法:正常狀況下无吸入危險、正常狀況下人体接触无需处理、正常狀況下无吞食危險
(The dissimilarity exposes the first aid method of path: The normal condition down has no suction risk\ The normal condition next human body gets in touch with none to need a transaction\ The normal condition down has never swallowed risk)

五、消防措施(Fire fight measure)

適用滅火劑: 水、干粉、二氧化碳及泡沫滅火劑

(The appliance extinguishes fire an agent:water\ Dry powder\Carbon dioxide\The foam extinguishes fire an agent)

特殊滅火程式: 使所有非急救人員撤離火區并使用適當的滅火設施, 由上風處滅火。

(special to extinguish fire program: Make all non- first-aid personnels withdraw fire zone and Use fairness of extinguish fire facility , the last breeze section extinguishes fire)

消防人員之特殊防護設備: 穿著完善的保護裝并配戴自式呼吸器。

The fire fighter is special to defend an equipment: Be dressed in perfect safeguard clothing and Wear from the type breather

六、洩漏處理方法(Transpire Manage Method)

不存在洩露。Is nonexistent to reveal

七、安全處置與儲存方法(Safety and Lay Method)

處置(Lay Up): 泡體堆疊及廢料回收使用人力或相應之機械設備。(Steep body stack and The waste recall uses manpower or Machinery equipment)

儲存(lay):必須存儲于有圍堤、保持清潔、乾燥、空氣流通、陰涼、不受日晒, 需裝置洒水裝置; 嚴禁烟火和嚴禁其它熱源;確保遵守關於物料處理以及儲存設施的地方法規。

(Have to be stored to have already rounded dike. Keep clean.dry. The air circulates,cool, Be free from insolation,and Need to equip sprinkler: Strictly forbid firework and otherHeat source: Ensure to obey concerning the supplies handle and store facility of place statue)

八、暴露預防措施(Expose Prevent Recurrence)

工程控制: 通風。

The engineering controls: Ventilate

個人防護設備: 除非暴露于泡綿粉塵下,護目鏡、手套和口罩是必要的。

Personal safeguard equipment: Unless exposure in steep Mian dust down, the goggle, glove and respirator are necessary.

衛生措施: 干淨、整潔。

Health measure: clean and neat

九、物理及化學性質(Physics and Properties)

物理狀態: 任何顏色之多孔性固體形狀。

Physical status: The porosity solid of any color shape

鉛化合物(Lead compound): <200PPM

分解溫度: 不會分解。

Resolve temperature: Can't resolve

鎘化合物(Cadimium compound): <30PPM

汽化比例: 不會氣化

Vaporize a ratio: Can't gasify

汞化合物(Mercury compound): <100PPM

溶解度: 不溶于水。

Solubility: Not Be dissolved to water

鉻化合物: <200PPM

十、安全性及反應性(Security and Reaction)

安全性:一般狀況下穩定。

Stability: The general condition is down stable

應避免之狀況:避免高溫、明火及強氧化劑、強酸。

Should avoid condition: Avoid heat, clear fire and strong oxideizing agent, strong acis

十一、毒性資料(Toxicity Information)

有毒性(yes) 無毒性(no)