Material Safety Data **Sheet**

Product name : Ag/Ni plated lead frame Date prepared : Mar. 27rd 2007

Product Identification 1

Ag/Ni plated lead frame
Metal lead frame
POONGSAN SANJIA MICROTEC CO., LTD
SHICHENG ROAD TONGLING CITY ANHUI PROVINCE, CHINA
Phone: (852) 562-2627697
N P S

2-Composition / Information of ingredients (% by weight)

Constituent (%)		C194		PMC90		C7025	
Components	CAS.NO.	MIN	MAX	MIN	MAX	MIN	MAX
Cu	7440-50-8	R		R		R	
Fe	7439-89-6	2.1000	2.6000	0.0500	0.1500		
Si	7440-21-3					0.2500	1.2000
Mn	7439-96-5						
Ni	7440-02-0			3.1000	5.6000	2.2000	4.2000
P	7723-14-0	0.0150	0.1500	0.0250	0.0400		
Zn	7440-66-6	0.0500	0.2000				
Mg	7439-95-4					0.0500	0.3000
Pb	7439-92-1	-	0.0300				
Ag	7440-22-4	0.0055	0.0057	0.0098	0.0099	0.0088	0.0089

3. Physical properties

Freezing point	Not applicable
Vapor pressure(mmHg)	Not applicable
Melting point / Boiling point	Not applicable
Solubility in water	Insoluble in water
Vapor density (Air=1)	Not applicable
Evaporation rate	Not applicable
Appearance	Solid

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Odor

4. Fire, explosion, stability and reactivity information

Flash point	None
Flammable limits	None(LFL: not applicable, UFL: not applicable)
Extinguishing media	Lead frame is noncombustible. Use extinguishing media appropriate to the surrounding fire.
Chemical stability	Lead frame is a stable material.
(condition to avoid)	
Incompatibility	Strong acid (hydrogen gas envolved contact)
(material to avoid)	

5. Health hazard information

Inhalation	Not applicable
Ingestion	Not applicable
Skin	Skin contact with this material may cause, in some sensitive individuals, an allergic
	response if element such as copper and nickel are present.
Eye	Particular metal (dust) may be dangerous to the eye and surrounding tissue.
Toxicity	Three is no information on the toxicity of this material. Under normal handing and
	use the solid form of this material there are few health hazards.

6. Emergency and first aid procedures

Inhalation	Breathing difficulty caused by inhalation of dust requires remove to fresh air. If
	breathing has stopped, perform article respiration an obtainment of medical assistance
	at once.
Ingestion	Swallowing metal power or dust can be treated by having the affected person
	swallow large quantities of water and attempting to induce vomiting if conscious.
	Obtain medical assistance at once.
Skin	Skin cuts and abrasions can be treated by standard first aid. Skin contamination with
	dust or powder can be removed by washing with soap and water. If irritation persists,

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	obtain medical assistance at once.
Eye	Dust or powder should be flushed from the eyes with copious amounts of clean water.
	If irritation persists obtain medical assistance. Contact lenses should not be worn if
	working with metal dusts and powders.

7. Exposure control /Personal protection

Ventilation	Good general ventilation should be sufficient for most condition.
Respiratory protection	For most conditions, no respiratory protection should be needed; However, in dusty
	atmospheres, wear a NIOSH approved respirator to protect from dust.
Eye protection	Wear safety glasses when risk of eye injury is present, for example, metal powder
	handing.
Skin protection	Wear clean body covering clothing. Wear gloves to prevent metal cuts and skin
	abrasions.

8. Handing and storage

Handling	Good housekeeping in order to prevent the accumulation of dust.
Storage	Storage in original vacuum sealed packing.
	Storage condition: 19 to 25 °C and relative humidity $\leq 60\%$.

9. Environmental protection information

Waste disposal	Prior to disposal consider if material has recovery value. Dispose of material in
method	compliance with governmental regulations.
Environmental	In solid from this material poses on special environmental problems.
hazards	

10. Transportation information

Transportation	and	Not a hazardous material for shipping.
hazardous materials		

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Additional Information

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