## MATERIAL SAFETY DATA SHEET

Issue Date: 30-July-2008 Identification Number: MSDS # 001 Product: Supplier: HBZ-U,HBZ-K,HBZ-MU Wire(60/40Brass) Hitachi Cable Fine Tech, Ltd. (Brass wire) 4-10-1 Kawajiri-cho, Hitachi-shi, Ibaraki-ken 319-1414 Phone: 0294-42-5907 Fax: 0294-43-6169 SECTION 1 - MATERIAL IDENTIFICATION AND USE Material Name: Brass wire Chemical Name: Chemical Formula: DOT Identification Number: **NOT APPLICABLE** Copper and Zinc NOT APPLICABLE SECTION 2 - HAZARDOUS INGREDIENTS OF MATERIAL **ELEMENT** RISK **SYMBOLE** VLE-VME CAS NO. % 59.0 - 62.0 N.A. 7440-50-8 N.A. Copper C u N.A. Zinc Residue N.A. 7440-66-6 Ζn SECTION 3 - PHYSICAL DATA FOR MATERIAL At Normal Condition: Appearance and Odor: **SOLID** COLOR: Bronze; NO ODOR **Boiling Point** Melting Point Specific Gravity Vapor Density: N.A. 8.39  $(H_20=1)$ Cu 2595° C 1083°C Vapor Pressure: N.A. Solubility in Water Nil Zn 906° C 420°C (% by weight) SECTION 4 - PERSONAL PROTECTIVE EQUIPMENT Appropriate personal protective equipment is required when melting, casting, machining, forging, cutting, or otherwise processing. The nature of the processing activity will determine what form of equipment is necessary; i.e., glasses, respirator, protective clothing, and ear protection. SECTION 5 - EMERGENCY MEDICAL PROCEDURES For Skin Contact: Remove particles by thoroughly washing with soap and water. For Eye Contact: Flush with water for at least 15 minutes. Get medical attention if irritation persists. For Inhalation: Remove from exposure. Get medical attention if experiencing breathing difficulty. SECTION 6 - HEALTH/SAFETY INFORMATION [HEALTH] INHALATION Not likely INGESTION Not likely SKIN Lubricants are listed in the International Agency for Research on Cancer Monograph on Mineral Oils. It's presence in this product is not expected to present a carcinogenic risk due to the low concentration in which it is present. **EYES** May irritate eyes when welding or cutting.

Threshold Limit Value: See	section 2, HAZARDOUS INGI	REDIENT	'S OF M.	ATERIAL			
[FIRE AND EXPLOSION]							
Flash Point: Not Flammable	Auto Ignition Temperature(°C):	Flammable Limits in Air: Lower NA %			Extinguishing Media: Dry power or sand		
	NA NA	Up	per NA	<b>\</b> %			
Unusual Fire and Explosion Hazards:  Damp material dust may spontaneously heat with liberation of hydrogen to form explosive air mixtures. See additional information.		of	Extinguishing Media not to be used:  Do not use water, halogen, or dust fires.				
[REACTIVITY]		•					
Stability:	Incompatibility (Materials to Avoid):						
STABLE	ANHYDROUS BROMINE						
Conditions to Avoid:							
See Fire and Explosion Section and ADDITIONAL INFORMATION.							
SECTION 7 – ADDITIONAL INFORMATION							

- 1. Acids and bases in contact with brass surface may generate explosive mixtures with hydrogen.
- 2. Finely divided brass may form explosive mixture in air. It will also form explosive mixtures in air in the presence of bromates, iodates, or ammonium nitrate.
- 3. When re-melting brass scrap, entrapped moisture or the presence of strong oxidizers such as ammonium nitrate could cause an explosion. This applies to the collection of moisture in sow cavities as well. Moisture must be driven off prior to re-melting.
- 4. Do not touch cast brass metal or heated product without knowing the metal temperature. If metal is hot and is touched, burns can result.

## MATERIAL SAFETY DATA SHEET

			Issue Date: 30-July-2008					
			Identification Nur	Identification Number: MSDS # 002				
Product:			Supplier:					
A	BZ Wire(65/35Bra	ss)	Hitachi Cable Fine Tech, Ltd.					
	(Brass wire)		4-10-1 Kawajiri-cho, Hitachi-shi, Ibaraki-ken 319-1414					
			Phone: 0294-42-5907 Fax: 0294-43-6169			-6169		
SECTION 1 – MATERIAL IDENTIFICATION AND USE								
Material Name: B	Brass wire							
	Chemical Name: Chemical F			DOT Identification Number:				
NOT APP	LICABLE	Copper	and Zinc	NOT APPLICABLE		LICABLE		
	SECTION 2	HAZARDOUS INC	CDEDIENTS OF M	ATEDIA	ī			
ELEMENT	%	RISK	SYMBOLE	CAS NO.		VLE-VME		
Copper	63.0 - 67.0	N.A.	Cu		)-50-8	N.A.		
Zinc	Residue	N.A.	Zn		)-66-6	N.A.		
2.11.0	Residue	11.21.	L n	7-1-0	,-00-0			
		·	1					
	SECTIO	N 3 – PHYSICAL D	DATA FOR MATE	RIAL				
At Normal Condit	ion:		Appearance and C	dor:		·		
SOLID		COLOR: Bronze; NO ODOR						
Boiling Poin	t M.	elting Point	Specific Gravity 8.47 Vapor Density: N.A.					
Cu 2595° C		1083°C	(H <sub>2</sub> 0=1)	Vapor Pressure: N				
Zn 907° C		420°C	Solubility in Water	/ in Water Nil		055410.11.21.		
20 707 0			(% by weight)	N CENTE		<u> </u>		
		4 – PERSONAL PR						
Appropriate person otherwise processi	nal protective equip	ment is required who	en melting, casting,	machinin	g, forging,	cutting, or		
		vill determine what t	form of aquinment i	e nacacent	wia alas	see recriretor		
The nature of the processing activity will determine what form of equipment is necessary; i.e., glasses, respirator, protective clothing, and ear protection.								
F		- EMERGENCY !	MEDICAL PROCE	DURES				
For Skin Contact:	Remove particles by							
For Eve Contact: I	Flush with water for	at least 15 minutes	g with soap and war Get medical attenti	ion if irrits	ation nersis	te		
For Inhalation: Re	move from exposure	e. Get medical atten	tion if experiencing	breathing	difficulty.			
		N 6 – HEALTH/SA			,, .			
[HEALTH]	SECTIO	NO-REALIR/SA	FETT INFORMAT	ION				
	Not likely							
	Not likely Not likely							
	Lubricants are listed in	the International Age	ncy for Research on C	Cancer Mon	ograph on N	Aineral Oils. It's		
I	presence in this produc							
	it is present.							
EYES 1	May irritate eyes when	welding or cutting.						

Threshold Limit Value: See se	ection 2, HAZARDOUS ING	REDIEN'	<b>IS OF MATERIAL</b>				
[FIRE AND EXPLOSION]							
Flash Point: Not Flammable	Auto Ignition Temperature(°C): NA	Flammable Limits in Air: Lower NA % Upper NA %		Extinguishing Media: Dry power or sand			
Unusual Fire and Explosion Hazards:  Damp material dust may spontaneously heat with liberation of hydrogen to form explosive air mixtures. See additional information.		of	Extinguishing Media not to be used:  Do not use water, halogen, or dust fires.				
[REACTIVITY]							
Stability:	Incompatibility (Materials to Avoid):						
STABLE	ANHYDROUS BROMINE						
Conditions to Avoid:	, <del>,,,,</del>						
See Fire and Explosion Section and ADDITIONAL INFORMATION.							
SECTION 7 – ADDITIONAL INFORMATION							

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