P.001/005

Material Safety Data Sheet

To the Purchasian This MSDS contains imperiant smitchmental hastin and tracelogy information for your employees who have ordered this Discluct. Please be sure into information to given to them if you receil this product, a copy of the MSDS should be given to the Burds.

Issue Date

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Section and Author	SECTION S	250		2000

4/4/94

Manufactured For:

The Easthill Group Dba/The Eastwood Company 263 Shoemaker Road

Pottstown, PA 19464 USA & Canada: 800-345-1178 Outside USA: 610-323-2200

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ods Name &	Syeas/mai	SILVER SOLDER	FLUX NO. 601	Channell	The state of the s
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remia .					
	șee i	The state of the s	A 1474/7		
ection	12-HAZ4	RDOUS INGREDII	ENTS	TW_YES	OSHA PEL (Uniu) ACGIH TLY (Uni
incipal Hess	anders Compo	reod's) (chemical & common s		,	2.5 MG/N3
POTASS	IUM FLUO	Rohydroborate	14075-53-7	30-45	
BULY SG.	IUM TETR	ARORATE	1332-77-0	15-25	TO MC/K3
BORIC	_		10043~35-3	15-30	10 MG/M3
Commence of the Commence of th	Andrew Control of the			7-15	2.5MG/M3
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SECTION 5 - PHYSICAL HAZARDS	_
Stability Unatable Conditions Stable & to Avoid EXCESS HEAT	
Incompatability (Motorcole W. Aveid) GLASS OR PORCELAIN	
Hazardous Decomposition Products B.O. FIMES KBF.	
Manardous May Servi Conditions 4 Polymerias den Will Not Comer & Avoid NONE	
SECTION 6 - HEALTH HAZARDS	Misson de la
Primary Routed of Inhulusion? Shin? Ingestion? Gnity to Book: YES YES YES	
Symptoms of Exposure Overexposure SALIVATION, COUGHING, CHOKING & CHILLS	
- 2 Chronic	TIFF
Medical Conditions Governation of the Lungs, Kidneys or Liver will be accravated.	INTS
ilealth itaerida	·
THOSE ASSOCIATED WITH FLUORIDES  Chemical Listed as Carcineges National Texticology Yes O I.A.R.C. Yes O OSHA Yes O Yestertial Carcineges No No NX Monographs No XX	Miles de la constante de la co
OSHA Permissible ACGIII Threshold Other Exposure	Sandain paid
Energebry and	•
1. Inhabition REMOVE FROM CONTANINATED AREA	<u> </u>
WASH THOROUGHLY WITH WATER AND CALL A PHYSICIAN	
WASH THOROUGHLY WITH WATER	<u></u>
JRINK WATER OR MILK AND CALL A PHYSICIAN	<u> January and a samulation of the samulation of </u>
SECTION 7 - CONTROL MEASURES	
Restrictory Protection	
Specify Types NIOSH APPROVED RESPIRATOR IN ABSENCE OF PROPER VENTILATION  Ventilation Level Mechanical Special Other	
TO REMOVE FUMES Estated YES IGNORAL YES NA NA	,
Other Protective Protective	
Clothing or Equipment RUBBER APRON	•
SECTION 8 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES Precautions to be Taken	, <u>'</u>
in Handling and Storage DO NOT STORE IN GLASS OR PORCELAIN CONTAINERS. AVOID CONTACT WIT	Ħ
EYES, SKIN AND CLOTHING, WASH THOROUGHLY AFTER HANDLING.	•
World Hygienic WASH SKIN AND CLOTHING WELL ESPECIALLY BEFORE EATING	, ,
Cities Presentations KEEF CONTAINERS AWAY FROM PACESSIVE HEAT	* * *
Stape to be l'Aken in Case.  Malerial is fisienced or Spillos CLEAN UP PASTE AND FLUSH REMAINING MATERIAL WITH LOTS OF WATER.	i i
Waste Disposed	نستخیرین
Methoda DISPOSE IN ACCORDANCE WITH LOCAL & STATE EPA REGULATIONS	

## MATERIAL SAFETY DATA SHEET

P.04 P.003/005 1910 7 flux

MSDS: 4952 EFFECTIVE DATE: 8-23-93

PAGE: 3 of 5 CODE: 686

V. FIRE AND EXPLOSIO	N DATA
Flashpoint (°F);	53
Flammable limits in air (% by volume)	
_ LOWER:	2.1
UPPER:	13.7
žxtinguishing media:	Alcohol-type or ell-purpose type foams for large fires. ${\rm CO_2}$ or dry chemical for small fires.
Special finalighting procedures:	Full protective equipment required. May release zinc oxide and HCl tumes. Toxic metal halide fumes produced.
Unusual fire and explosion hazards:	Dense smoke may be generated.
	######################################
VI. REACTIVITY INFORM	ATION
Stability considerations:	Stable
Conditions to avoid:	None
Hazardous polymerization:	Will not occur
Conditions to avoid:	None
Materials to avoid:	Strong nitrio, sulfurio acida, cyanide
fazardous combustion or	Sitting Solinia asaa, ayanka
Decomposition products:	In presence of water and heat - HCI and HF; also zinc oxide
178 <b>0</b> 011410416544859808000444444444444	; ;
VIII. SPILL AND LEAK RE	SPONSE 
Steps to be taken if material is	
released o <u>r spilled</u> :	If molten allowed to solidify, contain, absorb, sweep-up and dispose. Flush area to chemical sewer.
Waste disposal method:	Dispose of in accordance with all federal, state, and local regulations
AP 4 4 4 7 7 4 4 7 7 7 7 7 7 7 7 7 7 7 7	D 3 4 5 7 8 7 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9

P.094/895

### MATERIAL SAFETY DATA SHEET

1910 7 Just

MSDS: 4952 EFFECTIVE DATE: 5-23-93 PAGE: 4 of 5

CODE: 586

SPECIAL PROTECTION INFORMATION If the work station is not properly vantilated to exhaust all fumes and Respiratory protection: dusts, use a NIOSH approved mask. Maintain air flow away from user to remove all tumes and dusts so the Ventilation: the PEL is never exceeded. Adhere to environmental regulations for exhausts. Chemical and acid impervious Protective gloves: Chemical light salety goggles. Do NOT wear contact lenses. Eve protection: Full protective equipment normally used in a soldering operation so as Other protective equipment: to prevent any contact. STORAGE, HANDLING AND SPECIAL PRECAUTIONS Preceutions to be taken in handling Store flux at ambient conditions; keep under extremely dry and and storage: controlled conditions. Wash hands thoroughly after handling to remove all residue. Do not breathe fumes. May be fatall Professionally wash Other precautions: contaminated clothing before re-use. Material will naturally absorb moisture and cake solid. Existing lung disorders will have increased toxic susceptibility. PHYSICAL AND CHEMICAL PROPERTIES Boiling Point (°F @ 760 mmHg): 207 Specific gravity (H<sub>2</sub>O = 1 @ 72°F): 2.71 Vapor density (air = 1): 2.1 Vapor pressure: 14.8 mm Hg Percent volatiles by volume: 30% Solubility in water: Complete Evaporation rate (butyl acatate = 1): 1.3 Sea section I. Appearance and odor:

EMERGENCY PHONE NUMBER \* CALL CHEMTREC (800) 424-8300 \* AVAILABLE 24 HOURS

#### P.06 P.005/005

## MATERIAL BAFETY DATA SHEET

19107-flux

MSDS: 4952 EFFECTIVE DATE: 6-23-93

> PAGE: 5 of 6 CODE: 686

XI. OPTIONAL INFORMATION

Department of Transportation:

Domestic ground

Proper shipping name:

Flammable Liquid, N.O.S. (n-Propyl alcohol; Zinc chloride)

Hazard Class:

3, Subsidiary 8 UN 2924, PG II

ID & Packing Group Number: ERG Guide Number:

29

Toxic Substance Control Act:

All components of this compound are listed within the

TSCA inventory.

Hazard Communication Program, 29 CFR 1910 1200:

Hazardous warnings and training requirements as mandated

for corrosive powders.

SARA Title III Program:

Chemical components formulated within this product are not contained within any SARA III lists. RQ values apply.

State Right-to-Know Programs:

Pennsylvania:

All components required by PA act 34 part VIII.

California:

As currently manufactured this material contains no compound

subject to the reporting and labelling requirements of

Proposition 65.

All other states:

Contact the manufacturer.

Foreign Programs:

E:C 92:

Contact the manufacturer.

Canadian WHMIS:

Available upon specific written request to the manufacturer.

Miscellaneous:

Material contains in excess 10% zinc chloride, classified as a marine pollutant.

Other regulations may apply when shipping this material and are in the process of change and update, verify applicable regulations prior to shipment either domestically or internationally via ground, air, or water.

RQ aggregate values apply for RCRA, CERLA, and SARA.

EMERGENCY PHONE NUMBER \* CALL CHEMTREC (800) 424-9300 \* AVAILABLE 24 HOURS

Alloy Composition: 60Sn/40Zn

Ref. Kapp ID No. 129

Trade Name: NA

Manufacturer:

Kapp Alloy & Wire, Inc.

Telephone: 814 676 0613

FAX: 814 676 5565

E-mail: www.kappalloy.com

Address:

One Klein Street

PO Box 1188

Oil City, PA 16301 USA

Prepared by: Pamela Wightman

Revision: 1 Date: 02/1998

Attention: Safety or Health Coordinator:

Please retain this sheet for your files. Kapp Alloy maintains a file of Material Safety Data Sheets (MSDS) for each alloy produced in compliance with Federal Hazard Communication Standard (29 CFR 1910:1200) and various right-to-know laws.

Each MSDS has been updated to reflect the most recent significant information in our possession. A revised MSDS will be forwarded to you when significant changes of the information contained therein necessitate publication of an updated copy (or annually upon request). It is our policy to include an MSDS with initial order for each alloy. This submission is to become a matter of record and need not accompany subsequent shipments for the same alloy. The information contained on this sheet is intended solely to use for employee health and safety education and not for contract specification purposes. Should you need additional information, contact us.

### Section I - MATERIAL IDENTIFICATION / COMPONENTS

\*(Hazardous components 1% or greater; Carcinogens 0.1% or greater)

Comp	onent	CAS No.	OSHA PEL	ACGIH TLV	OTHER	% (optional)
Tin	(Sn)	7440-31-5	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	Molecular wt.: .264 lbs./in.3	60
Zinc	(Zn)	7440-66-6	5mg/m <sup>3</sup>	5 mg/m3	" .257 lbs./in. <sup>3</sup>	40

NA = Not Applicable, NE = Not Established

NAIF = No Applicable Information found

### Section II - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point:Sn @4120°F / 2270°C	Zn @ 1663°F / 906°C	Melting Point:	390 -	650°F / 199 - 343°C
Vapor Pressure (mm Hg.):	N/A	Vapor Density (AIR	= 1):	N/A

Specific Gravity: .2612 lbs./in.3

Solubility in Water: 0 (solid)

Evaporation Rate (Butyl Acetate = 1): N/A

Appearance and Odor: Lustrous, silver metal; odorless / various shapes and sizes.

#### Section III- FIRE AND EXPLOSION HAZARD DATA

				and the second s	manufacture of the second
Flash point		Auto Ingition	Flammability Limits	LEL	UEL
& Methods Used:	N/A		N/A (in air, % by volume):	N/A	N/A

Extinguisher Media:

CO<sub>2</sub> or dry chemical extinguisher.

DO NOT USE WATER ON MOLTEN METAL.

Large fires may be flooded with water from a distance.

Special Fire Fighting Procedures: Use NIOSH/MSHA -approved self-contained breathing apparatus and full

protective clothing if involved in fire.

Finely Divided dust may form explosive mixture with air.

NEVER DROP WATER OR LIQUIDS INTO MOLTEN SOLDER.

Do not plunge damp or wet solder bars/pieces into molten solder.

#### **Section IV - REACTIVITY HAZARD DATA**

Unusual Fire and Explosion Hazards:

Stability: STABLE	Conditions to avoid: NONE		***************************************
Incompatibility (materials to avoid):	Strong Acids, Strong Alkalis		
Hazardous Decomposition Products	NONE HAZARDOUS POLYME	RIZATION WILL NOT OCCUR	***************************************

nazardous Decomposition Products: NONE			HAZARDOOS FOLTMENIZATION WILL NOT GOOGIN
	Section V - HEALTH	HAZARD DATA	
	PRIMARY ROUTES OF ENTRY:	Inhalation: Ingestion: Skin Absorption:	Fumes Solid metal - not edible; highly unlikely N/A

Alloy Composition: 60Sn/40Zn Ref. Kapp ID No. 129 Trade Name: NA SIGNS AND SYMPTOMS OF OVEREXPOSURE: Flu-like symptoms (nausea, constipation, headache, dizziness) - self-limiting, usually disappear within 24 hours Section VI - EMERGENCY AND FIRST AID PROCEDURES INGESTION: \_Drink large quantities of water - induce vomiting. Call a physician at once; advise of chemical composition (section II). Wash thoroughly with water to remove all residue. If a rash develops, call a physician. INHALATION: Terminate exposure and remove to fresh air. Call physician, advise of chemical composition (section II). Flush with water for at least 15 minutes to remove irritant. Consult a physician. Section VII - EFFECTS OF ACUTE EXPOSURE Elemental Tin is NOT generally considered to be toxic. (Sn) Tin: Excessive inhalation of zinc oxide fumes may produce symptoms known as "zinc shakes" which are flu-like and (Zn) Zinc: usually cease when the individual is removed from the source. NOTE: IT IS UNLIKELY THAT NORMAL EXPOSURE (USING APPROPRIATE PROTECTIVE EQUIPMENT) TO THIS SOLDER WOULD RESULT IN ILLNESS. Section VIII - CONTROL AND PROTECTIVE MEASURES Respiratory Protection: Use NIOSH-approved breathing apparatus to prevent exposure to dusts and fumes. \_Approved safety glasses or welding goggles, appropriate to your procedure. should be worn. Eye Protection: Special: Conform with your regulatory statutes. Local Exhaust: YES Mechanical: YES Ventilation: Protective gloves are recommended, especially for high temperature applications to prevent burns. Standard protective equipment used in soldering (/applicable) operations. Conform with all local, state, federal regulations. Section IX - PRECAUTIONS FOR SAFE HANDLING AND USE / LEAX PROCEDURES SOLDER IS SOLID/RECYCLABLE. Vacuuming is recommended for Steps to be taken if material is spilled or released: accumulated metal dust from saw/grind operations. DISPOSE OF ACCORDING TO FEDERAL, STATE, LOCAL AND OSHA Waste Disposal Method: REGULATIONS. DRY STORAGE: AMBIENT TEMPERATURE Precautions to be taken in handling and storage: Wet or moist ingot(s) WILL present an explosion hazard when Other Precaution / Special Handling: submerged in molten solder. Always preheat ingot before charging into furnace. AVOID FIRE RISKS. 4 = Extreme\*0 = Insigniticant 1 = Slight NFPA RATING: Health: 1 Flammability: Reactivity: Special: HMIS RATING: Health: Flammability: Reactivity: Special: Section X. OPTIONAL INFORMATION **DEPARTMENT OF TRANSPORTATION:** Solder alloy - NOT REGULATED Proper shipping name: NAIF Hazard Class: NAIF ID & Packing Group Number: ERG Guide Number: This product contains no toxic chemicals subject to the reporting requirements of EPCRA of 1986 and 40 GFR 372 SARA Title III Program: This information must be included in all MSDS that are copied and distributed for this material.

GOOD HOUSEKEEPING PROCEDURES SHOULD BE MAINTAINED.
PERSONNEL SHOULD WASH THOROUGHLY BEFORE SMOKING OR EATING
FOOD AND DRINK SHOULD NOT BE CONSUMED OR TOBACCO PRODUCTS USED.
NOR COSMETICS APPLIED IN AREAS WHERE EXPOSURES EXIST.

Kapp, Alloy & Wire, Inc.

Address: One Klein Street PO Box 1188 Oil City, PA 16301 USA

Telephone: 814 676 0613

FAX: 814 676 5565

E-mail: www.kappalloy.com

Alloy Composition: 60Sn/40Zn Ref. Kapp ID No. 129 Trade Name: NA

Kapp Alloy & Wire, Inc. Manufacturer:

E-mail: www.kappalloy.com Telephone: 814 676 0613 FAX: 814 676 5565

Oil City, PA 16301 USA One Klein Street PO Box 1188 Address:

Prepared by: Pamela Wightman Revision: 1 Date: 02/1998

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## Section I. MATERIAL IDENTIFICATION / COMPONENTS

Component	CAS No.	OSHA PEL	ACGIH TLV	OTHER	% (optional)
Tin (Sn)	7440-31-5	2 mg/m <sup>3</sup>	2 mg/m³	Molecular wt.: .264 lbs./in.3	60
Zinc (Zn)	7440-66-6	5mg/m <sup>3</sup>	5 mg/m3	" .257 lbs./in. <sup>3</sup>	40
NA = Not Applicable, NE = N		ALCHADACTE	RISTICS		
Section II - Pi	HASICAL / CHEMIC	ME CHANACIE	11101100		
Section II - Pl Boiling Point:Si	1 @4120°F / 2270°C Zn @		Melting Poin	t: 390 - 650°F / 199 - 3	43°C

Specific Gravity: .2612 lbs./in.3 N/A Evaporation Rate (Butyl Acetate = 1): Solubility in Water: 0 (solid)

Lustrous, silver metal; odorless / various shapes and sizes. Appearance and Odor:

## Section III- FIRE AND EXPLOSION HAZARD DATA

UEL Flammability Limits LEL Flash point **Auto Ingition** N/A N/A N/A (in air, % by volume): & Methods Used: N/A Temperature:

CO2 or dry chemical extinguisher. Extinguisher Media:

DO NOT USE WATER ON MOLTEN METAL.

Large fires may be flooded with water from a distance.

Use NIOSH/MSHA -approved self-contained breathing apparatus and full Special Fire Fighting Procedures: protective clothing if involved in fire.

Finely Divided dust may form explosive mixture with air. **Unusual Fire and Explosion Hazards:** 

NEVER DROP WATER OR LIQUIDS INTO MOLTEN SOLDER.

Do not plunge damp or wet solder bars/pieces into molten solder.

### Section IV - REACTIVITY HAZARD DATA

Conditions to avoid: NONE Stability: STABLE Strong Acids, Strong Alkalis Incompatibility (materials to avoid): HAZARDOUS POLYMERIZATION WILL NOT OCCUR Hazardous Decomposition Products: NONE

Section	ı V - 🦠 HEALTH HAZAI	RD DATA	
	PRIMARY	Inhalation:	Fumes
	ROUTES	Ingestion:	Solid metal - not edible; highly unlikely
	OF FNTRY:	Skin Absorption:	N/A·

Skin Absorption:

OF ENTRY:

Ref. Kapp ID No. 129 Trade Name: NA Alloy Composition: 60Sn/40Zn SIGNS AND SYMPTOMS OF OVEREXPOSURE: Flu-like symptoms (nausea, constipation, headache, dizziness) - self-limiting, usually disappear within 24 hours Section VI - EMERGENCY AND FIRST AID PROCEDURES INGESTION: Drink large quantities of water - induce vomiting. Call a physician at once; advise of chemical composition (section II). Wash thoroughly with water to remove all residue. If a rash develops, call a physician. INHALATION: Terminate exposure and remove to fresh air. Call physician, advise of chemical composition (section II). Flush with water for at least 15 minutes to remove irritant. Consult a physician. Section VII - EFFECTS OF ACUTE EXPOSURE Elemental Tin is NOT generally considered to be toxic. (Sn) Tin: Excessive inhalation of zinc oxide fumes may produce symptoms known as "zinc shakes" which are flu-like and (Zn) Zinc: usually cease when the individual is removed from the source. NOTE: IT IS UNLIKELY THAT NORMAL EXPOSURE (USING APPROPRIATE PROTECTIVE EQUIPMENT) TO THIS SOLDER WOULD RESULT IN ILLNESS. Section VIII - CONTROL AND PROTECTIVE MEASURES Respiratory Protection: Use NIOSH-approved breathing apparatus to prevent exposure to dusts and fumes. \_Approved safety glasses or welding goggles, appropriate to your procedure, should be worn. Eve Protection: Special: Conform with your regulatory statutes. Local Exhaust: YES Mechanical: YES Ventilation: Protective gloves are recommended, especially for high temperature applications to prevent burns. Standard protective equipment used in soldering (/applicable) operations. Conform with all local, state, federal regulations. Section IX - PRECAUTIONS FOR SAFE HANDLING AND USE / LEAK PROCEDURES SOLDER IS SOLID/RECYCLABLE. Vacuuming is recommended for Steps to be taken if material is spilled or released: accumulated metal dust from saw/grind operations. DISPOSE OF ACCORDING TO FEDERAL, STATE, LOCAL AND OSHA Waste Disposal Method: REGULATIONS. DRY STORAGE; AMBIENT TEMPERATURE Precautions to be taken in handling and storage: Wet or moist ingot(s) WILL present an explosion hazard when Other Precaution / Special Handling: submerged in molten solder. Always preheat ingot before charging into furnace. AVOID FIRE RISKS. 4 = Extreme 3 **–** High \*0 = Insignificant 1 = Slight Reactivity: Special: Flammability: Health: NFPA RATING: Reactivity: 0 Special: Flammability: HMIS RATING: Health: Section X. OPTIONAL INFORMATION **DEPARTMENT OF TRANSPORTATION:** Soider alloy - NOT REGULATED Proper shipping name: NAIF Hazard Class: NAIF ID & Packing Group Number: NAIF ERG Guide Number: This product contains no toxic chemicals subject to the reporting requirements of EPCRA of 1986 and 40 GFR 372 SARA Title III Program: This information must be included in all MSDS that are copied and distributed for this material.

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FOOD AND DRINK SHOULD NOT BE CONSUMED OR TOBACCO PRODUCTS USED.
NOR COSMETICS APPLIED IN AREAS WHERE EXPOSURES EXIST.

Kapp Alloy & Wire, Inc.

Address: One Klein Street PO Box 1188 Oil City, PA 16301 USA

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Page 1 of 2

# **Material Safety Data Sheet**

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Manufacturer: Kapp Alloy & Wire, Inc.

Telephone: 814 676 0613 FAX: 814 676 5565 E-mail: www.kappalloy.com

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Prepared by: Pamela Wightman Revision: 1 Date: 02/1998

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## Section I - MATERIAL IDENTIFICATION / COMPONENTS

*(Hazardous components 1%			

Comp	onent	CAS No.	OSHA PEL /	ACGIH TL\	V OTHER	🦢 (optional)
Tin	(Sn)	7440-31-5	2 mg/m <sup>3</sup> 2	2 mg/m³	Molecular wt.:	.264 lbs./in. <sup>3</sup> 60
Zinc	(Zn)	7440-66-6	5mg/m³ {	5 mg/m3	tt.	.257 lbs./in.3 40

NA = Not Applicable, NE = Not Established NAIF = No Applicable Information found

### Section II - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point:Sn @4120°F / 2270°C	
Vanor Pressure (mm Hg.):	N/A Vapor Density (AIR = 1): N/A
cific Gravity: 2612 the lin 3	

cific Gravity: .2612 lbs./in.3

Solubility in Water: 0 (solid) Evaporation Rate (Butyl Acetate = 1): N/A

Appearance and Odor: Lustrous, silver metal; odorless / various shapes and sizes.

#### Section III- FIRE AND EXPLOSION HAZARD DATA

Flash point	Auto Ingition Flammability Limits LEL UEL
& Methods Used:	N/A Temperature: N/A (in air, % by volume): N/A N/A

Extinguisher Media: CO<sub>2</sub> or dry chemical extinguisher.

DO NOT USE WATER ON MOLTEN METAL.

Large fires may be flooded with water from a distance.

Special Fire Fighting Procedures: Use NIOSH/MSHA -approved self-contained breathing apparatus and full

protective clothing if involved in fire.

Unusual Fire and Explosion Hazards: Finely Divided dust may form explosive mixture with air.

NEVER DROP WATER OR LIQUIDS INTO MOLTEN SOLDER.

Do not plunge damp or wet solder bars/pieces into molten solder.

#### Section IV - REACTIVITY HAZARD DATA

Stability: STABLE	Conditions to avoid: NONE
Incompatibility (materials to avoid):	Strong Acids, Strong Alkalis
Hazardous Decomposition Products	NONE HAZARDOUS POLYMERIZATION WILL NOT OCCUR
nazardous Decomposition Froducts	NONE HAZARDOOG FOLIMERIZATION TILL TO FOOGS.

	Section V - HEALTH F	HAZARD DATA
	PRIMARY	Inhalation: Fumes
	ROUTES	Ingestion: Solid metal - not edible; highly unlikely
	OF ENTRY:	Skin Absorption: N/A
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Ref. Kapp ID No. 129 Trade Name: NA Alloy Composition: 60Sn/40Zn SIGNS AND SYMPTOMS OF OVEREXPOSURE: Flu-like symptoms (nausea, constipation, headache, dizziness) - self-limiting, usually disappear within 24 hours Section VI - EMERGENCY AND FIRST AID PROCEDURES Drink large quantities of water - induce vomiting. INGESTION: Call a physician at once; advise of chemical composition (section II). Wash thoroughly with water to remove all residue. If a rash develops, call a physician. SKIN: INHALATION: Terminate exposure and remove to fresh air. Call physician, advise of chemical composition (section II). Flush with water for at least 15 minutes to remove irritant. Consult a physician. EYES: Section VII - EFFECTS OF ACUTE EXPOSURE Elemental Tin is NOT generally considered to be toxic. (Sn) Tin: Excessive inhalation of zinc oxide fumes may produce symptoms known as "zinc shakes" which are flu-like and (Zn) Zinc: usually cease when the individual is removed from the source. NOTE: IT IS UNLIKELY THAT NORMAL EXPOSITE (USING APPROPRIATE PROTECTIVE EQUIPMENT) TO THIS SOLDER WOULD RESULT IN ILLNESS. Section VIII - CONTROL AND PROTECTIVE MEASURES Respiratory Protection: Use NIOSH-approved breathing apparatus to prevent exposure to dusts and fumes. Approved safety glasses or welding goggles, appropriate to your procedure, should be worn. Eve Protection: Special: Conform with your regulatory statutes. Local Exhaust: YES Mechanical: YES Ventilation: Protective gloves are recommended, especially for high temperature applications to prevent burns. Standard protective equipment used in soldering (/applicable) operations. Conform with all local, state, federal regulations. Section IX - PRECAUTIONS FOR SAFE HANDLING AND USE / LEAK PROCEDURES SOLDER IS SOLID/RECYCLABLE. Vacuuming is recommended for Steps to be taken if material is spilled or released: accumulated metal dust from saw/grind operations. DISPOSE OF ACCORDING TO FEDERAL, STATE, LOCAL AND OSHA Waste Disposal Method: REGULATIONS. DRY STORAGE; AMBIENT TEMPERATURE Precautions to be taken in handling and storage: Wet or moist ingot(s) WILL present an explosion hazard when Other Precaution / Special Handling: submerged in molten solder. Always preheat ingot before charging into furnace. AVOID FIRE RISKS. 4 = Extreme3 = High \*0 = Insignificant 1 = Slight 2 = Moderate Flammability: Reactivity: Special: 0 0 NFPA RATING: Health: Reactivity: Special: Flammability: n Health: HMIS RATING: Section X. OPTIONAL INFORMATION DEPARTMENT OF TRANSPORTATION: Solder alloy - NOT REGULATED Proper shipping name: NAIF Hazard Class: NAIF ID & Packing Group Number: NAIF ERG Guide Number: This product contains no toxic chemicals subject to the reporting requirements of EPCRA of 1986 and 40 CFR 372 SARA Title III Program: This information must be included in all MSDS that are copied and distributed for this material.

GOOD HOUSEKEEPING PROCEDURES SHOULD BE MAINTAINED.
PERSONNEL SHOULD WASH THOROUGHLY BEFORE SMOKING OR EATING
FOOD AND DRINK SHOULD NOT BE CONSUMED OR TOBACCO PRODUCTS USED.
NOR COSMETICS APPLIED IN AREAS WHERE EXPOSURES EXIST.

Kapp Alloy & Wire, Inc.

Address: One Klein Street PO Box 1188 Oil City, PA 16301 USA

Telephone: 814 676 0613 FAX: 814 676 5565 E-mail: www.kappalloy.com