16/3



M-FMBTALS

non-ferrous metals, inc.

SMELTERS AND REFINERS

2905 - 13th Ave. S.W. - Seattle, Washington 98134

Phone: 624-8414

MATERIAL SAFETY DATA SHEI May be used to comply with ON Hazard Communication Standard CFR 1910.1200. Standard must consulted for specific requip

A. GENERAL INFORMATION

TRADE NAME: Tin-Based Babbitts , Lead-Free Pewter

CHEMICAL NAME: Tin-Antimony-Copper

FORMULA: SN-SB-CU

MOLECULAR WEIGHT: not applicable

ADDRESS: Non-Ferrous Metals, Inc.

2905 - 13th Avenue S.W.

Seattle, WA 98134

CONTACT: Non-Ferrous Metals, Inc.

2905 - 13th Avenue S.W.

Seattle, WA 98134

PHONE:

(206) 624-8414

ISSUE DATE: REVISED DATE:

B. HAZARDOUS INGREDIENTS.

MATERIAL OR COMPONENT	CAS #	WT %	PERMISSIBLE AIR CONCENT
Tin	7440-3 1 -5	95	2.0mg/cu.m.
Antimony	7440-36-0	5	0.5mg/cu.m.

C. FIRST AID MEASURES

Inhalation: If symptoms of respiratory distress occur or there has been a known exposure to dense fume, remove from exposure, place individual at bed rest, and immediately call a physician,

Ingestion: Induce vomiting in conscious individual and call a physician.

Skin or eyes: Flush with plenty of water. If symptoms develop, consult a physician.

SYMPTOMS:

INGESTION: Tin is relatively non-toxic but may cause fever, nausea, stomach cramps or diarrhea. Antimony causes severe irritation of stomach and intestines. Systematic poisoning may occur.

SKIN: Dermatitis may result from repeated skin contact with antimony compounds. Possible mechanical irritation of skin.

EYES: Severe eye irritation may occur from antimony exposure.

MEDICAL CONDITIONS POSSIBLE AGGRAVATED: Diseases of the liver, kidneys, nervous system, blood, blood forming organs and possibly reproductive systems. Diseases of the lungs as well.

V# 090820

UNUSUAL CHRONIC TOXICITY: Liver and kidney abnormalities or pneumonitis may result from chronic antimony exposure. Possible increase in throat or lung cancer from antimony exposure. See Section K.

FIRE AND EXPLOSION:

Flash Point - Not applicable Auto Ignition Tempature - Not applicable Flammable Limits In Air (% by Volume) - Tin Dust --0.19 oz/cu.ft. Unusual Fire and Explosion Hazards: Finely divided tin dust may form explosive mixtures with air.

D. PRECAUTIONS/PRECEDURES

FIRE EXTINGUISHING AGENTS RECOMMENDED: Class D Extinguisher; dry powder type.

FIRE EXTINGUISHING AGENTS TO AVOID: No specific agents.

SPECIAL FIRE FIGHTING PRECAUTIONS: Use NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing if involved in fire.

ENGINEERING CONTROLS: Local exhaust ventilation is required for melting, grinding, screening, soldering, or other operations where excessive exposures may occur.

NORMAL HANDLING: Use of approved respirators is required for applications where adequate ventilation cannot be provided. When melted, the tempature should be kept as low as possible. Activities which generate dust or fumes should be avoided.

STORAGE: Avoid storage near acids, bases, hascent hydrogen or reducing agents. Avoid storage near chlorine or other halogens and alkaline nitrates.

SPILL OR LEAK: A clean-up procedure which minimizes exposure is required. Vacuuming is preferred. Place all material in closed containers. Do not use compressed air for cleaning. Use approved respiratory protection is possibility of dust/fume exposure exists.

SPECIAL PRECAUTIONS/PROCEDURES/LABEL INSTRUCTIONS: Signs and labels in work areas and for contaminated containers or equipment may be required under OSHA regulations. Medical examinations, monitoring, recordkeeping and hygiene facilities and practices specified by OSHA my have to be met. Employee training program may be required.

PERSONAL HYGIENE: Practice good housekeeping and personal hygiene procedures. No tobbacco or food in work area. Wash thoroughly before eating or smoking. Avoid ingestion or inhalation. Take a shower and change clothes at end of shift. Do not wear contaminated clothing home. Do not use compressed air for blowing dust off of clothes.

E. PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: NIOSH/MSHA approved respirator for toxic dust and/or fumes

EYES AND FACE: Safety glasses recommended for grinding or other operations generating flying particles.

HANDS, ARMS, AND BODY: Gloves or other protective clothing required of skin contact is appreciable.

OTHER CLOTHING AND EQUIPMENT: Full protective clothing (coveralls) is required if the permissable exposure limit is exceeded. Recommended for any operation with significant skin contact. All contaminated clothing should be removed before leaving the plant area.

F. PHYSICAL DATA

MATERIAL AT NORMAL CONDITIONS IS: Solid (bar, ingot, wire etc.)

APPEARANCE AND ODOR: Gold tinged to white metallic - no odor.

BOILING POINT: Antimony 2484 F MELTING POINT: 520 F

SPECIFIC GRAVITY: 7.52 VAPOR DENSITY (AIR 1): Not applicable

SOLUBILITY IN WATER (* by weight): Insoluble PH: Not applicable

VAPOR PRESSURE (MM HG AT 20'C): Not applicable EVAPORATION RATE: Not applicable

G. REACTIVITY DATA

STABILITY: Stable CONDITIONS TO AVOID: Not applicable

INCOMPATABILITY (MATERIALS TO AVOID): Contact with hydrogen peroxide may cause voilent reaction. Bromine, chlorine plus heat, sodium or potassium peroxides or perchloric acid may react with incadescence, heat or explosion. Antimony is spontaneously flammable in chlorine, flurine, or bromine. With any alkali nitrate and heat explosion may result.

HAZARDOUS DECOMPOSITION PRODUCTS: Under reducing conditions (i.e., any strong acid or base plus active metal) or in the presence of nascent hydrogen, highly toxic stibine gas (TLV-0.10ppm) may be evolved. At tempatures above the melting point, metal oxide fumes may be evolved.

HAZARDOUS POLYMERIZATION: Will not occur CONDITIONS TO AVOID: Not applicable

H. ENVIRONMENTAL

EPA HAZARDOUS SUBSTANCE? No (40 CFR 116-117)

WASTE DISPOSAL METHODS (DISPOSER MUST COMPLY W/FEDERAL, STATE AND LOCAL LAWS): If hazardous under 40 CFR 261, Subpart B & C, material must be treated or disposed in a facility meeting the requirements of 40 CFR 264 or 265. If non-hazardous, material should be disposed in a facility meeting the requirements of 40 CFR 257. This material may have value on a recycled basis.

RCRA STATUS OF UNUSED MATERIAL: (40 CFR 261-11) If discarded in unaltered form, material should be considered a hazardous waste due to listing in 40 CFR 261.11 (3), Appendix VIII. Under spcific circumstances, application can be made to EPA Administrator to have a particular waste disignated non-hazardous.

I. PEFERENCES

PERMISSIBLE CONCENTRATION REFERENCES: OSHA regulations for airborne contaminants 29 CFR 1910.1000. OSHA regulation 29 CFR 1010.1025. ACGIH "Threshold Limit Values for Chemical Substances..."; 1983-84.

HAZARD INFORMATION REFERENCES: "Documentation of the Threshold Limit Values," 4th ED., ACGIH Patty's Industrial Hygiene and Toxicology, Vol. 2A, 3rd Rev. Ed., 1981. NFPA "Fire Protection Guide on Hazardous Materials," NIOSH, 1980. "Registry of Toxic Effects of Chemical Substances," NIOSH, 1980. "Criteria for a Recommended Standard.. Occupational Exposure to Antimony, NIOSH, 1978.

GENERAL: "Inflammability and Explosibility of Metal Powers," Bureau of Mines RI 3722, 1943. Jacobsen, M., et. al., "Explosibility of Metal Powers," Bureau of Mines RI 6516, 1964. OSHA Regulation 29 CFR 1910.134 Respiratory Protection. ACGIH "Industrial Ventilation Manual"

J. ADDITIONAL INFORMATION

INFORMATION (HAZARDS, PRECAUTIONS, FIRST AID, ETC.) IS ABBREVIATED. MORE DETAILED INFORMATION IS CONTAINED IN REFERENCES FOUND IN SECTION J.

Hazard Information: Inhalation: Stannosis, a benign pnuemonoconiosis, may result from chronic tin exposure. Pulmonary function is not affected. Antimony exposure may cause respiratory tract irritation, metallic taste or damage to kidney, liver, or nervous system,

Recommended Exposure Limit: Antimony--0.2mg/cu.m respirable fraction.

THIS MATERIAL SAFETY DATA SHEET IS OFFERED SOLEY FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION.

NON-FERROUS METALS, INC., PROVIDED NO WARRANTIES, EITHER EXPRESS OR IMPLIED AND ASSUMES NO RESPONSIBILTY FOR THE ACCURACY OR COMPLETENESS OF THE DATA CONTAINED HEREIN.

IRanroduna Incellia

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form) Form Approved OMB No. 1218-0072



		O 12 1.	0-007E		
IDENTITY (As Used on Label and List) ANTIMON	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 I					
Manufacturer's Name NA (a base metal)		Emergency Tele	phone Number NA		
Address (Number, Street, City, State, and ZIP Code) NA	Telephone Number for Information NA				
		Date Prepared	godining (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (1995) (19	AND AND THE REAL PROPERTY OF THE PROPERTY OF T	4
		Signature of Pre	parer (optional)		
Section II — Hazardous Ingredients/Identi	y Information)			
Hazardous Components (Specific Chemical Identity; Co	mmon Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Antimony, other contaminants:	NONE	maket kan		umpaummy de faille du marken en de service en en elle 0 + 2 + 10 au ser se en marke	100.0
Exposure Limits:		· · · · · · · · · · · · · · · · · · ·	 		
Antimony:			-		galijangan mayanak makin di Sakali (1900) atau di Antania (1900) atau di Antania (1900) atau di Antania (1900)
0.5 MG/M3 OSHA TWA;	HOMES, II.		**************************************		the late and the l
0.5 MG/M3 ACGIH TWA;		······································		Analysis of the second of the	
0.5 MG/M3 NIOSH recommended	rwa		Other state of the	000000 0000000000000000000000000000000	
			en species de la company d La company de la company d		
					Parado de la composição
Section III — Physical/Chemical Character	stics			PRINCE	
Boiling Point 2516 F (1635 C)	-	Specific Gravity (H ₂ O = 1) 6.7		
Vapor Pressure (mm Hg.) 1 MMHG @ 1627 F		Melting Point 1202	F (630 C)		
Vapor Density (AIR = 1) NA		Evaporation Rate (Butyl Acetate =		antika Taringan da da kanada nga gamaning panada ka Carpa, gamada ka Carba-uk antan ka Kaba	Control of the Contro
Solubility in Water Insoluble Solvent so	lubility:	soluble in	Ammonium Sul	fide, hot su	lfuric acid
Appearance and Odor Silvery-White Lust:	rous Metal				
Section IV — Fire and Explosion Hazard D	ata			alemakan kan junis kan merika menan kan kabupan kenan menjani mensipum ya	
Flash Point (Method Used) Moderate Fire Hazard when exposed	d to heat o	Flammable Limits	see attached s		VEL.
Exinguishing Media Dry chemical, carbon dioxide, wa	ter spray o	or foam/larg	er fires, use	e water spray	y, fog or
Special Fire Fighting Procedures	See attache	ed sheets	and the construction of the transformation of the construction of	al	cohol foam.
Unusual Fire and Explosion Hazards					
	See attache	ed sheets		-CALANTINA III AARIS	endunaeruuminasendanieumaaeeumaa

Stability	Unstable	T	Conditions to Avoid See attached sheets
-	Stable	_	
		xx	Under normal tempatures and pressures.
incompatibility (Materials to Avoid	5	ee attached sheets.
Assardous Doco Stirred	mposition or Byproc antimony ha	uels M lide	ay release toxic stibine gas under thermal decompostion. yields explosive antimony.
Hazardous Polymerization	May Occur		Conditions to Avoid See attached sheets.
•	Will Not Occur	xx	Hazardous Polymenization has not been reported to occur under normal tempatures and pressures.
Section VI -	- Health Hazard	d Data	
Route(s) of Entry	r. Inh See atta	alation? ched	Skin? Ingestion?
Health Hazards	(Acute and Chronic)		e attached sheets.
2112111.002100.1111110 CARLESTON (1021		0.44.1.4.44.44.44	
1 12.1 - 12.2 - 12 12 12 12 12.			
**************************************			IARC Monographs? OSHA Regulated?
Carcinogenicity: According	to the 4th	P? annua	IARC Monographs? OSHA Regulated? report on carinogens, 1985 U.S. Public Health
Service Ar	ntimony is n	ot li	sted as carcingen.
Signs and Symp	toms of Exposure	See	attached sheets.
<u> </u>			
Medical Condition	nns	C - 4	
Generally Aggra	valed by Exposure	see	attached sheets.
Emergency and	First Aid Procedure	s See	attached sheets.
Emergency and	First Aid Procedure	s See	attached sheets.
) C C	
Section VII -	- Precautions	for Sa	fe Handling and Use
Section VII -	- Precautions	for Sa	
Section VII -	- Precautions	for Sa	fe Handling and Use
Section VII -	- Precautions	for Sa	fe Handling and Use
Section VII - Steps to Be Tak	— Precautions en in Case Maleria	for Sa	fe Handling and Use
Section VII -	— Precautions en in Case Maleria	for Sa	fe Handling and Use ased or Spilled See attached sheets.
Section VII - Steps to Be Tak Waste Disposal	Precautions ten in Case Materia Method	for Sa is Relea	fe Handling and Use assd or Spilled See attached sheets. attached sheets.
Section VII - Steps to Be Tak Waste Disposal	— Precautions en in Case Maleria	for Sa is Relea	fe Handling and Use assd or Spilled See attached sheets. attached sheets.
Section VII - Steps to Be Tak Waste Disposal	Precautions ten in Case Materia Method	for Sa is Relea	fe Handling and Use ased or Spilled See attached sheets. attached sheets.
Section VII - Steps to Be Tak Waste Disposal	Precautions ten in Case Maleria Method Be Taken in Handlin	for Sa is Release See	fe Handling and Use ased or Spilled See attached sheets. attached sheets.
Section VII - Steps to Be Tak Waste Disposal Precautions to 6	Precautions ten in Case Maleria Method Be Taken in Handlin	for Sa is Release See	fe Handling and Use ased or Spilled See attached sheets. attached sheets. toing See attached sheets.
Section VII - Steps to Be Tak Waste Disposal Precautions to 6	Precautions ten in Case Maleria Method Be Taken in Handlin	for Sa is Release See	fe Handling and Use ased or Spilled See attached sheets. attached sheets. toing See attached sheets.
Section VII - Steps to Be Tak Waste Disposal Precautions to 6	Precautions ten in Case Maleria Method Be Taken in Handlin	for Salis Release	fe Handling and Use ased or Spilled See attached sheets. attached sheets. toring See attached sheets. tached sheets.
Section VII - Steps to Be Tak Waste Disposal Precautions to 6 Other Precautio	— Precautions ten in Case Maleria Method Be Taken in Handlin	for Sa Is Release See	fe Handling and Use ased or Spilled See attached sheets. attached sheets. toring See attached sheets. tached sheets.
Section VII - Steps to Be Tak Waste Disposal Precautions to 6 Other Precautio	— Precautions ten in Case Materia Method Be Taken in Handlin The Control Method in Case Method in Case Materia Local Exhaust II	for Salis Releases See	fe Handling and Use ased or Spilled See attached sheets. attached sheets. toring See attached sheets. tached sheets. See attached sheets. See attached sheets. See attached sheets. de local exhaust or process enclosure ventilation to meet
Section VII - Steps to Be Tak Waste Disposal Precautions to E Other Precaution Section VIII Respiratory Pro	— Precautions ten in Case Materia Method Be Taken in Handlin S — Control Method Tection (Specify Type	for Salis Release See gand S ee at Providexposi	fe Handling and Use ased or Spilled See attached sheets. attached sheets. toring See attached sheets. tached sheets. See attached sheets. See attached sheets. See attached sheets. de local exhaust or process enclosure ventilation to meet
Section VII - Steps to Be Tak Waste Disposal Precautions to 6 Other Precautio Section VIII Respiratory Pro Ventilation	Method Be Taken in Handlin Se Control Method Local Exhaust I published of Mechanical (General Property 1997)	for Sa Is Release See g and S ee at Provide Exposional	fe Handling and Use ased or Spilled See attached sheets. attached sheets. toring See attached sheets. tached sheets. See attached sheets. de local exhaust or process enclosure ventilation to meet are limits. Other car appropriate pro- Eye Protection Employee must wear splash-proof of
Section VII - Steps to Be Tak Waste Disposal Precautions to E Other Precaution Section VIII Respiratory Proventilation	Method Be Taken in Handlin The Control Method Control Method Local Exhaust I published of Mechanical (General Loves to present the present to present the present to present the present to present the presen	for Sa Is Release See g and S ee at asures Providexpost sea)	fe Handling and Use ased or Spilled See attached sheets. attached sheets. toring See attached sheets. tached sheets. See attached sheets. de local exhaust or process enclosure ventilation to meet are limits. Other car appropriate pro- Eye Protection Employee must wear splash-proof of

Material Safety Data Sheet May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

(Reproduce tocalist

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved

OMB No. 1218-0072



IDENTITY (As Used on Label and Ust) COPPER	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 I				
Manufacturer's Name NA (A Base Metal)	Emergency Telephone Number NA			
Address (Number, Street, City, State, and ZIP Code)	Telephone Number for Information			
	NA			
	Date Prepared			
	Signature of Preparer (optional)			
Section II — Hazardous Ingredients/Identity Inform	nation			
Hazardous Components (Specific Chemical Identity; Common Nam	Other Limits • ne(s)) OSHA PEL ACGIH TLV Recommended % (option			
Copper, other contaminants: NONE				
Exposure Limits:				
Copper:				
0.1 MG/M3 OSHA TWA (Fume); 1 MG/M3 OS	HA TWA (dust & mist)			
0.2 MG/M3 ACGIH TWA (Fume); 1 MG/M3 A				
Castley III - Short at 101				
Section III — Physical/Chemical Characteristics				
Boiling Point 4653 F (2567 C)	Specific Gravity (H ₂ O = 1) 8.92			
Vapor Pressure (mm Hg.) 1 MMHG @ 1628 C	Melting Point 1946 F (1083 C)			
Vapor Density (AIR = 1) NA	Evaporation Rate (Butyl Acetate = 1) NA			
Solubility in Water Insoluble Solvent solu	bility: Nitric Acid, Sulfuric Acid			
Appearance and Odor Reddish, Ductile, Malle	able Metal			
Section IV — Fire and Explosion Hazard Data				
Flash Point (Method Used) Flammable (dust)	Flammable Limits See attached sheets LEL UEL			
Extinguishing Media Use dry sand, dry dolomite	, dry graphite, or sodium chloride. Do not use w			
Special Fire Fighting Procedures See attached sheet				
Unusual Fire and Explosion Hazards See attached shee	ets.			
-				

	Unstable		Conditions to Avoid See at	tached sheets.	
	Stable	XX	Stable under norm	mal tempatures a	nd pressures.
compatibility	(Materials to Avoid		e attached sheets.		
			A		
ezardous Deco	mposition or Bypro	ducis T		n may release to	xic and/or hazardous gases
Hazardous Połymerization	May Occur		Conditions to Avoid See at	ttached sheets.	manifestation of the secretarial design of the secretarian control of the s
•	Will Not Occur	XX	None Known.		
ection VI -	- Health Hazar	rd Data			
oute(s) of Entr	See attac	halalion? hed sh	eets. Skir	n?	Ingestion?
•			attached sheets.		
······································					
AND THE RESIDENCE OF THE PARTY	0-00-00-00-00-00-00-00-00-00-00-00-00-0				
'asiaaaaalaite	· ·	ITP?	IAF	C Monographs?	Dublic OSHA Provided Lice.
				ens, 1985 U.S.	Public RSHA ERouse Vice,
	not listed		rcinogen.		
Signs and Sym	ptoms of Exposure	See	attached sheets.		
	<u> </u>				
Medical Conditi	ons	See	attached sheets.		
Senerally Aggra	avaled by Exposure	9		***************************************	
	z mil				,
Emergency and	First Aid Procedu	res Se	e attached sheets.		
	<u> </u>				
Section VII	- Precaution:	s for Sa			
			ife Handling and Use	ached sheets.	
	— Precautions uken in Case Mater		ife Handling and Use	ached sheets.	
			ife Handling and Use	ached sheets.	
			ife Handling and Use	ached sheets.	
Steps to Be Ta	uken in Case Mater	ial Is Rele	ife Handling and Use	ached sheets.	
Steps to Be Ta	uken in Case Mater	ial Is Rele	ofe Handling and Use pased or Spilled See atta	ached sheets.	
Steps to Be Ta	Method See	attach	ife Handling and Use sased or Spilled See atta		
Steps to Be Ta	uken in Case Mater	attach	ofe Handling and Use reased or Spilled See atta		
Steps to Be Ta Waste Disposa Precautions to	I Method See	attach	ife Handling and Use sased or Spilled See atta		
Steps to Be Ta Waste Disposa Precautions to	I Method See	attach	ife Handling and Use sased or Spilled See atta		
Steps to Be Ta Waste Disposa Precautions to	I Method See	attach	ste Handling and Use sased or Spilled See attached Storing See attached		
Waste Disposa Precautions to	I Method See Be Taken in Hand	attach	afe Handling and Use sased or Spilled See attacked sheets. Storing See attacked sheets.		
Waste Dispose Precautions to Other Precauti	I Method See Be Taken in Hand	attach	ased or Spilled See attached sheets. Storing See attached sheets.		
Waste Dispose Precautions to Other Precaut Section VI Respiratory President Control of the Precaution VI	I Method See Be Taken in Hand lone See att II — Control M rotection (Specify Ty	attach	afe Handling and Use sased or Spilled See attacked sheets. Storing See attacked sheets.	sheets -	
Waste Disposa Precautions to Other Precauti	Method See Ba Taken in Hand lons See att II — Control M rotection (Specify T) Local Exhaust meet publ	attach attach ached leasure (PPO) Se	ased or Spilled See attached sheets. Storing See attached sheets.	sheets.	e attached sheets.
Waste Disposa Precautions to Other Precaut Section VI Respiratory Presidents	Method See Be Taken in Hand ons See att	attach attach ached leasure (PPO) Se	de Handling and Use sased or Spilled See attached ed sheets. Sloring See attached sheets. Be attached sheets.	sheets. em to Special, Se	
Waste Disposa Precautions to Other Precauti Section VI Respiratory Precautions	is Method See Be Taken in Hand See att II — Control M rotection (Specify T) Local Exhaust meet pub) Mechanical (Ge	attach attach leasure: (PP) Se Provilished eneral)	de Handling and Use sased or Spilled See attached ed sheets. Sloring See attached sheets. Be attached sheets.	sheets. em to Special, Se	e attached sheets. Yee must wear safety gogglacontact with this substan

Material Safety Data Sheet
May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration (Non-Mandatory Form)

Form Approved OMB No. 1218-0072



IDENTITY (As Used on Label and List) TIN	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 I					
Manufacturer's Name NA (a base metal)	Emergency Telephone Number				
Address (Number, Street, City, State, and ZIP Code) NA	Telephone Number for Information NA				
	Date Prepared .				
	Signature of Preparer (optional)				
Section II — Hazardous Ingredients/Identity Information	tion				
Hazardous Components (Specific Chemical Identity; Common Name(Other Limits · (s)) OSHA PEL ACGIH TLV Recommended % (optional				
Tin, other contaminants: None	NA 100				
Exposure Limits:					
Tin: 2 MG/M3 OSHA TWA					
2 MG/M3 ACGIH TWA					
	,				
Section III — Physical/Chemical Characteristics					
Boiling Point 4100 F (2260 C)	Specific Gravity (H ₂ O = 1) 7.3				
Vapor Pressure (mm Hg.) 1 MMHG @ 1610 C	Melting Point 449 F (232 C)				
Vapor Density (AIR = 1) NA	Evaporation Rate (Butyl Acetate = 1) NA				
Solubility in Water Insoluble - Solvent solubility: Hyd	rocholoric acid, sulfuric acid, alkali				
Appearance and Odor Odorless, Silver-white, Lustrous, Soft M	etal.				
Section IV — Fire and Explosion Hazard Data					
Flash Point (Method Used) See attached sheets	Flammable Umits See attached sheets LEL UEL				
Extinguishing Media See attached sheets					
Special Fire Fighting Procedures See attached sheets					
Unusual Fire and Explosion Hazards See attached she	ets				

THE PROPERTY OF THE PARTY OF TH	Reactivity Data		· · · · · · · · · · · · · · · · · · ·
Stability	Unstable		Conditions to Avoid See attached sheets
	Stable	ХX	Stable under normal tempatures and pressures.
incompatibility (M			See attached sheets
Hazardous Decom Thermal de	position or Byprodu	its may	give off stannic oxide.
Hazardous Polymerization	May Occur		Conditions to Avoid Avoid dispersion of dust in air. Finely divided particals, dust, or fumes may be a slightly fire hazard.
	Will Not Occur	хx	None known.
Section VI —	Health Hazard	Data	
Route(s) of Entry:	See Inhal	tach	ned sheets Skin? Ingestion?
Health Hazards (A	cute and Chronic)	Sec	attached sheets
And the second s		Polit dericatories agus	
Carcinogenicity: According t	o the 4th ar	nual	. report on carcinogens, 1985 U.S. Public Health Service, tin
is not list	ed as carcin		
Signs and Sympton	ms of Exposure	ee a	ttached sheets
Medical Conditions Generally Aggravat		See	attached sheets
and the second s			
Emergency and Fire	st Aid Procedures	S	ee attached sheets
Section VII —	Precautions fo	r Safe	Handling and Use
Steps to Be Taken	in Case Material Is	Releas	ed or Spilled See attached isheets
	The second secon	Saller or Cover Accesso	
Waste Disposal Me	^{lhod} See at	tach	ed sheets
Precautions to Be 1	Taken in Handling a	nd Sto	ring See attached sheets
Other Precautions	See att	ache	d sheets
Section VIII -		res	
Respiratory Protecti	on (Specify Type)	Se	e attached sheets
Ventilation i	ocal Exhaust Pro ation to me	vide et p	general dilution vent- Special, See attached sheets
	lechanical (General)	S	ee attached sheets Other ;See attached sheets
Protective Gloves 1	lot required	but	recommended. Eye Protection Employee must wear splash-proof & dust-resistant safety goggles.
Other Protective Ck Protective o	othing or Equipment	Yarı	
Work/Hygienic Prac	tices		uired. Avoid repeated or prolonged contact with substance.