

# MATERIAL SAFETY DATA SHEET

## I. MATERIAL IDENTIFICATION

	MATERIAL USAGE: LEAD SOLDER
	TRADE NAME: 60/40 Sn Pb ROSIN CORE LEAD SOLDER
	CHEMICAL NAME: TIN/LEAD ALLOY
	RSR PART NO : 060700, 060701, 060702,060703 and 060710.
CHEMICAL FAMILY: Metal Alloy	FORMULA: Sn/Pb 60/40
MOLECULAR WEIGHT:N/A	ISSUED DATE: 9 / APR. / 2018
	REVISED DATE: 26 / MAR. / 2019

## II. HAZARDOUS INGREDIENTS AND EXPOSURE

Material or Component:	CAS Number	% Weight	EXPOSURE LIMITS		
			Dust Fume (mg/m <sup>3</sup> )	PEL (OSHA) 8-hr TWA (mg/m <sup>3</sup> )	ACGIH STEL (mg/m <sup>3</sup> )
Tin	7440-31-5	60	N/A	2	4
Lead	7439-92-1	40	N/A	0.15	N/A
Core		0.8	N/A	N/A	..N/A

## III. PHYSICAL DATA

PHYSICAL STATE (at normal cond.) Gas X Liquid X Solid V	APPERANCE AND ODER : Silver-grey metal, odorless, various shapes and sizes.	OTHERS : N/A
VAPOR DENSITY (Air=1) : N/A	SOLUBILITYIN WATER (%by weight) : N/A	PH : N/A

VAPOR PRESSURE ( mmHg ) at 20°C : N/A	%VOLATILE BY VOLUME ( at 20°C ): N/A	DENSITY : N/A
SPECIFIC GRAVITY ( H <sub>2</sub> O = 1 ) : ( metal ) 809	MELTING POINT ( °C ) <b>183-190°C</b>	BOILING POINT ( °C ) : N/A

#### IV. FIRE AND EXPLOSION DATA

INFLAMMABILITY : Yes X No V	If so, in which conditions : N/A	Flash Point ( °C ): Open : N/A    Close : N/A
FIREFIGHTING PROCEDURES : Use NIOSH/MSHA self-contained breathing apparatus and full protective clothing if involved in fire.		
EXTINGUISHING AGENTS : Use dry chemical, carbon dioxide, water spray or foam.		
UNUSUAL FIRE AND EXPLOSION HAZARDS :    N/A		

#### V. REACTIVITY DATA

STABILITY : Yes V No X	If no, in which conditions ?
INCOMPATIBILITY : Yes V No X	If no ,in which ones ? ( Material to avoid )  Contact with oxidizers acids or hydrogen peroxide may cause a reaction.
<b>HAZARDOUS DECOMPOSITION PRODUCTS : Under reducing conditions or in the Presence of nascent hydrogen, highly toxic stibine gas may be evolved. Over melting point Fumes may be evolved.</b>	
<b>HAZARDOUS POLYMERIZATION :</b> May occur? Yes X No V	<b>If so, in which conditions ?</b>  <b>N/A</b>

#### VI. FIRST AID PROCEDURES

INHALATION : Remove from exposure ; Place individual under care of physician.
SKIN/EYE : No visual appearance-wash skin carefully with soap and water. May cause irritation-rinse thoroughly with water. Irritation persists, seek medical attention.
INGESTION : Induce vomiting in conscious individual and call a physician. Give two to three glasses of water.

## VII. PHYSIOLOGICAL EFFECTS

ROUTES OF EXPOSURE :

Inhalation : Short Term V Long Term V Skin : Contact  Absorption  Eye V Ingestion V

INHALATION : Inhalation of fume generated from this product may cause irritation to the respiratory system, Inhalation and/or ingestion of fume may cause headache, nausea muscular pain and possible liver damage. Workers should be aware of potential generation of stibine gas if in contact with acid.

SKIN/EYE : Possible mechanical irritation of skin.

INGESTION : Prolonged skin contact with fume or dust may cause skin dermatitis. Over exposure by inhalation and / or ingestion may cause fatigue, anemia, possible central nervous system damage, nasal inflammation and possible kidney dysfunction.

POSSIBLE EFFECTS :

Carcinogenic  Reproduction  Teratogenic  Mutagenic

## VIII. PRECAUTIONS

PROTECTIVE CLOTHING AND EQUIPMENT

RESPIRATORY PROTECTION : NIOSH/MSHA respirator for toxic dust, if over limit.

EYES AND FACE : Safety glasses for operation generating flying particles.

HANDS, ARM & BODY : Gloves and goggles

OTHER EQUIPMENT : Approved mask

ENGINEERING CONTROLS ( e.g. : ventilation ,closed process ) : Local exhaust ventilation is required for melting, grinding, screening, soldering or other operations where excessive exposure may occur.

SPILL AND PROCEDURES : A clean-up procedure which minimizes exposure is required

## IX. DISPOSAL AND ENVIRONMENTL

Vacuuming is preferred. Place all material in closed containers. Do not use compress air for cleaning. Use approved respiratory protection if possibility of dust/fume exposure exists.

HANDLING AND STORING : Use of approved respirators for application where adequate ventilation cannot be provided.

HAZARDOUS : Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If so, reportable quantity : N/A
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WASTE DISPOSAL METHODS : Material should be returned to process or salvage.  
Dispose of only if in accordance with applicable regulations.

RCRA STATUS OF UNUSED MATERIAL : N/A

## X. REFERENCE

PERMISSIBLE CONCENTRATION,HAZARD INFORMATION,GENERAL,ETC. :

OSHA regulation 29 CFR 1910.1000 and 1910.1025 documentation of the threshold limit value  
4<sup>th</sup> edition NFPA fire protection guide on hazardous material registry of toxic effects on chemical  
substances ( NIOSH ) 1980.

Regulation respecting the quality of the work environment

## XI. ADDITIONAL INFORMATION

Avoid eating and smoking, or drinking in work areas. Good personal hygiene is essential.

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