

\*SECTION I - Material Identity\*

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Item Name  
Part Number/Trade Name 50/50 TIN LEAD SOLDER  
National Stock Number 3439000860204  
CAGE Code 27911  
Part Number Indicator A  
MSDS Number 90444  
HAZ Code B

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\*SECTION II - Manufacturer's Information\*

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Manufacturer Name J.W. HARRIS CO., INC  
P.O. Box N/K  
Street 10930 DEERFIELD ROAD  
City CINCINNATI  
State OH  
Zip Code 45242  
Emergency Phone (513) 891-2000  
Information Phone (513) 891-2000

\*MSDS Preparer's Information\*

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Street 10930 DEERFIELD ROAD  
City CINCINNATI  
State OH  
Zip Code 45242  
Date MSDS Prepared/Revised 01NOV85  
Date of Technical Review 02FEB89  
Active Indicator Y

\*Alternate Vendors\*

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Vendor #5 CAGE BCYFK

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\*SECTION III - Physical/Chemical Characteristics\*

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Hazard Storage Compatibility Code N1-L1  
Appearance/Odor WIRE, GREY TO SILVER IN COLOR  
Boiling Point N/4

Melting Point	N/R	
Vapor Pressure	N/R	
Vapor Density	N/R	
Specific Gravity	11.37	
Decomposition Temperature		N/R
Evaporation Rate	N/R	
Solubility in Water	N/R	
Chemical pH	N/R	
Corrosion Rate	N/R	
Container Pressure Code	4	
Temperature Code	8	
Product State Code	U	

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\*SECTION IV - Fire and Explosion Hazard Data\*  
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Flash Point Method	UNK	
Lower Explosion Limit	N/R	
Upper Explosion Limit	N/R	
Extinguishing Media	N/R	
Special Fire Fighting Procedures		N/R
Unusual Fire/Explosion Hazards		NONFLAMMABLE. OPEN FLAME & SPARKS CAN IGNITE COMBUSTIBLES

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\*SECTION V - Reactivity Data\*  
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Stability	YES	
Stability Conditions to Avoid	N/K	
Materials to Avoid	N/K	
Hazardous Decomposition Products		OXIDES OF TIN, LEAD, ZINC CHLORIDE, H2S GAS
Hazardous Polymerization	NO	
Polymerization Conditions to Avoid		N/K
LD50 - LD50 Mixture	N/R	

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SECTION VI - Health Hazard Data  
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Route of Entry: Skin	NO	
Route of Entry: Ingestion	YES	
Route of Entry: Inhalation	YES	
Health Hazards - Acute and Chronic		INHALATION: METAL FUME FEVER,

PULMONARY EDEMA, HEADACHE, NAUSEA, DIZZINESS, BODY ACHES, & ANEMIA.

SHORT TERM EXPOSURE CAUSES IRRITATION OF THE NOSE, THROAT & SKIN.

POSSIBLE LEAD DUST INGESTION FROM SMOKING/EATING AFTER HANDLING LEAD

BEARING SOLDER

Carcinogenity: NTP NO

Carcinogenity: IARC NO

Carcinogenity: OSHA NO

Explanation of Carcinogenity NONE

Symptoms of Overexposure INHALATION: METAL FUME FEVER, PULMONARY EDEMA, HEADACHE, DIZZINESS, BODY ACHES, & ANEMIA. IRRITATION

OF THE NOSE, THROAT & SKIN. PROLONGED INHALATION EXPOSURE MAY CAUSE LUNG

OR KIDNEY DAMAGE

Medical Cond. Aggravated by Exposure INDIVIDUALS WITH IMPAIRED

PULMONARY FUNCTIONS OR ILLNESS MAY HAVE SYMPTOMS

EXACERBATED BY FUME

IRRITANTS

Emergency/First Aid Procedures INHALATION: REMOVE FROM DUST OR FUME EXPOSURE. IF BREATHING HAS STOPPED PERFORM ARTIFICIAL RESPIRATION. GET MEDICAL AID IMMEDIATELY

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#### SECTION VII - Precautions for Safe Handling and Use

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Steps if Material Released/Spilled N/R

Neutralizing Agent N/R

Waste Disposal Method N/R

Handling and Storage Precautions H HANDS THOROUGHLY BEFORE SMOKING OR EATING AFTER USING LEAD BEARING SOLDER. TRAIN EMPLOYEES TO

KEEP HIS HEAD OUT OF THE FUMES. AC

Other Precautions ACTUAL EXPOSURE SHOULD BE DETERMINED BY MONITORING THE FUME IN THE OPERATOR'S BREATHING ZONE. ONE

RECOMMENDED WAY TO DETERMINE THE COMPOSITION/QTY OF FUMES/GASES TO WHICH

WORKERS ARE EXPOSED IS TO TAKE AN AIR SAMPLE IN THE BREATHING ZONE

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SECTION VIII - Control Measures

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Respiratory Protection	RESPIRATOR WHEN SOLDERING IN CONFINED SPACE, IF >TLV
Ventilation	PROVIDE LOCAL EXHAUST VENTILATION TO KEEP THE FUMES & GASES
Protective Gloves	WELDER'S
Eye Protection	HELMET, FACESHIELD W/FILTER LENS
Other Protective Equipment	PROVIDE PROTECTION SCREENS, FLASH GOGGLES. ARM PROTECTORS, APRONS, HAT, SHOULDER PROTECTION
Work Hygienic Practices	WASH HANDS THOROUGHLY BEFORE SMOKING OR EATING AFTER USING LEAD BEARING SOLDERS
Supplemental Health/Safety Data	SOLDER WIRE IS A NONHAZARDOUS SOLID AT AMBIENT TEMPERATURE. HAZARDS MAY RESULT FROM FUME GENERATED DURING SOLDERING
Disposal Code	O

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SECTION IX - Label Data

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Protect Eye	NO
Protect Skin	NO
Protect Respiratory	NO
Chronic Indicator	UNKNOWN
Contact Code	UNKNOWN
Fire Code	UNKNOWN
Health Code	UNKNOWN
React Code	UNKNOWN

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SECTION X - Transportation Data

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Container Quantity	1
Unit of Measure	LB

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\*SECTION XI - Site Specific/Reporting Information\*

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Volatile Organic Compounds (P/G)	0
Volatile Organic Compounds (G/L)	0

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\*SECTION XII - Ingredients/Identity Information\*  
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Ingredient #		01
Ingredient Name		TIN
CAS Number		7440315
NIOSH Number		XP7320000
Proprietary	NO	
Percent	50	
OSHA PEL		2 MG/M3
ACGIH TLV		2 MG/M3; 9192
Recommended Limit		N/K
Ingredient #		02
Ingredient Name		(PBCPD) LEAD (SARA III)
CAS Number		7439921
NIOSH Number		OF7525000
Proprietary	NO	
Percent	50	
OSHA PEL		0.05 MG/M3;1910.1025
ACGIH TLV		0.15 MG/M3;DUST 9192
Recommended Limit		N/K
Ingredient #		03
Ingredient Name		ROSIN (CORE)
CAS Number		1003
NIOSH Number		1000025RS
Proprietary	NO	
Percent	3	
OSHA PEL		N/K
ACGIH TLV		N/K
Recommended Limit		N/K