

# 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

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**IDENTITY: Lead Free Solder**  
Included in EI-20K, MT-76K & 35232

**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.

<b>MANUFACTURER'S NAME</b>	Master Appliance Corp.	<b>EMERGENCY TELEPHONE NO.</b>	1-800-535-5053 (Infotrac)
<b>ADDRESS</b>	2420 18 <sup>TH</sup> Street Racine WI 53403	<b>TELEPHONE NO. FOR INFORMATION</b>	1-262-633-7791
		<b>DATE PREPARED</b>	January 17, 2014
		<b>SIGNATURE OF PREPARER</b>	(optional)

## SECTION II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

### HAZARDOUS COMPONENTS

(Chemical Identity: Common Name(s))	US-NIOSH RTECS #	OSHA AL	OSHA PEL	ACGIH TLV	WT. %
Tin (CAS 7440-31-5)	XP7320000	NE	2.0mg/m3	2.0mg/m3	Balance
Copper (CAS 7440-50-8)	GL5325000	NE	1.0mg/m3	1.0mg/mg3	4.95
(dust)					
(fume)			0.1mg/m3	0.2 mg/m3	
Selenium (CAS 7782-49-2)	VS7700000	NE	0.2 mg/m3	0.2 mg/m3	0.05

NE=None Established      AL=Action Level      PEL=Permissible Exposure Limit      TLV=Threshold Limit Value

## SECTION III. SHIPPING INFORMATION

<b>PROPER SHIPPING NAME</b>	This product is not regulated by the USDOT as shipped
<b>CLASS AND DIVISION NUMBER</b>	Not Applicable
<b>UN NUMBER</b>	Not Applicable
<b>REQUIRED LABELS</b>	Not Applicable
<b>PACKING GROUP</b>	Not Applicable

## SECTION IV. PHYSICAL/CHEMICAL CHARACTERISTICS

<b>BOILING POINT</b>	<4000°F	<b>SPECIFIC GRAVITY (H<sub>2</sub>O = 1)</b>	7.39
<b>VAPOR PRESSURE</b>	Not Applicable	<b>MELTING POINT</b>	410°F - 430°F
<b>VAPOR DENSITY</b>	Not Applicable	<b>EVAPORATION RATE (Butyl Acetate = 1)</b>	Not Applicable
<b>SOLUBILITY IN WATER</b>	Insoluble	<b>PH</b>	Not Applicable
<b>APPEARANCE AND ODOR</b>	Solid – silver to silver gray metallic metal, Odorless		

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## SECTION V. FIRE AND EXPLOSION HAZARD DATA

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<b>FLAMMABLE LIMITS</b>	<b>LEL:</b> Not Applicable	<b>UEL:</b> Not Applicable
<b>FLASH POINT (METHOD USED)</b>	Non-Flammable	
<b>EXTINGUISHING MEDIA</b>	Use media appropriate for surrounding fire. Do not use water on fire where molten metal is present.	
<b>SPECIAL FIRE FIGHTING PROCEDURES</b>	Firefighters should wear a NIOSH/MSHA-approved self-contained breathing apparatus (SCBA) operated in positive pressure mode and full turnout gear or bunker gear.	
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS</b>	The solid metal form is not a fire hazard. However, dust generated from processing operations may present a moderate fire or explosion hazard.	

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## SECTION VI. REACTIVITY DATA

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<b>STABILITY</b>	<b>Stable:</b> Yes
<b>CONDITIONS TO AVOID</b>	Not Applicable
<b>INCOMPATIBILITY (Materials to Avoid)</b>	Chlorine, Turpentine, Magnesium, Acetylene Gas
<b>HAZARDOUS DECOMPOSITION OR BYPRODUCTS</b>	At temperatures above the melting point metal oxide fumes may be evolved.
<b>HAZARDOUS POLYMERIZATION</b>	Will not occur
<b>CONDITIONS TO AVOID</b>	Not Applicable

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## SECTION VII. HEALTH HAZARD DATA

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<b>ROUTE(S) OF ENTRY</b>	<b>Inhalation:</b> Yes	<b>Skin:</b> Yes	<b>Ingestion:</b> Yes
<b>HEALTH HAZARDS (Acute and Chronic)</b>	Exposure to the solid form of this product presents few health hazards in itself. Normal handling or processing of this material may result in the generation of tin and copper dusts and/or fumes, which may present a health hazard.		
<b>CARCINOGENICITY</b>	<b>NTP:</b> No	<b>IARC MONOGRAPHS:</b> 2B	<b>OSHA REGULATED:</b> No
<b>SIGNS AND SYMPTOMS OF EXPOSURE</b>	Chronic overexposure to tin can result in benign pneumoconiosis (stannosis). This form of pneumoconiosis produces progressive x-ray changes of the lungs as long as exposure exists, but there is no distinct fibrosis, no evidence of disability and no special complicating factors. Acute overexposure to tin can cause irritation of the eyes, skin, mucous membranes and respiratory system. Membrane acute overexposure to copper dusts or fumes can cause metal fume fever with flu-like symptoms such as metal taste, dry throat, coughing, fever and chills, tight chest, dyspnea, headache, blurred vision, back pain, nausea, vomiting, fatigue,. Symptoms usually disappear within 24 hours. Copper may cause skin and hair discoloration. Inhalation of copper dusts may cause changes in the gums and mucous lining of the mouth which is generally attributable to localized tissue effect rather than general toxicity.		
<b>MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE</b>	Pre-existing conditions of the lungs. Wilson's Disease (Genetic Trait)		

## EMERGENCY AND FIRST AID PROCEDURES

**Skin:** Normal hygiene procedure – wash with soap and water. If rash develops get medical attention.  
**Eyes:** Flush well with running water to remove particulate. If irritation persists get medical attention.

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## SECTION VIII. PRECAUTIONS FOR SAFE HANDLING AND USE

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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED** 1. Material in dust form, minimize exposure. Clean up using dustless methods (i.e. vacuum). Do not use compressed air. 2. Place in closed labeled containers for recycling or disposal. 3. Keep out of waterways. Note: cleanup personnel should wear protective clothing and respiratory protection where significant dust/fume exposure exists.

**WASTE DISPOSAL METHOD** May have value on a recycled basis. If disposed of, dispose of in a permitted disposal site in accordance with all federal, state, and local disposal or discharge regulations.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING** Practice good housekeeping procedures to prevent dust accumulations. Keep material dry. Avoid storage near incompatible materials (see section VI). Keep product away from children and their environment.

**OTHER PRECAUTIONS** Special attention is drawn to the requirements of the U.S. OSHA Respirator (1910.134) should airborne exposures exceed the U.S. OSHA PEL.

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## SECTION IX. CONTROL MEASURES

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<b>RESPIRATORY PROTECTION (Specific Type)</b>	Respiratory protection is required where airborne exposures exceed U.S. OSHA/ACGIH permissible air concentrations.
<b>VENTILATION</b>	Adequate
<b>LOCAL EXHAUST</b>	For small enclosed work areas
<b>MECHANICAL (General)</b>	Adequate for storage
<b>PROTECTIVE GLOVES</b>	Not required for normal handling
<b>EYE PROTECTION</b>	Safety Glasses
<b>OTHER PROTECTIVE CLOTHING OR EQUIPMENT</b>	Not required for normal handling
<b>WORK/HYGIENIC PRACTICES</b>	N/A

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## SECTION X. NFPA HAZARD CODES – HMIS RATING

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HEALTH:

FIRE:

REACTIVITY: