

# Material Safety Data Sheet One Step $\square$ LF (Lead Free No Clean)

## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING.

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1.1	Identification of substance (as per label): Other means of Identification:	Lead Free One Step Desoldering Braid
1.2	Company Name: Easy Braid Co. Contact Name: Jim Strempe Full Address: 11543 K-tel Drive Minneapolis, MN 55343 USA  Telephone Number: 952-929-3040 Fax Number: 952-929-2765 Emergency Number: 952-929-3040	Part Numbers: LF-A-5AS, LF-A-10AS, LF-B-5AS, LF-B-10AS, LF-C-5AS, LF-C-10AS, LF-D-5AS, LF-D-10AS, LF-E-5AS, LF-E-10AS

## 2. COMPOSITION / IDENTIFICATION ON INGREDIENTS

CAS NUMBER	INGREDIENTS	%	SYMBOLS	
7440-50-8	Copper Metal	99.9%		RoHS compliance limit: 0.10%
	Lead	<.0001%		
	Cadmium	<0.00005%		
	Chromium	<0.00005%		RoHS compliance limit: 0.01%
	Tin			RoHS compliance limit: 0.10%
8050-09-7	Lead	0.0030-0.0035%		RoHS compliance limit: 0.10%
	Cadmium	0.0005-0.0010%		RoHS compliance limit: 0.01%
8050-09-7	Modified Rosin	0.1%		

2.1	Substances presenting a health hazard:	The 0.1% Rosin may cause allergic reactions: does not contain hazardous ingredients.
2.2	Exposure Limit Values:	Copper - <span style="float: right;">ACGIH TLV</span>
2.3	Is substance is confidential - indicate chemical nature to ensure safe handling	-fume <span style="float: right;">0.1mg/m3</span> -dust <span style="float: right;">1.0mg/m3</span>

## 3. HAZARDS IDENTIFICATION

3.1	Critical Hazards:	HMIS Hazard Rating: 0 = insignificant 1 = slight 2 = moderate 3 = high 4 = extreme
3.2	Critical Hazards to Man & Environment:  Adverse Human Health Effects and Symptoms:	Health = 1 Flammability = 0 Reactivity = 0 Rosin flux may cause an allergic reaction, resulting in a skin rash. Clean hands after use.

## 4. FIRST AID MEASURE

4.1	<u>Skin Contact:</u> -First Aid: -Symptoms: -Effects: -Delayed Effects: -Medical Attention Needed: <u>Eye Contact:</u> -First Aid: -Symptoms: -Effects: -Delayed Effects: -Professional Attention Needed: <u>Inhalation:</u> -First Aid: -Symptoms: -Effects: -Delayed Effects: -Professional Attention Needed: <u>Ingestion:</u> -First Aid: -Symptoms: -Effects: -Delayed Effects: -Professional Attention Needed:	Flush skin with copious amounts of water.  Rash.  Remove metal fragments and flush eyes with water.  Remove to fresh air. If breathing has stopped, administer CPR.  Induce vomiting.  Wire strands could cause internal digestive tract bleeding. Induce vomiting.
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## 5. FIRE FIGHTING MEASURES

5.1	Suitable Extinguishing Media:	Powder Dolomite, Sodium Chloride or Graphite.
5.2	Unsuitable Extinguishing Media:	Do not use water.
5.3	Exposure Hazards:	Copper reacts violently with C <sub>2</sub> H <sub>2</sub> , NH <sub>4</sub> N <sub>3</sub> , Bromates, Chlorates, Iodates, C <sub>12</sub> , C <sub>1</sub> F <sub>2</sub> , Ethylene Oxide, F <sub>2</sub> , H <sub>2</sub> O <sub>2</sub> , Hydrazine monoitrate, Hydrazoic acid, H <sub>2</sub> S, K <sub>2</sub> O <sub>2</sub> , NaN <sub>3</sub> , Na <sub>2</sub> O <sub>2</sub> , CUN <sub>3</sub> , S.
5.4	Combustion Products: -Resulting Gases:	Carbon Monoxide, Aliphatic Aldehydes, and Acids
5.5	Protective Equipment For Firefighters:	Not Needed

## 6. ACCIDENTAL RELEASE MEASURES

6.1	<u>Personal Precautions:</u> -Ignition sources? -Provision for sufficient ventilation? -Control of dust? -Prevention of skin contact? -Prevention of eye contact?	When subjected to temperatures over 180° F, flux fumes should be vented. See Section 8.1. Vacuum or sweep up and dispose of as a non-cumbustable metal. Gloves not normally required. When clipping short lengths, protective eyewear is recommended.
6.2	Environmental Precautions:	
6.3	Methods for Cleaning Up:	
6.4	Materials not to be Used for Cleaning Up:	Vacuum or sweep up and dispose of as a noncombustible solid. See above. See section 5, of this document.

## 7. HANDLING & STORAGE

7.1	Handling -General Rules -Technical Precautions for Safe Handling -Measures necessary to prevent airborne levels of chemical being generated as a result of handling.	Store in cool, dry environment for functional purposes. None required. If product is exposed to temperatures are above 180° F, use local ventilation.
7.2	Recommended Storage Conditions -List incompatible materials -Quantity Limits for storage -Special Requirements for proper storage of chemical	See sections 5 & 2 of this document.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1	System Design (e.g. Fume Hoods, Ventilated Cabinets, Enclosure)	General mechanical or local hood. Ventilation is recommended for applications where the product will exceed 180° F.
8.2	Control Parameters -Limit values or biological standards:	
8.3	Recommended Monitoring Procedures:	See Section 5, of this document.
8.4	Personal Protection -Respiratory Protection: -Hand Protection: -Eye Protection: -Skin Protection:	Use local or general ventilation away from the operator if the product temperature is exposed to 180° F+. Gloves may be used if resin is a skin irritant. Eye protection should be worn when clipping short lengths. See hand protection.
8.5	CEN standards	Carcinogens < 0.1%

9.1	Appearance:	Copper metallic braid with fine crystalline resin layer.
9.2	Odor:	None.
9.3	pH:	N/A
9.4	Boiling Point:	1981 degrees F
9.5	Melting Point:	1949 degrees F
9.6	Flash Point:	No flash
9.7	Flammability (solid gas):	None
9.8	Autoflammability:	None
9.9	Explosive Properties:	None
9.10	Oxidizing Properties:	Copper can oxidize if prolonged exposure in moist conditions.
9.11	Vapor Pressure:	N/A
9.12	Relative Density:	N/A
9.13	Solubility:	
	-Water Solubility	Negligible
	-Fat Solubility	Unknown
9.14	Partition coefficient, n-octanol/water:	
9.15	Other Data:	
	-Safety Parameters	N/A
	-Vapor Density	N/A
	-Miscibility	N/A
	-Evaporation rate	N/A
	-Conductivity	Copper is very conductive.
	-Viscosity	A solid

## 10. STABILITY AND REACTIVITY

10.1	Stability	Stable
10.2	Conditions to avoid	
	-Effects	
10.3	Materials to Avoid	
	-Effects	
10.4	Hazardous Decomposition products	
	-the need for and the presence of stabilizers:	
	-hazardous exothermic reaction:	
	-change in appearance in the substance:	
	-hazardous products formed upon contact with water:	
	-possible degradation to unstable products:	Hazardous environment can occur in the presence of excessive heat and/or chemicals as listed in Section 5, this document.

## 11. TOXICOLOGICAL INFORMATION

11.1	Skin Exposure:	
	-Symptoms:	
	-Immediate Effects:	Possible allergic rash reaction. See Section 4, this document.
	-Delayed Effects:	
	-Chronic Effects:	
	-Special Health Effects:	
11.2	Eye Contact:	
	-Symptoms:	
	-Immediate Effects:	Possible danger of metal fragments. See Section 4, this document.
	-Delayed Effects:	
	-Chronic Effects:	
	-Special Health Effects:	
11.3	Inhalation:	
	-Symptoms:	
	-Immediate Effects:	
	-Delayed Effects:	
	-Chronic Effects:	
	-Special Health Effects:	If product is exposed to temperatures in excess of 180° F, local ventilation must be used.
11.4	Ingestion:	
	-Symptoms:	
	-Immediate Effects:	May be moderately irritating to stomach lining. Induce vomiting if conscious.
	-Delayed Effects:	
	-Chronic Effects:	
	-Special Health Effects:	

12.1	Mobility -distribution to environmental compartments -surface tension -absorption / desorption -physical & chemical properties	Not applicable.
12.2	Degradability -biotic and abiotic degradation -aerobic and anaerobic degradation -persistence	Not applicable.
12.3	Accumulation -bioaccumulation potential -biomagnification	Not applicable.
12.4	Short and Long Term Effects on: - <i>Ecotoxicity</i> -aquatic organisms -soil organisms -plants and terrestrial animals - <i>Other Adverse Effects</i> -ozone depletion potential -photochemical ozone creation potential -effects on waste water treatment plants	Not applicable.

### 13. DISPOSAL CONSIDERATIONS

13.1	Safe Handling	Consult with local regulatory bodies to metallic solid waste disposal
13.2	Methods of Disposal	

### 14. TRANSPORT INFORMATION

14.1	UN Number:	Harmonized Tariff Code: #7413.00.1000
14.2	Road & Sea Freight Classification:	Copper wire coated with resin flux
14.3	Substance Classification Number:	
14.4	Class:	
14.5	Packing Group:	Validated license # / General license symbol: "NLR"
14.6	Proper Shipping Name: PGR (if applicable)	
14.7	ADR/RID CLASSIFICATION: Class: Item Number:	
14.8	ICAO/IATA CLASSIFICATION: Class: Sub-Risk: Packing Group: Proper Shipping Name:	

### 15. REGULATORY INFORMATION

15.1	Precautionary Label Information:	This product does not require warning labels due to Hazards Classification as designated in Section 3. Risk Phrases: R36/37/38 Safety Phrases: S14 (per section 5), S22/39, S43 (per section 5)
15.2	Symbols:	
15.3	Risk Phrases:	
15.4	Safety Phrases:	

### 16. OTHER INFORMATION

16.1	Regulatory Information:	
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