Safety Data Sheet (SDS) One Step • LF (Lead Free No Clean)

$1. \ \ IDENTIFICATION \ OF \ THE \ SUBSTANCE \ / \ PREPARATION \ AND \ OF \ THE \ COMPANY \ / \ UNDERTAKING.$

| 1.1 | | . 1 | Lead Free One Step Desoldering Braid |
|-----|---------------------|---------------------------|---|
| | Other means of Iden | tification: | |
| 1.2 | Company Name: | Easy Braid Co. | Part Numbers: LF-A-5AS, LF-A-10AS, LF-A-25, LF-A-100, LF-B- |
| | Contact Name: | Jim Strempke | 5AS, LF-B-10AS, LF-B-25, LF-B-100, LF-C-5AS, LF-C-10AS, LF-C- |
| | Full Address: | 11543 K-tel Drive | 25, LF-C-100, LF-D-5AS, LF-D-10AS, LF-D-25, LF-D-100, LF-E- |
| | | Minneapolis, MN 55343 USA | 5AS, LF-E-10AS LF-E-25, LF-E-100 |
| | Telephone Number: | 952-929-3040 | |
| | Fax Number: | 952-929-2765 | |
| | Emergency Number: | : 952-929-3040 | |
| 1.3 | Material uses | | Electronic Circuit Board Repair- Solder Removal |

2. HAZARDS IDENTIFICATION

| 2. HAZ | 2. HAZARDS IDENTIFICATION | | | |
|--------|--|--|--|--|
| 2.1 | Critical Hazards: | HMIS Hazard Rating: 0 = insignificant | | |
| | | 1 = slight | | |
| | | 2 = moderate | | |
| | | 3 = high | | |
| | | 4 = extreme | | |
| 2.2 | Critical Hazards to Man & Environment: | Health = 1 | | |
| | | Flammability $= 0$ | | |
| | | Reactivity = 0 | | |
| | Adverse Human Health Effects and Symptoms: | Rosin flux may cause an allergic reaction, resulting in a skin rash. | | |
| | | Clean hands after use. | | |
| 2.3 | Hazard Classification | Skin Sensitizer, Cat 1. | | |
| 2.4 | Single Word | Warning | | |
| 2.5 | Pictogram | | | |
| 2.6 | Hazard Statements | May cause allergic skin reaction | | |
| 2.7 | Precautionary Statement | Prevention: | | |
| | | Avoid breathing/dust/fume/gas/mist/vapours/spray | | |
| | | Contaminated work clothing should not be allowed out of the | | |
| | | workplace | | |
| | | Wear protective gloves | | |
| | | | | |
| | | Response: | | |
| | | IF ON SKIN: Wash with pleny of water | | |
| | | If skin irritation or rash occurs: Get medical advice/attention | | |
| | | Take off contaminated clothing and wash it before ruse | | |
| | | Review section 4 for additional response | | |
| | | Diamosalı | | |
| | | Disposal: Dispose of contents/container in accordance with logal regulations | | |
| | | Dispose of contents/container in accordance with logal regulations | | |
| L | <u>I</u> | | | |

3. COMPOSITION / IDENTIFICATION ON INGREDIENTS

| 3. COM OBITION IDENTIFICATION ON INGREDIENTS | | | | |
|--|----------------|----------------|---------|------------------------------|
| CAS | INGREDIENTS | % | SYMBOLS | |
| NUMBER | | | | |
| 7440-50-8 | Copper Metal | 99.9% | | |
| | Lead | <.0001% | | RoHS compliance limit: 0.10% |
| | Cadmium | <0.00005% | | RoHS compliance limit: 0.01% |
| | Chromium | <0.00005% | | RoHS compliance limit: 0.10% |
| | Tin | | | |
| | Lead | 0.0030-0.0035% | | RoHS compliance limit: 0.10% |
| | Cadimium | 0.0005-0.0010% | | RoHS compliance limit: 0.01% |
| 8050-09-7 | Modified Rosin | 0.1% | | |

| 3.1 | Substances presenting a health hazard: | The 0.1% Rosin may cause | allergic reactions: does not contain |
|-----|--|--------------------------|--------------------------------------|
| | | hazardous ingredients. | |
| 3.2 | Exposure Limit Values: | Copper - | ACGIH |
| | | | TLV |
| 3.3 | Is substance is confidential - indicate chemical nature to | -fume | 0.1mg/m3 |
| | ensure safe handling | -dust | 1.0mg/m3 |

4. FIRST AID MEASURE

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

5. FIRE FIGHTING MEASURES

| J. PIKI | 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 C2H2, NH4N03, Bromates, Chlorates, | |
| | | Iodates, C12, C1F2, Ethylene Oxide, F2, H2O2, Hydrazine monoitrate, | |
| | | Hydrazoic acid, H2S, K202, NaN3, Na202, CUN03, S. | |
| | | | |
| 5.4 | Combustion Products: | Carbon Monoxide, Aliphatic Aldehydes, and Acids | |
| | -Resulting Gases: | | |
| 5.5 | Protective Equipment For Firefighters: | Not Needed | |

6. ACCIDENTAL RELEASE MEASURES

| 6.1 | Personal Precautions: | |
|-----|---|---|
| | -Ignition sources? | When subjected to temperatures over 180° F, flux fumes should be |
| | -Provision for sufficient ventilation? | vented. |
| | -Control of dust? | See Section 8.1. |
| | -Prevention of skin contact? | Vacuum or sweep up and dispose of as a non-cumbustable metal. |
| | -Prevention of eye contact? | Gloves not normally required. When clipping short lengths, protective |
| 6.2 | Environmental Precautions: | eyewear is recommended. |
| 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

| | DEING & BIOMIGE | |
|-----|---|---|
| 7.1 | Handling | |
| | -General Rules | Store in cool, dry environment for functional purposes. |
| | -Technical Precautions for Safe Handling | None required. |
| | -Measures necessary to prevent airborne levels of | If product is exposed to temperatures are above 180 ⁰ F, use local |
| | chemical being generated as a result of handling. | ventilation. |
| 7.2 | Recommended Storage Conditions | |
| | -List incompatible materials | |
| | -Quantity Limits for storage | See sections 5 & 2 of this document. |
| | -Special Requirements for proper | |
| | storage of chemical | |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| 0. 2211 | EM OBERE CONTROLLY LENGUISE IN OTHER HONE | | | |
|---------|---|--|--|--|
| 8.1 | System Design | General mechanical or local hood. Ventilation is recommended for | | |
| | (e.g. Fume Hoods, Ventilated | applications where the product will exceed 180° F. | | |
| | Cabinets, Enclosure) | | | |
| 8.2 | Control Parameters | | | |
| | -Limit values or biological standards: | | | |
| 8.3 | Recommended Monitoring Procedures: | See Section 5, of this document. | | |
| 8.4 | Personal Protection | Use local or general ventilation away from the operator if the product | | |
| | -Respiratory Protection: | temperature is exposed to 180° F+. | | |
| | -Hand Protection: | Gloves may be used if resin is a skin irritant. | | |
| | -Eye Protection: | Eye protection should be worn when clipping short lengths. | | |
| | -Skin Protection: | See hand protection. | | |
| 8.5 | CEN standards | Carcinogens < 0.1% | | |

9. PHYSICAL AND CHEMICAL PROPERTIES

| 9.1 | Amagamaga | Copper metallic braid with fine crystalline resin layer. |
|------|---|---|
| | Appearance: | ** |
| 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 environment can occur in the presence of excessive heat |
| | -hazardous exothermic reaction: | and/or chemicals as listed in Section 5, this document. |
| | -change in appearance in the substance: | |
| | -hazardous products formed upon | |
| | contact with water: | |
| | -possible degradation to unstable | |
| | products: | |

11. TOXICOLOGICAL INFORMATION

| 11. TOX | ICOLOGICAL INFORMATION | |
|---------|--------------------------|--|
| 11.1 | Skin Exposure: | |
| | -Symptoms: | Possible allergic rash reaction. See Section 4, this document. |
| | -Immediate Effects: | |
| | -Delayed Effects: | |
| | -Chronic Effects: | |
| | -Special Health Effects: | |
| 11.2 | Eye Contact: | |
| | -Symptoms: | Possible danger of metal fragments. See Section 4, this document. |
| | -Immediate Effects: | |
| | -Delayed Effects: | |
| | -Chronic Effects: | |
| | -Special Health Effects: | |
| 11.3 | Inhalation: | |
| | -Symptoms: | |
| | -Immediate Effects: | If product is exposed to temperatures in excess of 180 ⁰ F, local |
| | -Delayed Effects: | ventilation must be used. |
| | -Chronic Effects: | |
| | -Special Health Effects: | |
| 11.4 | Ingestion: | |
| | -Symptoms: | |
| | -Immediate Effects: | May be moderately irritating to stomach lining. Induce vomiting if |
| | -Delayed Effects: | conscious. |
| | -Chronic Effects: | |
| | -Special Health Effects: | |

12. ECOLOGICAL INFORMATION

| 12. ECOLOGICAL INFORMATION | | | | |
|----------------------------|---|-----------------|--|--|
| 12.1 | Mobility -distribution to environmental compartments -surface tension -absorption / desorption -physical & chemical properties | Not applicable. | | |
| 12.2 | Degradability -biotic and abiotic degradation -acrobic and anaerobic degradation -persistence | Not applicable. | | |
| 12.3 | Accumulation -bioaccumulation potential -biomagnification | Not applicable. | | |
| 12.4 | Short and Long Term Effects on: -Ecotoxity -aquatic organisms -soil organisms -plants and terrestrial animals -Other Adverse Effects -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 | | | |
| 15.2 | Symbols: | Classification as designated in Section 3. | | | |
| 15.3 | Risk Phrases: | Risk Phrases: R36/37/38 | | | |
| 15.4 | Safety Phrases: | Safety Phrases: S14 (per section 5), S22/39, S43 (per section 5) | | | |
| 16 OTU | ER INFORMATION | | | | |
| 16.1 | Regulatory Information: | | | | |
| 10.1 | Regulatory information. | | | | |