

SUPER WICK LEAD FREE

400-LF SERIES

# Safety Data Sheet

## Section 1: Identification

### Product Identifier and Other Means of Identification

**Product Name:** Super Wick Lead Free**SDS Code:** 400-LF Series**Related Part #** 424-LF, 425-LF, 426-LF

### Recommended Use and Restriction on Use

**Use:** Desoldering braid for lead free solders**Uses Advised Against:** Do not use brazing soldering methods such as high temperature torch soldering/torch welding.

### Details of Manufacturer or Importer

**Manufacturer**MG Chemicals  
1210 Corporate Drive  
Burlington, Ontario L7L 5R6  
CANADAMG Chemicals (Head Office)  
9347-193 Street  
Surrey, British Columbia V4N 4E7  
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### Emergency Phone Number

**For hazardous material incidents ONLY**—leaks, spills, fires, exposures or accidents  
USA or CANADA: Call CHEMTREC ☎: **+1-800-424-9300****For emergencies involving dangerous goods;** Collect 24/7CANADA: Call CANUTEC ☎: **+1-613-996-6666** or **\*666** on cellular phones

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**Section 2: Hazard(s) Identification**


**Classification of Hazardous Chemical**

**GHS Categories**

Criteria		Category	Signal Word	Pictograms
Sensitization	Respiratory	1	Danger	Health
Sensitization	Skin	1	Warning	Exclamation

*Note:* The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.

**Label Elements**

<b>Signal Word</b>	<b>DANGER</b>
<b>Pictograms</b>	<b>Hazard Statements</b>
	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled H317: May cause an allergic skin reaction
<b>Prevention</b>	<b>Precautionary Statements</b>
P102	Keep out of reach of children.
P261	Avoid breathing fumes/vapors.
P284	In case of inadequate ventilation wear respiratory protection.
P280	Wear protective gloves.
P272	Contaminated work clothing should not be allowed out of the workplace.
<b>Response</b>	<b>Precautionary Statements</b>
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

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Disposal	Precautionary Statements
P501	Dispose of contents/container in accordance to local/regional/international regulations.

**Hazards Not Otherwise Classified**

Other Criteria	Hazard Statements/Precautionary Statement	Signal Word	Pictograms
None	None	None	None

**Section 3: Composition/Information on Ingredients**

CAS #	Chemical Name	%(weight)
7440-50-8	copper	95%
8050-09-7	rosin, colophony	5%

**Section 4: First-Aid Measures**

<i>Exposure Condition</i>	<i>GHS Code/Symptoms/Precautionary Statements</i>
<b>IF INHALED</b>	P304 + P340, P342 + P311
<b>Immediate Symptoms</b>	<i>cough, headache, sore throat, wheezing</i>
<b>Response</b>	Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
<b>IF ON SKIN</b>	P302 + P352, P333 + P313, P362 + P364
<b>Immediate Symptoms</b>	<i>mild irritation, redness, rash</i>
<b>Response</b>	Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
<b>IF IN EYES</b>	P305 + P351 + P338
<b>Immediate Symptoms</b>	<i>redness, mild irritation</i>
<b>Response</b>	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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<b>IF SWALLOWED</b>	P301 + P330, P331
<b>Immediate Symptoms</b>	<i>abdominal pain, nausea, vomiting</i>
<b>Response</b>	Rinse mouth. Do NOT induce vomiting.

**Section 5: Fire-Fighting Measures**

<b>Extinguishing Media</b>	In case of fire: Use extinguish media suitable for surrounding.
<b>Specific Hazards</b>	In a fire, this product can release irritating flux fumes. In presence of molten metal, do NOT use water on fire.
<b>Combustion Products</b>	Produces carbon oxides (CO and CO <sub>2</sub> ) and oxidized rosin colophony by-products.
<b>Fire-Fighter</b>	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

**Section 6: Accidental Release Measures**

<b>Personal Protection</b>	See personal protection recommendations in Section 8.
<b>Precautions for Response</b>	Avoid breathing fumes/vapors. Remove or keep away all sources of extreme heat.
<b>Environmental Precautions</b>	Avoid releasing to the environment.
<b>Containment Methods</b>	Not applicable
<b>Cleaning Methods</b>	Collect waste in a sealable waste container.
<b>Disposal Methods</b>	Dispose of spill waste according to Section 13.

**Section 7: Handling and Storage**

<b>Prevention</b>	Keep out of reach of children. Avoid breathing fumes/vapors. In case of inadequate ventilation wear respiratory protection.
<b>Handling</b>	Wear protective gloves. Take off contaminated clothing and wash it before reuse. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly after handling.
<b>Storage</b>	Not applicable.

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**Section 8: Exposure Controls/Personal Protection**

**Substances with Occupational Exposure Limit Values**

Chemical Name	Country	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
copper ( <i>dust and mist</i> )	ACGIH	1.0 mg/m <sup>3</sup>	Not established
	U.S.A. OSHA PEL	1.0 mg/m <sup>3</sup>	Not established
	Canada AB	1.0 mg/m <sup>3</sup>	Not established
	Canada BC	1.0 mg/m <sup>3</sup>	Not established
	Canada ON	1 mg/m <sup>3</sup>	Not established
	Canada QC	1 mg/m <sup>3</sup>	Not established
rosin, colophony ( <i>solder thermal decomposition</i> )	ACGIH	L, S, asthma	Not established
	U.S.A. OSHA PEL	Not established	Not established
	Canada AB	Not established	Not established
	Canada BC	L, S	Not established
	Canada ON	L	Not established
	Canada QC	0.1 mg/m <sup>3</sup>	Not established

*Note:* Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH<sup>1</sup>, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS<sup>2</sup> database and from suppliers' SDSs were also consulted. Short term exposure limits (STEL) are for 15 min and long term permissible exposure limits (PEL) for 8 h.

(L) Exposure by all routes should be carefully controlled to levels as low as possible.

(S) Sensitizer

**Engineering Controls**

**Ventilation**

Keep airborne concentrations below the occupational exposure limits (OEL).

**RECOMMENDATION:** For frequent or prolonged soldering processes, use of a local exhaust system to avoid exposure to thermal decomposition products. For example, use fume cabinet, a hood on a flexible arm, or tip-mounted fume extraction system on the soldering iron.

If the product is heated or worker has a known allergic reaction, consider using a full mask with organic vapor cartridge or with an independent air supply.

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**SUPER WICK LEAD FREE****400-LF SERIES****Personal Protective Equipment****Eye protection**

Wear appropriate protective eyeglasses or chemical safety goggles.

**RECOMMENDATION:** Ensure that glasses have side shields for lateral protection.

**Skin Protection**

For incidental contacts, use nitrile or other chemically resistant gloves.

Thermal resistant gloves should be worn instead if contact with molten metal is expected.

**Respiratory Protection**

If exposed to fumes or dust above the exposure limit, a suitable wear respirator meeting local/regional/national guidelines.

Generally, for emergencies and exposure above  $0.5 \text{ mg/m}^3$ , use a self-contained breathing apparatus with full face piece operated in a pressure positive mode.

**RECOMMENDATION:** Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be fitted to the employee by a professional. Ensure vapor cartridges are stored in sealed plastic bags when not being used.

**General Hygiene Considerations**

Wash hands thoroughly with water and soap after handling.

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**Section 9: Physical and Chemical Properties**

<b>Physical State</b>	Solid	<b>Lower Flammability Limit</b>	Not applicable
<b>Appearance</b>	Copper	<b>Upper Flammability Limit</b>	Not applicable
<b>Odor</b>	None	<b>Vapor Pressure @20 °C</b>	Not available
<b>Odor Threshold</b>	Not available	<b>Vapor Density</b>	Not applicable
<b>pH</b>	Not available	<b>Specific Gravity @25 °C</b>	8.8
<b>Freezing/Melting Point</b>	1 057 °C [1 934 °F]	<b>Solubility in Water</b>	Negligible <sup>a)</sup>
<b>Boiling Point</b>	Not available	<b>Partition Coefficient</b>	Not available
<b>Flash Point</b>	Not applicable	<b>Auto-ignition Temperature</b>	Not available
<b>Evaporation Rate</b>	Not available	<b>Decomposition Temperature</b>	Not available
<b>Flammability (solid, gas)</b>	Not available	<b>Viscosity @25 °C</b>	Not applicable

a) Metal components are sparingly soluble

**Section 10: Stability and Reactivity**

<b>Reactivity</b>	When rosin flux is exposed to soldering temperatures (350–400 °C) during normal conditions of use, it produces oxidized rosins. These by-products are known skin and respiratory sensitizers.
<b>Chemical Stability</b>	Chemically stable at normal temperatures and pressures
<b>Conditions to Avoid</b>	Extreme temperatures above 450 °C, such as those due to welding
<b>Incompatibilities</b>	Oxidizing agents, strong acids
<b>Polymerization</b>	Will not occur
<b>Decomposition</b>	Thermal degradation produces oxidized rosin by-products that are known skin and respiratory sensitizers.  For thermal decomposition, see combustion products in Section 5.

**SUPER WICK LEAD FREE****400-LF SERIES****Section 11: Toxicological Information****Routes of Exposure**

Inhalation, Skin contact, Eye contact, and Ingestion

**Symptoms Summary**

<b>Eyes</b>	May cause redness and mild irritation.
<b>Skin</b>	May cause redness, mild irritation and rash.
<b>Inhalation</b>	May cause cough, headache, sore throat and wheezing. <i>Additional Desoldering By-Product Information:</i> Overexposure to dust or metal fumes from the solders may lead to pneumoconiosis (or Stannosis), anemia and central nervous system effects.
<b>Ingestion</b>	Low toxicity—May cause abdominal pain, nausea and vomiting
<b>Chronic</b>	Prolonged or repeated exposure to the oxidized rosin flux may lead to skin sensitization, respiratory sensitization and provoke asthma.

**Acute Toxicity (Lethal Exposure Concentrations)**

<b>Chemical Name</b>	<b>LD50 oral</b>	<b>LD50 dermal</b>	<b>LC50 inhalation</b>
copper	>5 000 mg/kg Mouse	Not available	>5.11 mg/L Rat 4 h
rosin, colophony	≥2 800 mg/kg Rat	≥2 000 mg/kg Rat	110 mg/m <sup>3</sup> Rat

*Note:* Toxicity data from the RTECS<sup>2</sup> and ECHA were consulted. The data from supplier (M)SDS were also consulted.

**Other Toxicological Effects**

<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met.
<b>Serious eye damage/irritation</b>	Based on available data, the classification criteria are not met.
<b>Sensitization</b> (allergic reactions)	Under normal soldering temperatures, rosin produces oxidation by-products that are known respiratory and skin sensitizers. Inhalation of rosin soldering fumes is a recognized cause of occupational asthma.

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<b>Carcinogenicity</b> (risk of cancer)	Not classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP
<b>Mutagenicity</b> (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
<b>Reproductive Toxicity</b> (risk to sex functions)	Based on available data, the classification criteria are not met.
<b>Teratogenicity</b> (risk of fetus malformation)	Based on available data, the classification criteria are not met.
<b>STOT-single exposure</b>	Based on available data, the classification criteria are not met.
<b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Aspiration hazard</b>	Not applicable. There is no category 1 components, and the kinematic viscosity is >20.5 mm <sup>2</sup> /s at 40 °C.

**Section 12: Ecological Information**

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<http://echa.europa.eu>), and other reliable

Based on transformation/dissolution data published by ECHA registrants, the classification threshold is not met for massive copper.

Based on available data for rosin, the GHS aqueous toxicity classification criteria are not met.

**Acute Ecotoxicity**

Based on available data, the classification criteria are not met.

**Chronic Ecotoxicity**

Based on available data, the classification criteria are not met.

**Biodegradability**

Not available

**Bioaccumulation**

Not available

**Other Effects**

Not available

**SUPER WICK LEAD FREE****400-LF SERIES****Section 13: Disposal Information**

Dispose of contents in accordance with all local, regional, national, and international regulations.

**Section 14: Transport Information****Ground**

**Refer to TDG regulations** (Canadian Transportation of Dangerous Goods regulations);  
**USA DOT 49 CFR** (Parts 100 to 185) **Regulations.**

Non Regulated

**Air**

**Refer to ICAO-IATA Dangerous Goods Regulations.**

Non Regulated

**Sea**

**Refer to IMDG regulations.**

Non Regulated

**Section 15: Regulatory Information****Canada****Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)**

All hazardous ingredients are listed on the DSL.

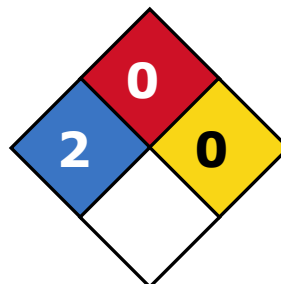
**Hazardous Products Act (R.S.C., 1985, c. H-3)**

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

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**SUPER WICK LEAD FREE****400-LF SERIES****USA****Other Classifications****HMIS® RATING**

<b>HEALTH:</b>	<b>*</b>	<b>2</b>
<b>FLAMMABILITY:</b>		<b>0</b>
<b>PHYSICAL HAZARD:</b>		<b>0</b>
<b>PERSONAL PROTECTION:</b>		

**NFPA® 704 CODES**

*Approximate HMIS and NFPA Risk Ratings Legend:*

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

**CAA** (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain substances that are listed as hazardous air pollutants.

**EPCRA** (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product contains copper (CAS# 7440-50-8; reportable quantity = 5 000 lb), which is subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

**TSCA** (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

**California Proposition 65** (Chemicals known to cause cancer or reproductive toxicity, June 06, 2014 revision, USA).

This product does not contain any of the listed substances.

**Europe****RoHS** (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

**WEEE** (Waste Electrical and Electronic Equipment Directive)

This product is subject to the WEEE regulation.

**SUPER WICK LEAD FREE****400-LF SERIES****Section 16: Other Information**

<b>SDS Prepared by</b>	Michel Hachey
<b>Date of Review</b>	04 July 2017
<b>Supersedes</b>	10 August 2016
<b>Reason for Changes:</b>	Revision of composition

**Reference**

1) ACGIH 2013 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2013).

2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
IARC	International Agency for Research on Cancer
NOELR	No observable effect loading ratio
NTP	National Toxicology Program
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
SDS	Safety Data Sheet
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Content

**Technical Queries** Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at [www.mgchemicals.com](http://www.mgchemicals.com).

Email: [support@mgchemicals.com](mailto:support@mgchemicals.com)

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