SECTION I: PRODUCT AND COMPANY INFORMATION

Product Name: KappZappA™ - Tin Silver Acid Flux-Cored Solder for Copper, Brass & Stainless Steel
Lawson Item Numbers: CW1020 and CW1021

Component	CAS Number	EC/List No.	Component	CAS Number	EC/List No.
Tin (Sn)	7440-31-5	231-141-8	Azelaic Acid	123-99-9	204-669-1
Silver (Ag)	7440-22-4	231-131-3	Urea	57-13-6	200-315-5
Ethylene Diamine dihydrochloride	333-18-6	206-369-6	Succinimide	123-56-8	204-635-6
Ethylene dihydrochloride	557-66-4	209-182-8			

Company Identification: Kapp Alloy and Wire, Inc., 1 Klein Street / PO Box 1188, Oil City, PA 16301
Contact: Telephone: 814-676-0613 or 1-800-327-6533, Email: info@kappalloy.com

SECTION II: HAZARD INFORMATION

Classification of the mixture according to Regulation (EC) No. 1272/2008 and OSHA 29 CFR 1910

Acute toxicity, oral and respiratory (Category 4)
Respiratory Sensitization (Category 1)
Skin sensitization (Category 1)
Serious eye irritation (Category 2A)
Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3)


GHS08 Health Hazard
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.


GHS07
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.

Label Elements: Hazard Pictograms  GHS07  GHS08

Signal Word: **Danger**

Hazard-determining components of labeling: Acid flux core (in center of solder wire)

Hazard Statements:
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 - May cause respiratory irritation.

Precautionary Statements:

P261 - Avoid breathing dust/fumes/gas/mist/vapors/spray.
P262 - Do not get in eyes, on skin, or on clothing.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P312 - Call a POISON CENTER/ doctor/medical facility if you feel unwell.
P301+P312+P330 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338 – IF IN EYES: Flush with water for at least 15 minutes to remove irritant. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician.
P337+313 - If eye irritation persists get medical advice/attention.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304+312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352 IF ON SKIN: Wash thoroughly with soap and water to remove any residue. If a rash develops, call a physician.
P333+313 - If skin irritation occurs: Get medical advice/attention.
P321 - Specific treatment see below on this SDS.
P363 - Wash contaminated clothing before reuse.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

Results of PBT and vPvB assessment: PBT: Not applicable; vPvB: Not applicable.

PRIMARY ROUTES OF ENTRY

- Inhalation: fumes
- Ingestion: Solid metals – not edible; highly unlikely
- Skin Absorption: N/A

SIGNS AND SYMPTOMS OF OVEREXPOSURE

- Flu-like symptoms (nausea, constipation, headache, dizziness) - self-limiting, usually disappear within 24 hours

SECTION III: COMPOSITION / INGREDIENTS

*(Hazardous components 1% or greater; Carcinogens 0.1% or greater)

Component	CAS Number	EC/List Number	OSHA PEL	ACGIH TLV 8hrTWA	Density (lbs./in.^{3}) & (g/ml)	% (optional)
Tin (Sn)	7440-31-5	231-141-8	2 mg/m^3	2 mg/m^3	.2640 & 7.307	96.5
Silver (Ag)	7440-22-4	231-121-3	.01 mg/m^3 (Dust&Fume)	.01 mg/m^3 (Dust&Fume)	.3787 & 10.482	3.5
*Azelaic Acid	123-99-9	204-669-1	NE	NE	NA	0-4
Urea	57-13-6	200-315-5	NE	5 mg/m3	NA	0-4
Ethylene Diamine dihydrochloride	333-18-6	206-369-6	NE	50 ppm	NA	0-4
Ethylene dihydrochloride	557-66-4	209-182-8	NE	NE	NA	0-4
Succinimide	123-56-8	204-635-6	NE	NE	NA	0-4

*Acid Flux Core is centered inside the wire is 3% by weight. PEL = Permissible Exposure Limit; TLV = Threshold Limit Value; NA = Not Applicable; NE = Not Established; NAIF = No Applicable Information found

SECTION IV: FIRST AID MEASURES

Ingestion:	Drink large quantities of water - induce vomiting. Call a physician at once; advise of chemical composition (section III).
Skin:	Wash thoroughly with water to remove any residue. If a rash develops, call a physician.
Inhalation:	Terminate exposure and remove to fresh air. Call a POISON CENTER or doctor/physician if you feel unwell.
Eyes:	Flush with water for at least 15 minutes to remove irritant. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

SECTION V: FIRE FIGHTING MEASURES

Flash point & Methods Used:	N/A
Auto Ignition Temperature:	N/A
Flammability Limits:	(in air, % by volume) LEL: N/A and UEL: N/A

Extinguisher Media: **CO_2 or dry chemical extinguisher.**

DO NOT USE WATER ON MOLTEN METAL:
LARGE FIRES MAY BE FLOODED WITH WATER FROM A DISTANCE

Special Fire Fighting Procedures	Use NIOSH/MSHA -approved self-contained breathing apparatus and full protective clothing if involved in fire.
Unusual Fire and Explosion Hazards	Finely divided dust may form explosive mixture with air.

NEVER DROP WATER OR LIQUIDS INTO MOLTEN SOLDER.
***Do not plunge damp or wet solder bars/pieces into molten solder**

SECTION VI: ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is spilled or released:

- Solder is solid / recyclable
- Vacuuming is recommended for accumulated metal dust from saw/grind operations.

SECTION VII: HANDLING AND STORAGE

Precautions to be taken in handling and storage:

- Dry storage; ambient temperature

Other Precaution / Special Handling:

- Wet or moist ingot(s) WILL present an explosion hazard when submerged in molten solder.
  ***AVOID FIRE/EXPLOSION RISKS. Always preheat ingot before charging into furnace.**

SECTION VIII: EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection:	Use NIOSH-approved breathing apparatus to prevent exposure to dusts and fumes.
Eye Protection:	Approved safety glasses/welding goggles, appropriate to your procedure, should be worn.
Ventilation:	Local Exhaust: YES; Mechanical: YES Special: Conform to your regulatory statutes.
Other:	Standard protective equipment used in soldering (/applicable) operations. *Protective gloves are recommended, especially for high temperature applications to prevent burns. *Conform to all local, state, federal regulations.

See also: 29 CFR 1910.132 - 29 CFR 1910.140. *Personal Protective Equipment*
29 CFR 1910.251 - 29 CFR 1910.257. *Welding, Cutting and Brazing*

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: Sn@ 4120°F/2270°C -Ag@ 4010°F/2210°C and Acid Flux: 385°F / 196°C
Melting Point: 430°F / 221°C Eutectic
Vapor Pressure (mm Hg.): N/A
Vapor Density (AIR = 1): N/A
Density: .2680lbs/in.^{3} and/or 7.4186g/ml
Solubility in Water: 0 (solid)
Evaporation Rate (Butyl Acetate = 1): N/A
Appearance and Odor: Lustrous, silver metal; odorless / various shapes and sizes.

SECTION X: STABILITY AND REACTIVITY

Stability: Stable
Conditions to avoid: Avoid strong oxidizing materials, e.g. Chlorine trifluoride, hydrogen peroxide, sodium azide, ammonia, & Acetylene.

SECTION XI: TOXICOLOGY INFORMATION

Tin (Sn): Elemental Tin is NOT generally considered to be toxic.
Silver (Ag): Argyria, a blue-gray discoloration of the skin, mucous membranes, and eyes may result from inhalation of silver. Note: this discoloration may be permanent.

IT IS UNLIKELY THAT NORMAL EXPOSURE (USING APPROPRIATE PROTECTIVE EQUIPMENT) WOULD RESULT IN ILLNESS.

*0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme

	Health	Flammability	Reactivity	Special
NFPA Rating	1	0	0	0
HMIS Rating	1	0	0	0

SECTION XII: ECOLOGY INFORMATION

This product will not biodegrade. It will oxidize if left out in the elements, but will not affect the surrounding ecology.
General notes:
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Danger to drinking water if quantities leak into the ground.

SECTION XIII: DISPOSAL CONSIDERATION

Waste Disposal Method

- Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Disposal must be made according to federal, state, local, and OSHA regulations.

SECTION XIV: TRANSPORT INFORMATION

Ground - DOT Proper Shipping Name: Solder
Not regulated for transport by US DOT.

Air - IATA Proper Shipping Name: Solder
Not regulated for air transport by IATA.

SECTION XV: REGULATORY INFORMATION

SARA Title III Program:

- This product contains no toxic chemicals subject to the reporting requirements of the Emergency Planning and Community Right to Know Act (EPCRA) of 1986 and 40 CFR 372

SECTION XVI: OTHER INFORMATION

This information must be included in all SDS that are copied and distributed for this material.

GOOD HOUSEKEEPING PROCEDURES SHOULD BE MAINTAINED.
PERSONNEL SHOULD WASH THOROUGHLY BEFORE SMOKING OR EATING
FOOD AND DRINK SHOULD NOT BE CONSUMED, TOBACCO PRODUCTS USED, OR COSMETICS APPLIED IN AREAS WHERE EXPOSURES EXIST.

Please retain this sheet for your files. Kapp Alloy maintains a file of Safety Data Sheets (SDS) for each alloy produced in compliance with Federal OSHA Hazard Communication Standard (29 CFR 1910.1200) & various right-to-know laws.

The information and recommendations contained within this publication have been compiled from sources believed to be reliable and to represent the best information available to Kapp Alloy and Wire, Inc. at the time of issue. It is our policy to include an SDS with initial orders for each product. This submission is to become a matter of record and need not accompany subsequent shipments for the same product to the same customer. The information contained on this sheet is intended solely for employee health and safety education and not for contract specification purposes. No warranty, guarantee, or representation is made by Kapp Alloy and Wire, Inc., nor does Kapp Alloy and Wire, Inc. assume any responsibility in connection there within; nor can it be assumed that all acceptable safety measures or other safety measures may not be required under particular or exceptional conditions or circumstances. Should you need additional information, contact us.