

Section 1 - Identification

Product Name: **Tin-All Free Powder**

Metal halide flux and lead-free powdered solder.

Revised: 4/28/15

Damon Industries, Inc. Box 2120 Alliance, Ohio 44601 U.S.A.	1-800-362-9850 1-330-821-5310 1-330-821-6355 Fax info@DamonQ.com	24 HOUR EMERGENCY RESPONSE INFOTRAC account number 84122 1-800-535-5053 (U.S. & Canada) 001-352-323-3500 (International)
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Section 2 - Hazards Identification

Hazard categories: Acute Toxicity-Oral 4; Skin Corrosion/Irritation 1; Eye Corrosion/Irritation 1; Specific Target Organ Toxicity-Single Exposure 3; Specific Target Organ Toxicity-Repeated Exposure 2

Hazard statements: Harmful if swallowed.
Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.



Signal word: Danger
Pictogram: Health, Corrosion, Exclamation

Precautionary statements

Prevention

Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Do not breathe dusts or mists.
Wear protective gloves such as latex.
Wear protective clothing such as an apron.
Wear eye protection such as safety glasses with side shields.
Use only outdoors or in a well-ventilated area.

Response

IF SWALLOWED: Do NOT induce vomiting. Call a POISON CENTER if you feel unwell. Rinse mouth.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER for medical advice.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER.

Storage: Store locked up. Store in well-ventilated place. Keep container tightly closed.

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

Section 3 - Composition / Information on Ingredients

Ingredient	C.A.S. No.	Percent
Zinc Chloride	7646-85-7	54%
Tin	7440-31-5	30%
Ammonium Chloride	12125-02-9	14%
Copper	7440-50-8	2%

The remaining ingredients are not reportable as described in Appendix D to Sec. 1910.1200 Table D.1.

Section 4 - First Aid Measures

Eye Contact: Immediately flush eyes with water for several minutes, lifting upper and lower eyelids occasionally. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER.
Skin Contact: For brief contact wash exposed skin with soap and water. With longer contact or when redness or irritation are present, flush the exposed skin with running water for several minutes. Remove contaminated clothing and shoes. If redness, irritation or other symptoms exist after flushing, get medical attention. Wash clothing before reuse.

Inhalation: Move the affected person to fresh air. If irritation, coughing or other symptoms persist, get medical attention immediately.

Ingestion: If the product is swallowed, do NOT induce vomiting. If affected person is conscious, give a glass of water or milk to drink. Get medical attention immediately. Treat for shock by keeping the person warm and quiet.

Section 5 - Fire-Fighting Measures

Extinguishing Media: Any

Special Fire Fighting Procedures: None.

Unusual Fire And Explosion Hazards: None.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Scoop up material into a clean container. Clean up spills with a rag or mop. Avoid putting solder down the sewer. Clean the spill area with a neutral or alkaline cleaner.

Section 7 - Handling and Storage

Empty containers retain product residue and may be hazardous. Observe all precautions given in this data sheet and on label. Keep container closed.

Section 8 - Exposure Controls / Personal Protection

Ingredient	C.A.S. No.	Concentration	TWA(source)	STEL	Ceiling
Zinc chloride (fume)	7646-85-7	50%	1 mg/m ³ _(1,2,3,4)	2 mg/m ³ _(2,3,4)	-
Tin	7440-31-5	30%	2 mg/m ³ _(1,2,3,4)	4 mg/m ³ ₍₄₎	-
Ammonium chloride	12125-02-9	14%	10 mg/m ³ _(2,3,4)	20 mg/m ³ _(2,3,4)	-
Copper	7440-50-8	2%	1 mg/m ³ _(1,2,3,4)	2 mg/m ³ ₍₄₎	-

(1)=OSHA (2)=NIOSH (3)=ACGIH (4)=CANADA TWA=8 hour Time Weighted Average STEL=15 minute TWA Ceiling=Instantaneous
Ingredients not shown either have no known limits or are below reportable levels in section 3 above.

Ventilation: Use mechanical exhaust to maintain fume concentrations below the exposure limits.

Respiratory Protection: If the exposure limit will be exceeded or fumes are irritating during use, wear a NIOSH approved respirator with a cartridge approved for zinc chloride fumes.

Protective Gloves: Use rubber, latex, Nitrile, etc. gloves. Do not use disposable latex gloves.

Eye Protection: Wear safety glasses with side shields or chemical goggles.

Other Protective Equipment: If splashing is likely to occur wear aprons, protective clothing or boots as the exposure conditions call for.

Section 9 - Physical and Chemical Properties

Boiling Point: 330° F.

Specific Gravity: 1.4

Percent Volatiles: 0%

Solubility In Water: All but solder is soluble

Appearance and Odor: A greyish-white powder with slight odor.

Vapor Pressure: Not Applicable

Vapor Density: Not Applicable

Evaporation Rate: 1.0 (Water = 1)

pH: Mixed with water to a paste 1.0 ± 0.5

Appearance and Odor: A grey heavy paste with acidic odor.

Odor Threshold: Not Available

Vapor Pressure: Not Available

pH: concentrate 1.0 ± 0.5

Vapor Density: Not Available

Melting Point: Not Available

Relative Density (Specific Gravity): 2.4

Freezing Point: Not Available

Solubility(ies): Water: All but solder.

Boiling Point, Initial: 300° F.

Partition coefficient: Not Available

Boiling Range: Not Available

Auto-ignition Temperature: Not Available

Flash Point: None. (ASTM D-56 closed cup)

Decomposition Temperature: Not Available

Evaporation Rate: ~1 (Water = 1)

Viscosity: Same as water.

Flammability: (solid, gas): Not Applicable

Volatiles Percent: 3%

Upper Explosive Limit: None

V.O.C.: 0% - 0 grams/liter

Lower Explosive Limit: None

Section 10 - Stability and Reactivity

Incompatibility: Strong alkalis, bleach, oxidizers.

Hazardous Decomposition Products: Possibly hydrogen chloride, ammonia.

Section 11 - Toxicological Information

Primary Routes of Entry: Skin contact; Skin absorption; Inhalation; Ingestion

Potential Health Effects:

Eyes - causes irritation, redness and may cause eye damage.

Skin - may cause irritation, redness. May cause contact dermatitis and sensitization in certain people.

Swallowing - causes severe irritation to mucous membranes.

Breathing - excessive inhalation of soldering fumes causes irritation of the mouth, nose, throat and respiratory passages. Heavy exposure to soldering fumes can, in rare cases, cause metal fume fever, a flue-like condition from which complete recovery generally occurs without intervention within 24 to 48 hours.

Section 12 - Ecological Information

Do not dispose of in the environment.

Section 13 - Disposal Considerations

Waste Disposal Method: If product can not be used, dispose of at a chemical landfill in compliance with local, state and federal regulations.

Section 14 - Transport Information

D.O.T. Hazard Class: Not considered hazardous by the D.O.T.

Section 15 - Regulatory Information

The components of this product are on the TSCA inventory of chemical substances.

Section 313 Supplier Notification: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and CFR 372.

<u>Chemical Name</u>	<u>C.A.S. No.</u>	<u>% By Weight</u>
Zinc chloride	7646-85-7	50%
Copper	7440-50-8	2%

Section 16 - Other Information

NFPA: H:2 F:0 I:1 **HMIS® III:** H:2 F:0 P:1 These ratings estimates are to be used only with a fully implemented training program in the workplace. NFPA® is a mark registered by the NFPA. HMIS® is a mark registered by the NPCA.

Replaces sheet dated 5/12/14. GHS conversion.

The information accumulated herein is believed to be accurate but is not warranted to be. Recipients are advised to confirm in advance that the information is current, applicable, and suitable to their circumstances.