Safety Data Sheet

Number: DMN0115

Section 1 - Identification

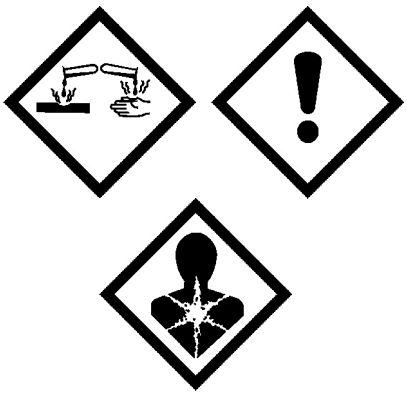
Product Name: Liquid Soldering Flux Metal halide flux. **Revised:** 10/20/16

Damon Industries, Inc. **12435 Rockhill NE** **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** **1-800-535-5053 (U.S. & Canada)** **001-352-323-3500 (International)**

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



Signal word: Danger

Pictograms: Corrosion, Health Hazard, 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.
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.	Concentration
Zinc chloride	7646-85-7	47%
Water	7732-18-5	37%
Ammonium Chloride	12125-02-9	16%

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: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing, lifting upper and lower eyelids occasionally. Immediately call a POISON CENTER.
Skin Contact: For brief contact, or contact with diluted product, wash exposed skin with soap and water. With longer contact or when redness or irritation are present, flush the exposed skin with running water. Remove contaminated clothing and shoes. If redness, irritation or other symptoms exist after flushing, get medical attention immediately. 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. Treat for shock by keeping the person warm and quiet. Get medical attention immediately.

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: Clean up small spills with a rag or mop. Wash the area with an alkaline detergent or a 50% solution of baking soda. Spills of one-half gallon or less can be washed to the sanitary sewer with plenty of water. Larger spills should diked to prevent spreading and then collected into clean pails or drums.

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.

If this product contacts bleach or a cleaner containing bleach, it could produce a dangerous gas (chlorine). If your facility uses bleach, or a cleaner containing bleach, look at the MSDS on the bleach product now, to learn what to do if chlorine is accidentally produced. Your facility should decide upon the appropriate emergency action plan for accidental release of chlorine as a part of your emergency preparedness plan. Contact Damon Industries if more information is needed.

Section 8 - Exposure Controls / Personal Protection

Ingredient	C.A.S. No.	Concentration	TWA(source)	STEL	Ceiling
Zinc chloride	7646-85-7	47%	1 mg/m^3(1,2,3,4)	2 mg/m^3(2,3,4)	-
Ammonium Chloride	12125-02-9	16%	10 mg/m^3 (2,3,4),	20 mg/m^3 (2,3,4)	-

(1)=OSHA (2)=NIOSH (3)=ACGIH (4)=CANADA TWA=8 hr 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 airborne 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 or latex gloves.
Eye Protection: Wear safety glasses with side shields or chemical goggles or face shield.
Other Protective Equipment: If splashing is likely to occur wear aprons, protective clothing or boots as the situation calls for.

Section 9 - Physical and Chemical Properties

Appearance and Odor: A pink liquid with a wintergreen 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):** 1.16
Freezing Point: Not Available	**Solubility(ies): Water:** 100%
Boiling Point, Initial: 230° 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:** 38%
Upper Explosive Limit: None	**V.O.C.:** 0.5% - 6.6 grams/liter
Lower Explosive Limit: None	

Section 10 - Stability and Reactivity

Incompatibility: Alkalis, bleach, oxidizers. **Hazardous Decomposition Products:** None

Section 11 - Toxicological Information

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

Potential Health Effects:
Eyes - causes severe irritation.
Skin - causes irritation, redness. May cause contact dermatitis and sensitization.
Swallowing - causes severe irritation to mucous membranes.

Breathing - excessive inhalation of soldering fumes causes irritation of the mouth, nose, throat and respiratory passages. May cause metal fume fever, a flue-like condition from which complete recovery generally occurs without intervention within 24 to 48 hours.
Target Organs: Skin sensitizer.

Section 12 - Ecological Information

Do not dispose of in the environment.

Section 13 - Disposal Considerations

Waste Disposal Method: Up to one-half gallon may be washed to the sanitary sewer with a large amount of water. Larger amounts should be neutralized to within pH limits of your waste water system and then disposed of in the sanitary sewer.

Section 14 - Transport Information

D.O.T. Hazard Class: North America: Not considered hazardous by D.O.T. for ground transportation.
Outside N.A. and all Air and Marine: UN1840, Zinc chloride, solution, 8, PG III, Marine Pollutant.

I.M.D.G. Marine Pollutant: Zinc chloride was added to the marine pollutant list on 1/8/15. Containers larger than 5 liters must be labeled “Marine Pollutant”. Containers less than or equal to 5 liters (ie. gallon jugs) per inner package or single package are exempt according to IMDG code part 5.2.1.6. All cargo transport units must be labeled whether containing exempt containers or not.

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.

Chemical Name	C.A.S. No.	% By Weight	Lbs./Gallon
Zinc chloride	7646-85-7	47%	3.75

Section 16 - Other Information

NFPA: H:3 F:0 I:2 **HMIS® III:** H:3 F:0 P:2 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 6/28/16. Marine pollutant information added.

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.