

MATERIAL SAFETY DATA SHEET

MSDS Date: 09.27.11

MSDS Name: Kapp Comet Flux for Metals Other Than Aluminum 350°F to 550°F

MSDS Number: 550

SECTION I: PRODUCT AND COMPANY INFORMATION

Product Name: Kapp Comet Flux for Metals Other Than Aluminum 350°F to 550°F

CAS Number:

Component	CAS Number	Component	CAS Number
Zinc Chloride	7646-85-7	Monoethanolamine, HCl	2002-24-6
Hydrochloric Acid	7647-01-0	Ammonium Chloride	12125-02-9

Company Identification: Kapp Alloy and Wire
One Klein Street / PO Box 1188
Oil City, PA 16301

Contact: Operations Team Leader, Telephone: 814.676.0613 Fax: 814.676.5565, Email: info@kappalloy.com**SECTION II: HAZARD INFORMATION****Target Organ Statement**

- Causes severe burns to skin, eyes, and respiratory system

Effects of Chronic Exposure

- Contact burns, irritation to skin (scarring), eyes & respiratory system.
- Possible liver and kidney effects.

SECTION III: COMPOSITION / INGREDIENTS

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

COMPONENT	CAS NO.	OSHA PEL	HAZARD
Zinc Chloride	7646-85-7	1	Corrosive
Hydrochloric Acid	7647-01-0	7	Corrosive
Monoethanolamine, HCl	2002-24-6	3	Eye Irritant
Ammonium Chloride	12125-02-9	10	OSHA

NA = Not Applicable NE = Not Established NAIF = No Applicable Information found

SECTION IV: FIRST AID MEASURES

Ingestion: Call a physician or Poison Control Center. Advise of chemical composition (Section III). Do not induce vomiting. Give large quantities of water, milk, or 5% sodium bicarbonate solution.

Skin: Promptly flush with water to remove any residue. If a rash or burn develops, consult a physician. Product is corrosive.

Inhalation: Terminate exposure and remove to fresh air. Call physician; advise of chemical composition (section III). Provide oxygen.

Eyes: Flush with water for at least 20 minutes to remove irritant. Consult a physician.

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, -UEL: N/A

Extinguisher Media: Water, fog, or foam.

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

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Special Fire Fighting Procedures Full protective equipment required. May release zinc oxide and HCl fumes. Toxic metal halide fumes produced.

Unusual Fire and Explosion Hazards Dense smoke may be generated.

EMERGENCY PHONE NUMBER: CALL CHEMTREC (800) 424-9300 – AVAILABLE 24 HOURS

SECTION VI: ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is spilled or released:

- Contain, absorb, sweep-up, and dispose. Flush area to chemical sewer. Soda ash (sodium carbonate) is a neutralizer for acid.

SECTION VII: HANDLING AND STORAGE

Precautions to be taken in handling and storage:

- Store flux in a well-sealed container at ambient conditions, with temperatures between 35 – 100°F and 2 – 38°C Wash thoroughly after handling to remove all residue. No eating or smoking in work area.

Other Precaution / Special Handling:

- Do not take internally. Avoid eye and skin contact. Avoid inhaling mist or dust. Professionally wash contaminated clothing before re-use.

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 or welding goggles, appropriate to your procedure, should be worn.
Ventilation:	Maintain airflow away from user to remove all fumes and vapors, so that the PEL is never exceeded. Adhere to Environmental regulations for exhausts.
Other:	Full protective equipment normally used in soldering (/applicable) operations so as to prevent any contact. Review operations to avoid contact with hazardous gas, liquids or solids.
See also:	29 CFR 1910.132 - 29 CFR 1910.140. <i>Personal Protective Equipment</i> 29 CFR 1910.251 - 29 CFR 1910.257. <i>Welding, Cutting and Brazing</i>

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	~500 °F @ 760 mmHg: ~212
Specific Gravity:	(H ₂ O = 1 @ 72°F): 1.38
Solubility in Water:	Appreciable
Evaporation Rate (Butyl Acetate = 1):	<1
Percent volatiles by volume:	N/E
Appearance and Odor:	Pale yellow water solution with no significant odor.
Use:	General purpose low temperature soft soldering flux, corrosive residue.

SECTION X: STABILITY AND REACTIVITY

Stability:	Stable
Conditions to avoid:	None
Incompatibility (materials to avoid):	Strong Acids, Strong Alkalis
Hazardous Decomposition Products:	None; Hazardous Polymerization will not occur

SECTION XI: TOXICOLOGY INFORMATION

Swallowing:	Can cause damage to digestive system. Corrosive to mucous membranes.
Skin Absorption / Contact:	Burns; immediate hazard.
Inhalation:	Irritates respiratory system, coughing, & sneezing. Aggravates existing lung disorders.
Eye Contact:	Irritation to eyes, tearing, burns eye surfaces, corrosive to eyes. May cause blindness.

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	*0 = Insignificant	1 = Slight	2 = Moderate	3 = High	4 = Extreme
	Health	Flammability	Reactivity	Special	
NFPA Rating	1	0	1	0	
HMIS Rating	1	0	1	0	

SECTION XII: ECOLOGY INFORMATION

This product will not biodegrade. It will oxidize if left out in the elements, but will not affect surrounding ecology.

SECTION XIII: DISPOSAL CONSIDERATION

Waste Disposal Method

- Dispose of according to federal, state, local, and OSHA regulations.

SECTION XIV: TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION

Proper shipping name: Corrosive liquid, N.O.S. (Zinc Chloride, Hydrochloric Acid)
 Hazard Class: 8
 ID & Packing Group Number: UN 1760, PG III
 ERG Guide Number: 60

TOXIC SUBSTANCE CONTROL ACT

- ALL COMPONENTS OF THIS COMPOUND ARE LISTED WITHIN TSCA INVENTORY

SECTION XV: REGULATORY INFORMATION

SARA Title III Program:

- This product contains the following toxic chemicals subject to the reporting requirements of EPCRA of 1986 and 40 CFR 372

CHEMICAL NAME	CAS NO.	COMPOSITION
Zinc Compounds	N/E	< 50%
Hydrochloric Acid	7647-01-1	< 20%

SECTION XVI: OTHER INFORMATION

This information must be included in all MSDS 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 Material Safety Data Sheets (MSDS) 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 MSDS 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.