

SAFETY DATA SHEET

GHS SDS Date: 04/21/2021

SDS Name: Kapp Golden Flux™ Paste for Aluminum Soldering 350–550°F / 177–288°C

SDS Number: 552 GHS

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SECTION I: PRODUCT AND COMPANY INFORMATION

Product Name: Kapp Golden Flux Paste for Aluminum Soldering 350–550°F / 177–288°C

Composition:

Component	CAS Number	ECHA Number
Aminoethylethanolamine	111-41-1	203-867-5
Zinc Oxide	1314-13-2	215-222-5
Ammonium Fluoroborate	13826-83-0	237-531-4

Company Identification: Kapp Alloy and Wire, Inc., 1 Klein Street / PO Box 1188, Oil City, PA 16301 USA

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**

Corrosive to metals (Category 1) H290.
Skin corrosion (Category 1B) H314
Skin sensitization (Category 1) H317
Serious eye damage (Category 1) H318
Reproductive toxicity (Category 1B) H360
Acute aquatic toxicity (Category 1) H400
Chronic aquatic toxicity (Category 1) H410



GHS05 Corrosion Eye Damage

H314 Causes severe skin burns and eye damage

H318 - Causes serious eye damage



GHS07 Skin Irritation

H302 – Harmful if swallowed.

H317 May cause an allergic skin reaction



GHS08 Health Hazard

H360 May damage fertility or the unborn child

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



GHS09 Aquatic Toxicity

H400 – Very toxic to aquatic life

H401 – Very toxic to aquatic life with long lasting effects.

Label Elements according to Regulation (EC) No. 1272/2008 and OSHA 29 CFR 1910

Hazard Pictograms:



GHS05



GHS07



GHS08



GHS09

Signal Word: **DANGER**

Hazard-determining components of labelling:

Aminoethylethanolamine, Zinc Oxide, Ammonium Fluoroborate

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Hazard Statements:

H290 May be corrosive to metals

H302 – Harmful if swallowed.

H314 Causes severe skin burns and eye damage

H317 May cause an allergic skin reaction

****H318 Causes serious eye damage**

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H360 May damage fertility or the unborn child

****H400 Very toxic to aquatic life**

H410 Very toxic to aquatic life with long lasting effects

****May be omitted from label due to presence of stricter statement.H302 Harmful if swallowed.****Precautionary Statements:**

P234 Keep only in original container

P261 Do not breathe mist, fumes, vapors, or spray

P264 Wash skin thoroughly after handling

P272 Contaminated work clothing should not be allowed out of the workplace

P273 Avoid release to the environment

P280 Wear protective gloves, eye protection, and face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or shower.

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P304+P340+P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor

P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing,

Immediately call a doctor.

P308+P313 If exposed or concerned: Get medical advice or attention

P333+P313 If skin irritation or rash occurs: Get medical advice or attention

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

P405 Store locked up

P501 Dispose of contents and/or container to an approved waste disposal plant

Other hazards:

PBT: Does not meet criteria for persistent – bio cumulative – toxic.

vPvB: Does not meet criteria for very persistent – very bio cumulative.

Target Organ Statement

- DANGER: CAUSES SEVERE BURNS TO SKIN, EYES, AND RESPIRATORY SYSTEM. HARMFUL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN.**

Effects of Chronic Exposure:

- Coughing, liver, and kidney effects; nausea, erythema. Osseous fluorosis due to fluoride.

SECTION III: COMPOSITION / INGREDIENTS

*(Hazardous components 1% or greater; Carcinogens 0.1% or greater). None of the materials in this product are listed in NTP, IARC, or OSHA as carcinogens.

COMPONENT	CAS NO.	ECHA NO.	SARA III	OSHA PEL	ACGIH TLV
Aminoethylethanolamine	111-41-1	203-867-5	-----	N/E	Hazard: Corrosive
Ammonium Fluoroborate*	13826-83-0	215-222-5	< 20%	2.5 mg/m ³ as F*	2.5 mg/m ³ as F*
Zinc Oxide	1314-13-2	237-531-4	< 10%	5.0 mg/m ³	5.0 mg/m ³

PEL = Permissible Exposure Limit; NA = Not Applicable; NE = Not Established; NAIF = No Applicable Information Found

***Ammonium Fluoroborate:**

- The PEL for fluoride as F is 2.5 mg/m³. Chronic fluoride absorption can result in osseous fluorosis, increased radiographic density of the bones and mottling of the teeth. Read OSHA 29 CFR 1910.1000, July 1, 1980, standard for fluorides.
- The PEL for boron oxide is: 10 mg/m³, B₂O₃ as a fume. This compound when used as intended will generate fumes of boron oxide. Contact your industrial hygiene department.

SECTION IV: FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation: If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

Skin: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most Important Symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in section 2 (labeling) Medical Conditions Generally Aggravated by Exposure: Any weakness of the lungs, kidneys or liver will be aggravated.

SECTION V: FIRE FIGHTING MEASURES

Flash point (°F): > 135°C / 275°F,
Flammability Limits: (in air, % by volume) LEL: 1.5, UEL: 10.0

Extinguisher Media: **Water, fog, foam, or dry chemical**

Special Fire Fighting Procedures Full protective equipment required. May release toxic ammonia, boron oxide, or fluoride fumes. Oxides of nitrogen. Wear self-contained breathing apparatus for firefighting if necessary.

Unusual Fire and Explosion Hazards Avoid splashing this material and solutions of it onto personnel. Hydrofluoric acid solution may be formed within water runoff. Decomposition may produce NO₂ fumes.

SECTION VI: ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. See section 8 for personal protection.

Environmental Precautions: Prevent further leakage or spillage if safe to do so.

In Case Material is spilled: First, neutralize with soda ash or sodium bicarbonate. Dilute with water and place in container for disposal according to local regulations.

SECTION VII: HANDLING AND STORAGE

Precautions to be taken in handling and storage:

- Store flux in original container at 35-80°F (2-27°C), keep container tightly closed & away from foodstuffs.
- Wash hands thoroughly after handling to remove any residue.
- No eating, drinking, or smoking while using this product.

Other Precaution / Special Handling:

- Do not breathe vapor, fumes, or mist. Professionally wash contaminated clothing before re-use.
- Existing lung disorders will have increased toxic susceptibility.

SECTION VIII: EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA Permissible Exposure Limit (PEL): 2.5 mg/m³

ACGIH Threshold Limit Value (TLV): 2.5 mg/m³

Engineering Controls: Use local exhaust ventilation to maintain air concentrations of vapors and fumes below occupational exposure standards.

Special Engineering Control Needs: Non-sparking

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate, use a respirator with multi-purpose combination (USA) or ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

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Protective Gloves: Handle with gloves. (Nitrile Rubber recommended) Gloves must be inspected prior to use. Use proper glove removal techniques (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good lab practices. Wash and dry hands after handling.

Eye Protection: Use appropriately fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (USA) or EN 166 (EU)

Body Protection: Chemical resistant rubber apron. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (@ 760 mmHg): N/A
 Solubility in Water (100 = complete): Freely Soluble 100
 Evaporation Rate (Butyl Acetate = 1): N/A
 Active Temperature Range: Active between 350–550°F / 177–288°C
 Percent volatiles by volume: N/A
 pH: 10-11
 Appearance and Odor: Gold to yellow paste with Ammonia odor
 Use: General purpose low temperature aluminum soldering flux, corrosive residue.

SECTION X: STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.
 Conditions to avoid: Excessive heat; decomposes forming corrosive, skin penetrating, toxic gases
 Incompatibility (materials to avoid): Cyanides, sulfides, strong oxidants.
 Hazardous Combustion / Decomposition: Toxic hydrofluoric acid, ammonia, NO₂, and boron tri-fluoride gases.

SECTION XI: TOXICOLOGY INFORMATION

Swallowing: Can cause damage to digestive system. Corrosive to mucous membranes. May cause salivation, nausea, vomiting, diarrhea, and abdominal pain. Fluoride ion can reduce serum calcium levels, possibly causing fatal hypocalcaemia. Systemic toxicity and shock.

Skin Absorption / Contact: None currently known. Fumes may penetrate / absorb into skin.

Inhalation: Highly irritating to respiratory system. Coughing & sneezing. Existing lung disorders will be aggravated. Inhalation may yield: chills, labored breathing, fevers, and unproductive cough. The fluoride ion may cause hypocalcaemia – calcium deficiency in the blood. Inflammation and necrosis of mucous membranes.

Eye Contact: Strong irritation to eyes, tearing, burn of eye surface, corrosive to eyes. May cause blindness.

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

IARC: No component of this product is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product is present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product is present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

SECTION XII: ECOLOGY INFORMATION**STATE RIGHT-TO-KNOW PROGRAMS:**

Pennsylvania: The following chemicals are listed in PA code Title 34, Hazardous Substance List: Aminoethylethanolamine, Ammonium Fluoroborate, Zinc Oxide

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California: This material contains no compounds subject to the reporting and/or labeling requirements of Proposition 65. More information at www.P65Warnings.ca.gov.

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

SECTION XIV: TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION: DOMESTIC GROUND
Proper shipping name: Corrosive Liquid, N.O.S.(Aminoethylethanolamine, Ammonium Fluoroborate)
Hazard Class: 8
ID & Packing Group Number: UN 1760, PG II
ERG Guide Number: 154

SECTION XV: REGULATORY INFORMATION

TOXIC SUBSTANCE CONTROL ACT: All components of this compound are listed within the TSCA inventory.

RoHS, REACH, and REACH-SVHC Compliance:

This Product is RoHS and REACH Compliant. This product is free of REACH-SVHC substances.

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.	CONCENTRATION
Zinc Compounds	7646-85-7	< 15%
Ammonium Fluoroborate	13826-83-0	< 30%

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

CERCLA

The following components of the product and their respective RQs are listed in 40 CFR 302:

- Ammonium Fluoroborate 13826-83-0 RQ = 5000 lbs.

California Prop65: This material contains no compounds subject to the reporting and/or labeling requirements of Proposition 65. More information at www.P65Warnings.ca.gov.

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.