

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product identifier

Product name: AMCO Blitz

Other means of identification

Product code: 228

Recommended use of the chemical and restrictions on use

Recommended use: General purpose soft soldering flux, corrosive residue

Details of the supplier of the safety data sheet

Manufacturer: Force Industries Division.
28 Industrial Blvd. Paoli, PA 19301.

Emergency Telephone number

For hazardous materials incidents only, call CHEMTREC Emergency Response Number:

1-800-424-9300.

For all other questions about this product, call Force Industries Division at 610-647-3575.

Revision Date: July 20, 2016

Supersedes: March 9, 2016

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute Toxicity Oral (Category 4), H302

Skin Corrosion (Category 1B), H314

Serious Eye Damage (Category 1), H318

Acute Aquatic Toxicity (Category 1), H400

Chronic Aquatic Toxicity (Category 1), H410

Specific target organ toxicity – single exposure (Category 3), Respiratory System

Corrosive to metals (Category 1)

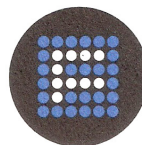
Hazard statement(s)

H290: May be corrosive to metals

H302: Harmful if swallowed

H314: Causes severe skin burns and eye damage

H318: Causes serious eye damage



H319: Causes serious eye irritation
 H335: May cause respiratory irritation
 H410: Very toxic to aquatic life with long-lasting effects
 H411: Toxic to aquatic life with long-lasting effects

2.2 GHS Label elements, including precautionary statements

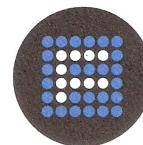
Emergency overview

Appearance:	Water clear
Physical state:	Liquid
Odor:	None
Signal Word:	Danger



Precautionary statement(s)

P234: Keep only in original container
 P260: Do not breathe dust.
 P261: Avoid breathing dust/fumes/gas/mist/vapors/spray
 P264: Wash skin thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area
 P273: Avoid release to the environment.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312+P330+P331: IF SWALLOWED: Immediately call a POISON CENTER or physician, rinse mouth and DO NOT induce vomiting.
 P302+P352: IF ON SKIN: Wash with plenty of water
 P303+P361+P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P304+P340+P311+P310: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.
 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. Contact a physician
 P321: Specific treatment see section 2.3
 P332+P313: If skin irritation occurs: Get medical advice/attention
 P337+P313: If eye irritation persists: Get medical advice/attention.
 P362: Take off contaminated clothing
 P363: Wash contaminated clothing before reuse.
 P391: Collect spillage.
 P403+P233: Store in a well ventilated place and keep container tightly closed.



P405: Store locked up.

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No.</u>	<u>EINECS No.</u>	<u>Weight %</u>
Zinc Chloride	7646-85-7	231-592-0	20-40%
Ammonium Chloride	12125-02-9	235-186-4	1-10%
2-aminoethanol hydrochloride	2002-24-6	217-900-6	1-10%
Hydrochloric acid	7647-01-0	231-595-7	1-10%
Glycerin	56-81-5	200-289-5	1-10%

Others, if any, are non-hazardous and claimed as trade secret.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

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

Skin: Wash off with plenty of water. Consult a doctor if a rash or burn develops.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center. Give large quantities of water, milk, or 5% sodium bicarbonate solution.



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

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas, Zinc/zinc oxides. Toxic metal halide fumes produced. Dense smoke may be generated.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary. Full protective equipment required.

5.4 Further information

No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3 Methods and materials for containment and cleaning up

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

6.4 Reference to other sections

For disposal see section 13.



SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Professionally wash contaminated clothes before re-use. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store flux at ambient conditions. Wash thoroughly after handling to remove all residue.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Components	OSHA TWA
Zinc Chloride	1 mg/m ³
Ammonium Chloride	10 mg/m ³
Hydrochloric Acid	2 ppm TLV
Glycerine	10 mg/m ³ TLV 5 mg/m ³ Limits for Air Contaminants

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection



Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (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 laboratory practices. Wash and dry hands.

Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. O

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state:	Pale yellow solution
Odor:	None
Flash point:	N/E
Vapor pressure:	N/E
Vapor density:	N/E
Boiling Point:	>212 °F
Specific gravity:	1.38 (H ₂ O = 1 at 72°F)
Solubility in water:	Appreciable
Evaporation Rate (butyl acetate = 1)	<1

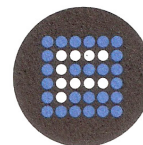
9.2 Other safety information

None

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

No data available

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10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Acid may react with metals to produce explosive gas

10.6 Hazardous decomposition products

Carbon dioxide, water, hydrochloric acid, ammonia, oxides of nitrogen, zinc oxide

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Component toxicity

Components	LC50/Inhalation	LC50/Dermal/Rat	LD50/Oral/Rat
Zinc Chloride	No data available	No data available	350 mg/kg
Ammonium Chloride	No data available	No data available	1,650 mg/kg
Glycerine	No data available	>10,000 mg/kg/	12,600 mg/kg
2-aminoethanol hydrochloride	No data available	4,053 mg/kg/mouse	No data available

11.2 Effects of Acute Overexposure:

- Inhalation: No data available.
- Eyes: Rabbit – Result: Corrosive to eyes (HCl)
- Skin Contact: Rabbit – Result: Causes burns (HCl)
- Ingestion: No data available.

11.3 Primary Route of Exposure:

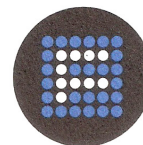
No data available

11.4 Effects of Chronic Exposure:

No data available.

11.5 Target Organs:

No data available

**11.6 Reproductive Effects**

No data available

11.7 Carcinogenicity:

No data available

SECTION 12: ECOLOGICAL INFORMATION**12. ECOLOGICAL INFORMATION****12.1 Toxicity**

Components	LC50/96hr/48hr/24hr	EC50/96/48hr/24hr	Bioaccumulation Concentration Factor	No Observable Effect Concentration/96hr/48hr/24 hr
Zinc Chloride	0.4 - 2.2 mg/L (carp)	0.2 mg/L (flea)	No data available	No data available
Ammonium Chloride	209 mg/L (carp) 3.98 mg/L (rainbow trout)	No data available	No data available	No data available
Hydrochloric Acid	282 mg/l (mosquito fish)	No data available	No data available	No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

BCF: 21,000 (Zinc chloride)

12.4 Mobility in soil

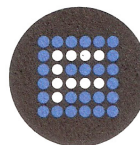
No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.



SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: offer surplus and non-recyclable solutions to a licensed disposal company. Dispose of in accordance with all federal, state, and local regulations.

Contaminated packaging

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

DOT (US)

UN/ID No. UN1760

Packing Group: III

Hazard Class: 8

Proper shipping name: Corrosive liquid, N.O.S. (Zinc Chloride, Hydrochloric Acid)

ERG Guide Number: 154

Marine pollutant (Yes/No) YES

Unless your shipments qualify for an exemption, you must mark the products with the marine pollutant mark and add the words "Marine Pollutant" to the product's basic description on your bill of lading.

IMDG

UN/ID No. UN1760

Packing Group: III

Hazard Class: 8

Proper shipping name: Corrosive liquid, N.O.S. (Zinc Chloride, Hydrochloric Acid)

ERG Guide Number: 154

Marine pollutant (Yes/No) YES

IATA

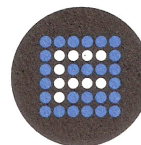
UN/ID No. UN1760

Packing Group: III

Hazard Class: 8

Proper shipping name: Corrosive liquid, N.O.S. (Zinc Chloride, Hydrochloric Acid)

ERG Guide Number: 154

**SECTION 15: REGULATORY INFORMATION****International Inventories**

USA (TSCA): Complies

Federal Regulations**SARA Title III 313 Reportable Substances**

This product contains the following chemicals which are subject to the reporting requirements of the Act and of Title 40 of the Code of Federal Regulations, Part 372

Chemical	CAS #	% by Weight
Zinc Compounds	N982	30-40
Hydrochloric Acid	7647-01-0	1-10

SARA Title III Section 311/312 Hazard Categories:

Acute Health Hazard
Chronic Health Hazard

CERCLA Section 103

This product contains the following substances which are subject to CERCLA Section 103 reporting requirements and which are listed on 40 CFR 302.4

Zinc Chloride
Ammonium Chloride

Toxic Substance Control Act (TSCA)

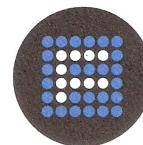
If listed below, non-proprietary substances are subject to export notification Section 12 (b) of TSCA:

None

State Regulations (RTK)**Massachusetts Right to Know Components**

Component	CAS No.
Zinc Chloride	7646-85-7
Ammonium Chloride	12125-02-9
Hydrochloric Acid	7647-01-0
Glycerol	56-81-5

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Pennsylvania Right to Know Components

Component	CAS No.
Zinc Chloride	7646-85-7
Ammonium Chloride	12125-02-9
2-aminoethanol hydrochloride	2002-24-6
Hydrochloric Acid	7647-01-0
Glycerol	56-81-5

New Jersey Right to Know Components

Component	CAS No.
Zinc Chloride	7646-85-7
Ammonium Chloride	12125-02-9
2-aminoethanol hydrochloride	2002-24-6
Hydrochloric Acid	7647-01-0
Glycerol	56-81-5

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION

HMIS:

Health: 2

Flammability: 1

Reactivity: 0

PREPARATION INFORMATION: Technical Service Department, Force Industries Division

DISCLAIMER: The data set forth in these sheets are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. Force Industries makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereon. Force Industries warrants only that its products conform to their published specifications and no other express warranty is made with regards thereof. We do not guarantee favorable results, and we assume no liability in connection with the use of the products. They are intended for use by persons having technical skill and knowledge, at their own discretion and risk.