

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Product Name: AMCO 322 SPECIAL CAS number: N/A - mixture
Chemical Name & Synonyms: N/A - mixture
Appearance: Rectangular sticks, pressed from fine, gray powder with no noticeable odor.
Use: Galvanizing repair material.
Manufacturer: Force Industries Division Tel. 610-647-3575
EMERGENCY PHONE No. CALL CHEMTREC (800) 424-9300 * Available 24 Hours

II. CHEMICAL COMPOSITION

Material	SARA III	CAS Number	OSHA PEL	ACGIH TLV
Zinc chloride	----- 7646-85-7	1.0 mg/m ³	1 mg/m ³	
Zinc oxide	-----	1314-13-2	5.0 mg/m ³	1.00 mg/m ³
Sodium fluoride	-----	7681-49-4	2.5 mg/m ³ as F	2.50 mg/m ³
Ammonium chloride	-----	12125-02-9	10 mg/m ³	
Zinc	-----	7440-66-6	-----	5.00 mg/m ³
Tin	-----	7440-31-5	-----	2.00 mg/m ³
Lead - *SEE WARNING BELOW*	-----	7439-92-1	-----	0.15 mg/m ³

WARNING: LEAD POISONING HAZARD.

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

Hazard Rating: HMIS: (H=3 F=0 R=0 PE=C) NFPA: (H=3 F=0 R=0)

III. POTENTIAL HEALTH EFFECTS AND HEALTH HAZARD DATA

Target organ statement: DANGER: Causes severe burns to skin and eyes. Harmful if inhaled, swallowed.
Effects of Chronic Exposure: Lead poisoning. Dermatitis and contact burns to skin, eyes, and respiratory system.
Effects of Acute Overexposure
Swallowing: Can cause damage to digestive system. Corrosive to mucous membranes.
Skin Absorption: Not currently known to be absorbed through the skin.
Skin Contact: Contact can cause dermatitis, possible chemical burns, and corrosive to skin. Existing disorders will be aggravated.
Inhalation: Irritation to respiratory system. Coughing and sneezing. Existing lung disorders will be aggravated.
Eye Contact: Irritation to eyes, tearing, burn of eye surfaces, corrosive to eyes. May cause blindness.

IV. EMERGENCY AND FIRST AID PROCEDURES

Swallowing: Call a physician at once or your Poison Control Center. Contains LEAD. Corrosive to tissues.
Skin: Promptly flush with water to remove all residues. If rash or burn develops, consult a physician. Material is corrosive.
Inhalation: Remove to fresh air. If fumes are inhaled, call a physician.
Eyes: Flush with water for at least 15 minutes to remove all residues. Get medical help. Blindness can result.

V. FIRE AND EXPLOSION DATA

Flash point (°F): N/A
Flammable limits in air: LOWER: N/A UPPER: N/A (% by volume)
Extinguishing media: Does not support combustion. Be aware of other materials in surrounding area to determine if water, fog, foam or CO₂ may be used.
Special fire fighting procedures: Full protective equipment required. May release ammonia, zinc oxide and HCl fumes. Toxic metal halide fumes produced.
Unusual fire and explosion hazards: Dense smoke may be generated.

VI. REACTIVITY INFORMATION

Stability considerations/Conditions to avoid: Stable/ None
Hazardous polymerization/Conditions to avoid: Will not occur/None
Incompatibility/Materials to avoid: Strong nitric, sulfuric acids, cyanide
Hazardous combustion or Decomposition products: In presence of water and heat, NH₃, HCl and ZnO₂.

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VII. SPILL AND LEAK RESPONSE

Steps to be taken if material is released or spilled: If molten allow to solidify, contain, absorb, sweep-up and dispose. Flush area to chemical sewer.

Waste disposal method: Dispose of in accordance with all local, state, and federal regulations.

VIII. SPECIAL PROTECTION INFORMATION

Respiratory protection: If the work station is not properly ventilated to exhaust all fumes and dusts, use a NIOSH approved mask.

Ventilation: Maintain air flow away from user to remove all fumes and dusts, so that the PEL is never exceeded. Adhere to environmental regulations for exhausts.

Protective gloves: Chemical and acid impervious.

Eye protection: Chemical tight safety goggles. Do NOT wear contact lenses.

Other protective equipment: Full protective equipment normally used in a galvanizing operation 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. Personal Protective Equipment
29 CFR 1910.251 - 29 CFR 1910.257. Welding, Cutting and Brazing

IX. STORAGE, HANDLING AND SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Store material at ambient conditions. Keep under extremely dry and controlled conditions. Wash thoroughly after handling to remove all residue.

Other precautions: Do not breathe fumes. Professionally wash contaminated clothing before reuse. Material will naturally absorb moisture and cake solid. Existing lung disorders will have increased toxic susceptibility.

X. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F @ 760 mmHg):	N/A	Specific gravity (H ₂ O = 1 @ 72°F):	4.48
Percent volatiles by volume:	N/A	Solubility in water:	Nil
Evaporation rate (butyl acetate = 1):	N/A		

XI. OPTIONAL INFORMATION

Department of Transportation: DOMESTIC GROUND

Proper shipping name: Zinc chloride, anhydrous mixture

Hazard Class: Class 8

ID & Packing Group Number: UN 2331, PG III, RQ (Lead)

ERG Guide Number: 154

Toxic Substance Control Act: All active components of this compound are listed within the TSCA inventory.

SARA Title III Program: This product contains the following toxic chemicals subject to the reporting requirements of EPCRA of 1986 and 40 CFR 372. This information must be included in all products that are copied and distributed for this material.

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
Zinc Compounds	N/A	< 12%
Zinc	7440-66-6	< 55%
Lead	7439-92-1	< 15%
Tin	7440-31-5	< 20%

State Right-to-Know Programs:

Pennsylvania: This product contains the following chemicals listed in PA Code Title 34, Hazardous Substance List: Zinc chloride, zinc, tin and lead.

California: This product contains the following compounds subject to the reporting and labeling requirements of Proposition 65: Lead

Miscellaneous: This product contains the following marine pollutants listed under 49 CFR 172.101 Appendix B: Lead

NOTES: NA=Not Applicable NE=Not Established H=Health F=Fire R=Reactivity PE=Personal Equipment
While we believe all information presented herein is accurate and reliable, the data are not to be taken as a guarantee or representation of any kind for which Force Industries assumes legal responsibility. They are offered solely for your consideration, investigation, and verification.