

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Product Name: AMCO 321 CAS number: N/A - mixture
Chemical Name & Synonyms: N/A - mixture
Appearance: Fine, gray powder with no noticeable odor.
Use: Galvanizing repair material.
Manufacturer: Force Industries Division. 28 Industrial Blvd. Paoli, PA 19301 Tel. 610-647-3575
EMERGENCY PHONE No. CALL CHEMTREC (800) 424-9300 * Available 24 Hours

II. CHEMICAL COMPOSITION

<u>Material</u>	<u>SARA III</u>	<u>CAS Number</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Zinc Chloride	< 30.0%	7646-85-7	1 mg/m ³	
Ammonium Chloride	< 15.0%	12125-02-9	10 mg/m ³	10 mg/m ³
Tin	< 25.0%	7440-31-5	2.00 mg/m ³	2.00 mg/m ³
Zinc	< 30.0%	7440-66-6	5.00 mg/m ³	10 mg/m ³
Lead	< 15.0%	7439-92-1	0.05 mg/m ³	0.05 mg/m ³

WARNING: **LEAD POISONING HAZARD!** The use of this solder to make joints or fittings in any private or public potable water system is PROHIBITED. Read and comply with OSHA 29 C.F.R. 1910.1025!

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: May cause severe burns to skin and eyes. Harmful if inhaled, swallowed or absorbed through the skin.

Effects of Chronic Exposure: Lead poisoning. Dermatitis and contact burns to eyes, skin, and respiratory system.

Effects of Acute Overexposure

Swallowing: Lead poisoning. Can cause damage to digestive system. Corrosive to mucous membranes.

Skin Absorption: None currently known.

Inhalation: Irritation to respiratory system. Coughing and sneezing. Existing lung disorders will be aggravated.

Skin Contact: Dermatitis, possible chemical burns, corrosive to skin. Existing disorders will be aggravated.

Eye Contact: Irritation to eyes, tearing, burns of eye surfaces. May cause blindness

IV. EMERGENCY AND FIRST AID PROCEDURES

Swallowing: Call a physician or your Poison Control Center at once. Contains LEAD.

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 working fumes are inhaled, call a physician.

Eyes: Flush with water for at least 15 minutes to remove all residues. Get medical help.

V. FIRE AND EXPLOSION DATA

Flashpoint (°F): N/A

Flammable limits in air (% by volume): LOWER: N/A UPPER: N/A

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 firefighting procedures: Full protective equipment required. May release ammonia, zinc oxide and HCl. 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 acids, nitric, sulfuric acids, cyanide

Hazardous combustion or decomposition products: In presence of water and heat, ammonia, HCl and Zinc oxide.

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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 federal, state, and local 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

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. Wash thoroughly after handling to remove all residue.

Other precautions: Do NOT breathe fumes. May be fatal! Professionally wash contaminated clothing before re-use. 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):	3.91
Percent volatiles by volume:	N/A	Solubility in water:	Insoluble
Evaporation rate (butyl acetate = 1):	N/A	VOC:	Nil

XI. OPTIONAL INFORMATION

Department of Transportation: Domestic Ground

Proper shipping name: Zinc Chloride, anhydrous mixture

Hazard Class: 8

ID & Packing Group No. UN 2331, PG III, RQ (Lead)

ERG Guide Number: 154

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

Hazard Communication Program: Hazardous warnings and training requirements as mandated for corrosive and lead-containing powders. (29 CFR 1910.1200)

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 MSDS that are copied and distributed for this material.

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
Zinc chloride	7646-85-7	< 30%
Tin	7440-31-5	< 25%
Lead	7439-92-1	< 15%
Zinc	7440-66-6	< 30%

State Right-to-Know Programs:

Pennsylvania: This product contains the following chemicals listed in PA Code Title 34, Hazardous Substance List: Zinc chloride, tin, zinc, 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: None

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.