

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Product Name: AMCO 95/5 PASTE SOLDER CAS number: N/A - mixture
Chemical Name & Synonyms: N/A - mixture
Appearance: Gray paste with no noticeable odor
Use: General purpose soldering flux, corrosive residue.
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	1.00 mg/m ³
Ammonium chloride	--	12125-02-9	10 mg/m ³	10 mg/m ³
Zinc oxide	--	1314-13-2	5 mg/m ³	5 mg/m ³
Tin	--	7440-31-5	2 mg/m ³	2 mg/m ³
Antimony	--	7440-36-0	0.50 mg/m ³	

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 or absorbed through skin.

Effects of Chronic Exposure: Dermatitis and contact burns to skin, eyes, and respiratory system. Scarring of skin tissues. See target organ statement.

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.

Inhalation: Irritation to respiratory system. Coughing, chest pains, nausea and headaches. Existing lung disorders will be aggravated.

Skin contact: Contact can cause dermatitis; possible chemical burns, corrosive to skin. Existing disorders will be aggravated.

Eye Contact: Irritation to eyes, tearing, burn of eye surfaces, and corrosive to eyes.

IV. EMERGENCY AND FIRST AID PROCEDURES

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

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

Inhalation: Remove to fresh air. If fumes are inhaled, call a physician. Overinhalation may cause life threatening lung injury.

Eyes: Flush with water for at least 15 minutes to remove all residue. Get medical help. Blindness can result.

V. FIRE AND EXPLOSION DATA

Flash point (°F): >230

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

Extinguishing media: Water, fog, or foam

Special fire fighting procedures: Full protected equipment required. May release ZnO and HCl fumes.

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

Hazardous combustion or decomposition products: In presence of water and heat, HCl and ZnO.

VII. SPILL AND LEAK RESPONSE

Steps to be taken if material is released or spilled: 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.

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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 braze/welding 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 flux at ambient conditions, keep under extremely dry and controlled conditions. Wash thoroughly after handling to remove all residue.
Other precautions: Do not breath fumes. May be fatal. Professionally wash contaminated

X. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F @ 760 mmHg): ~212 Specific gravity (H₂O = 1 @ 72°F): 3.55
Percent volatiles by volume: N/E Solubility in water: Partly
Evaporation rate (butyl acetate = 1): N/A

XI. OPTIONAL INFORMATION

Department of Transportation: DOMESTIC GROUND
Proper shipping name: Zinc Chloride Solution Mixture
Hazard Class: 8
ID & Packing Group Number: UN 1840 PG III
ERG Guide Number: 154

Toxic Substance Control Act: All active components of this compound are listed within the TSCA.
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 Compounds	7646-85-7	<12%
Tin	7440-31-5	<75%
Antimony	7440-36-0	<5%

Hazard Communication Program: Hazard warnings and training requirements as mandated for contact irritants.

State Right-to-Know Programs:
Pennsylvania: This product contains the following chemicals listed in PA Code Title 34, Hazardous Substance List: zinc chloride, zinc oxide and ammonium chloride.
California: This product contains the following compounds subject to the reporting and labeling requirements of Proposition 65: None
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.