

# MATERIAL SAFETY DATA SHEET

## I. PRODUCT IDENTIFICATION

Product Name: AMCO 341 CAS number: N/A - mixture  
Chemical Name & Synonyms: N/A - mixture  
Appearance: White powder with no characteristic odor  
Use: Aluminum dip brazing flux.  
Manufacturer: Force Industries Division Tel. 610-647-3575  
EMERGENCY PHONE No. Transportation: CALL CHEMTREC (800) 424-9300 \* Available 24 Hours  
Medical: 610-647-3575

## II. CHEMICAL COMPOSITION

<u>Material</u>	<u>SARA III</u>	<u>CAS Number</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Aluminum Fluoride	No	7784-18-1	-----	2.5 mg/m <sup>3</sup>
Lithium Chloride	No	7447-41-8	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>

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

Note: Chronic fluoride absorption can result in ossious fluorosis, increased radiographic density of the bones and mottling of the teeth. Read OSHA 29 C.F.R. 1910.1000, July 1, 1980, (standard for fluoride).

Note: Exposure to Lithium is relatively non-hazardous per two NIOSH studies HHE 80-036-422 and HHE 77-59-496. Chronic exposure to Lithium may result in neuromuscular effects, hyperactive reflexes, and weight loss. Consult your industrial hygiene department.

Hazard Rating: HMIS: (H =2 F=0 R=0 PE=C) NFPA: (H=2 F=0 R=0)

## III. POTENTIAL HEALTH EFFECTS AND HEALTH HAZARD DATA

Target organ statement: Caution. Harmful if swallowed or inhaled, causes eye and skin burns.

Effects of Chronic Exposure: Coughing, erythema, nausea, and kidney effects.

Effects of Acute Overexposure

Swallowing: Nausea, vomiting. Can cause chemical burn to digestive system and toxic effects due to Lithiumion.

Skin Absorption: Not known to be absorbed by the skin. Dermatitis, possible chemical burn. Existing skin disorders may be aggravated

Inhalation: Irritant to respiratory system. Lithium dust and fumes are absorbed through the lungs. Lung damage. Pre-existing lung disorders will be aggravated.

Eye Contact: Irritation/possible burn to eye surfaces.

## IV. EMERGENCY AND FIRST AID PROCEDURES

Swallowing: Lithium and fluoride present. Call a physician, or your Poison Control Center.

Skin: Wash hands with water to remove all residue. If rash develops, consult a physician.

Inhalation: Remove to fresh air. If fumes, vapors, or dusts are inhaled, call a physician.

Eyes: Flush with water for at least 15 minutes to remove all residue. Promptly get medical help.

## V. FIRE AND EXPLOSION DATA

Flashpoint (°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 CO<sub>2</sub> may be used

Special firefighting procedures: Metal halide and toxic fumes produced, use self-contained breathing apparatus.

Unusual fire and explosion hazards: None

## 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, cyanides, and sulfides. Heat may be liberated when moistened with water.

Hazardous combustion or decomposition products: In presence of water and heat, HCl and HF may be given off.

# MATERIAL SAFETY DATA SHEET

## VII. SPILL AND LEAK RESPONSE

Steps to be taken if material is released or spilled: Contain spill, absorb, sweep-up. Remove to chemical sewer. 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, vapors, and dusts, use a NIOSH approved mask.  
Ventilation: Maintain air flow away from user to remove all fumes, vapors, and dusts, so that the PEL is never exceeded.  
Protective gloves: Chemical and oil impervious.  
Eye protection: Chemical tight safety goggles. No 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: Wash hands thoroughly after handling to remove all residue. Store material under ambient conditions.  
Other precautions: Remove and professionally wash contaminated clothing before re-use.

## X. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F @ 760 mmHg):	N/A	Bulk Density (lbs.cu.ft.)	61.8
Percent volatiles by volume:	N/A	Solubility in water:	Appreciable
Evaporation rate (butyl acetate = 1):	N/A		

## XI. OPTIONAL INFORMATION

Department of Transportation: DOMESTIC GROUND  
Proper shipping name: Not a regulated product  
Hazard Class: N/A  
ID & Packing Group Number: N/A  
ERG Guide Number: N/A

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 contact irritants. (29 CFR 1910.1200)

State Right-to-Know Programs:

Pennsylvania: This product contains the following chemicals listed in PA Code Title 34, Hazardous Substance List: Fluoride, CAS No. 16984-48-8

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  
H=Health

NE=Not Established  
F=Fire

PE=Personal Equipment  
R=Reactivity

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.