

# MATERIAL SAFETY DATA SHEET

## I. PRODUCT IDENTIFICATION

Product Name: AMCO 4590 CAS number: N/A - mixture  
Chemical Name & Synonyms: N/A - mixture  
Appearance: Water white to off-white liquid with no characteristic odor.  
Use: Battery lug casting/soldering flux.  
Manufacturer: Force Industries Division 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>
Water	No	7732-18-5	-----	-----
Glycerine	No	56-81-5	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>

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

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

## III. POTENTIAL HEALTH EFFECTS AND HEALTH HAZARD DATA

Target organ statement: Possible eye, skin and respiratory irritation.  
Effects of Chronic Exposure: Increased fat level - blood (glycerine)  
Effects of Acute Overexposure  
Swallowing: Small amounts not likely to cause injury. Large amounts may cause injury. Central nervous system effects and increased blood sugar levels may result.  
Skin Absorption: Absorption of materials other than water not likely.  
Inhalation: Glycerine, if isolated, may pose mist, 10 mg/m<sup>3</sup>, limitation and lung irritation. When dried, solids may present nuisance dust, 10 mg/m<sup>3</sup> total, condition.  
Skin Contact: Slight possible skin irritant.  
Eye Contact: Possible irritation to eye surfaces.

## IV. EMERGENCY AND FIRST AID PROCEDURES

Swallowing: Drink water, induce vomiting. Call a physician immediately.  
Skin: Wash thoroughly with water to remove all residue. If rash develops, consult a physician.  
Inhalation: Remove to fresh air. If fumes are inhaled, call a physician.  
Eyes: Flush with water for at least 15 minutes to remove all residue. Get medical assistance.

## V. FIRE AND EXPLOSION DATA

Flashpoint (°F): > 230, TCC  
Flammable limits in air LOWER: N/A UPPER: N/A (% by volume)  
Extinguishing media: CO<sub>2</sub>, dry chemical, foam  
Special firefighting procedures: Use NIOSH/MSHA approved self-contained breathing apparatus where this material is involved in a fire.  
Unusual fire and explosion hazards: None

## VI. REACTIVITY INFORMATION

Stability considerations/Conditions to avoid: Stable/Oxidizers  
Hazardous polymerization/Conditions to avoid: Will not occur/None  
Incompatibility/Materials to avoid: Oxidizers  
Hazardous combustion or Decomposition products: Minor amounts of hydrogen chloride, hydrogen cyanide and carbon monoxide.

## VII. SPILL AND LEAK RESPONSE

Steps to be taken if material is released or spilled: Contain spill, absorb, sweep-up, dispose. Flush area to chemical sewer.  
Waste disposal method: Dispose of in accordance with all local, federal, and state regulations.

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## VIII. SPECIAL PROTECTION INFORMATION

Respiratory protection: The workstation must be ventilated to remove all dusts, fumes, and vapors. The use of a NIOSH approved mask for total protection may be necessary.

Ventilation: Maintain airflow away from user to remove all dusts, fumes, and vapors to that the PEL is not exceeded.

Protective gloves: Chemical impervious.

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

Other protective equipment: Full protective equipment normally used in a soldering operation so as to prevent any contact.

## IX. STORAGE, HANDLING AND SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Wash hands thoroughly after handling to remove all residue. Store flux in sealed containers under ambient conditions. Remove and professionally wash contaminated clothing before re-use.

## X. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point (°F @ 760 mmHg): ~212 (water) Specific gravity (H<sub>2</sub>O = 1 @ 72°F): 1.095  
Vapor pressure: N/A Solubility in water: Complete

## XI. OPTIONAL INFORMATION

Department of Transportation: DOMESTIC GROUND  
Proper shipping name: Not a regulated product  
Hazard Class: N/A  
ID & Packing Group No. N/A  
ERG Guide Number: N/A

Toxic Substance Control Act: All 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 MSDS that are copied and distributed for this material.

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
None	None	None

State Right-to-Know Programs:

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

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.