

# MATERIAL SAFETY DATA SHEET

## I. PRODUCT IDENTIFICATION

Product Name: AMCO 158 CAS number: N/A - mixture  
Chemical Name & Synonyms: N/A - mixture  
Appearance: Fine, gray powder with no noticeable odor.  
Use: Cast iron flux for repairing cracks and blow holes in castings.  
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	< 25.0%	7646-85-7	1.0 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Zinc ammonium chloride	< 60.0%	52628-25-8	-----	1.68 mg/m <sup>3</sup>
Tin	< 6.0%	7440-31-5	-----	2.00 mg/m <sup>3</sup>
Zinc	< 6.0%	7440-66-6	-----	5.00 mg/m <sup>3</sup>
Lead - *SEE WARNING BELOW*	< 6.0%	7439-92-1	-----	0.15 mg/m <sup>3</sup>
Iron oxide	-	1309-37-1	-----	5.00 mg/m <sup>3</sup>
Sodium fluoride	-	7681-49-4	2.5 mg/m <sup>3</sup> as F	2.50 mg/m <sup>3</sup>
Zinc oxide	< 10.0%	1314-13-2	5.0 mg/m <sup>3</sup>	1.00 mg/m <sup>3</sup>

### **WARNING: LEAD POISONING HAZARD**

Read and comply with OSHA 29 C.F.R. 1910.1025! See also Section XI "Miscellaneous."

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 the skin.

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: 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, burn of eye surfaces, corrosive to eyes. May cause blind

## IV. EMERGENCY AND FIRST AID PROCEDURES

Swallowing: Call a physician at once or your Poison Control Center. Contains LEAD. May be fatal! **Corrosive** to tissues!

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.

Eyes: Flush with water for at least 15 minutes to remove all residue. Get medical help NOW! 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: Use appropriate media for surrounding fire.

Special fire fighting method: Full protective equipment required. May release zinc oxide and HCl fumes. Toxic metal halide fumes produced.

Unusual fire and explosion hazards: Dense smoke may be generated.

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## 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 - HCl and zinc oxide.

## VII. SPILL AND LEAK RESPONSE

Steps to be taken if material is released or spilled: If molten allowed 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 method: Full protective equipment normally used in a galvanizing operation so as to prevent any contact.

## 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 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 <sub>2</sub> O = 1 @ 72°F):	3.40
Vapor density (air = 1):	N/A	Vapor pressure:	N/A
Percent volatiles by volume:	N/A	Solubility in water:	
Evaporation rate (butyl acetate = 1):	N/A		

## XI. OPTIONAL INFORMATION

Department of Transportation: DOMESTIC GROUND  
Proper shipping name: Corrosive Solid, N.O.S.(Zinc chloride; Sodium fluoride)  
Hazard Class: Class 8  
ID & Packing Group Number: UN 1759, 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.

### State Right-to-Know Programs:

Pennsylvania: This product contains the following chemicals listed in PA Code Title 34, Hazardous Substance List: All components  
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 < 6%

NOTES: NA=Not Applicable NE=Not Established  
H=Health F=Fire R=Reactivity PE=Personal Equipment

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