



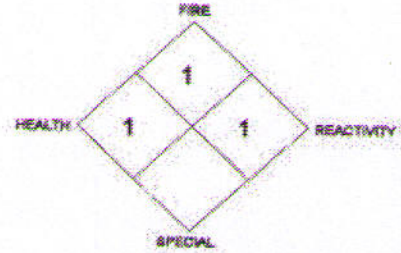
34600 Solon Road • Solon, Ohio 44139-2695  
 (440) 248-0100 • Fax: (440) 248-0723

24 Hour Response  
 Chem Tel (1-800-255-3924)

## MATERIAL SAFETY DATA SHEET

### NFPA HAZARD RATING

- 4 EXTREME
- 3 HIGH
- 2 MODERATE
- 1 SLIGHT
- 0 INSIGNIFICANT



PAGE: 1 OF 3

**PRODUCT FAMILY: CADWELD® STARTING MATERIAL**

**NOTE: THIS MATERIAL IS NOT SOLD SEPARATELY.**

DATE PREPARED: 3/28/90

REVISED: 3/03/04

MSDS: 328I

### 1. INGREDIENTS

INGREDIENTS	CAS #	EXPOSURE LIMITS (mg/m <sup>3</sup> )		WEIGHT PERCENT	TSCA INV.
		OSHA PEL	ACGIH TLV		
ALUMINUM	7429-90-5	TOTAL DUST 15.0 RESPIRABLE FRACTION 5.0	DUST 10.0 FUME 0.2	NOT > 45% FUME OR DUST	YES
CUPROUS OXIDE CUPRIC OXIDE	1317-39-1 1317-38-0	1.0 DUST 0.1 FUME	1.0 DUST 0.2 FUME	NOT > 25% NOT > 25%	YES
IRON OXIDE	1317-61-9	10.0	10.0	NOT > 20%	YES

### 2. PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: N/A  
 VAPOR PRESSURE: N/A  
 VAPOR DENSITY: N/A  
 SOLUBILITY IN WATER: Insoluble  
 SPECIFIC GRAVITY (H<sub>2</sub>O=1): 4.0  
 MELTING POINT: @ 660°C (1220°F)  
 EVAPORATION RATE (BUTYL ACETATE=1): N/A  
 APPEARANCE AND ODOR: Silvery, Gray Powder, Odorless

**MATERIAL SAFETY DATA SHEET**

ERICO, INC.

34600 Solon Road

Solon, Ohio 44139

(440) 248-0100

PAGE: 2 OF 3

**PRODUCT FAMILY: CADWELD® STARTING MATERIAL**

**NOTE: THIS MATERIAL IS NOT SOLD SEPARATELY.**

DATE PREPARED: 3/28/90

REVISED: 3/03/04

MSDS: 3281

**3. FIRE AND EXPLOSION HAZARD DATA**

FLASH POINT (METHOD USED): Self ignites above 455°C (850°F) (Indirect Heating).

FLAMMABLE LIMITS: LEL - 40 MG/L (Aluminum) UEL - N/A

EXTINGUISHING MEDIA: None

SPECIAL FIRE FIGHTING PROCEDURES: Halogenated extinguishing agents or water should not be used. Let fire extinguish itself. (See Unusual Fire & Explosion Hazards.) Use self-contained breathing apparatus, in pressure demand mode.

UNUSUAL FIRE AND EXPLOSION HAZARD: Starting material dust may be ignited by static charge and burns at extremely high temperature. In bulk form, it is ignitable with difficulty, (see Flash Point).

**4. REACTIVITY DATA**

STABILITY: Stable

CONDITIONS TO AVOID: Temperatures above ignition.

INCOMPATIBILITY (MATERIALS TO AVOID): Will react with moisture, mineral acids, halogenated compounds, and harsh alkalis. Material capable of causing sparks or accumulating strong static charges, should NOT be used.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: None

HAZARDOUS POLYMERIZATION: Will not occur.

**5. HEALTH HAZARD DATA**

ROUTES OF ENTRY: Primary route of entry - Inhalation

HEALTH HAZARDS: Burns from contact with reaction or reaction products. Direct eye contact with "flash" of light from reaction, can result in temporary blindness. Dust and fumes are irritant to eyes and upper respiratory tract. Long term exposure to copper-containing dusts may cause allergic dermatitis.

CARCINOGENICITY: NTP - No

IARC MONOGRAPHS - No

OSHA REGULATED - No

SIGNS/SYMPTOMS OF EXPOSURE: (See Health Hazards)

EMERGENCY AND FIRST AID PROCEDURES: Standard treatment for burns. For inhalation of dust, fume, remove from exposure, provide fresh air, flush eyes with water, consult physician.

MATERIAL SAFETY DATA SHEET

ERICO, INC.

34600 Solon Road

Solon, Ohio 44139

(440) 248-0100

PAGE: 3 OF 3

**PRODUCT FAMILY: CADWELD® STARTING MATERIAL**  
**NOTE: THIS MATERIAL IS NOT SOLD SEPARATELY.**

DATE PREPARED: 3/28/90

REVISED: 3/03/04

MSDS: 328I

**6. PRECAUTIONS FOR SAFE HANDLING AND USE**

**ACTION TO TAKE FOR SPILLS/LEAKS:** All unused, spilled materials may be swept up for disposal using soft, dry sponge or soft natural fiber brush, and non-sparking conductive scoop. Synthetic fiber bristle brushes and plastic or other non-conductive scoops should NOT be used. Avoid actions that would create dust laden cloud or cause powder to disperse in air.

**WASTE DISPOSAL METHOD:** Contact factory for assistance or dispose of in accordance with Federal, State, and Local regulations.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Materials must be kept dry.

**7. CONTROL MEASURES**

**RESPIRATORY PROTECTION:** Where TLV is exceeded, use NIOSH approved particulate respirator.

**VENTILATION:** Local Exhaust - Use only when TLV is exceeded. Exhaust system must be specifically approved for use with reactive combustible dust. (See NFPA #77 Nat'l. Fire Protection Association, Batterymarch Park, Quincy, Mass. 62269.) Exhaust systems electrical equipment should be suitable for Class II, Group E locations.

**PROTECTIVE GLOVES:** Recommended for handling hot equipment.

**EYE PROTECTION:** Safety glasses and caution to user to avoid direct eye contact with "flash" of light from reaction.

**8. ADDITIONAL INFORMATION**

This product contains ingredients subject to reporting requirements of Section 313 of Title III of SARA and 40 CFR 372.

Prepared By: \_\_\_\_\_

*Dean Moore*

MOORE

DEAN