

THE ELECTRIC MATERIALS COMPANY

COMMUTATORS - EXTRUSIONS - ROTOR BAR - CASTINGS - FORGINGS



SAFETY DATA SHEET (SDS)

ID: **C95200**

DATE ISSUED: **5/22/2015**

SECTION 1 – PRODUCT IDENTIFICATION & COMPANY INFORMATION

PRODUCT NAME: **ALUMINUM BRONZE COPPER CASTINGS**

OTHER DESIGNATIONS: C95200 C95300 C95400 C95500 C95600

PRODUCT IDENTIFICATION: N/A

MANUFACTURER'S INFORMATION: THE ELECTRIC MATERIALS COMPANY
50 SOUTH WASHINGTON STREET
NORTH EAST, PA 16428

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RECOMMENDED USE AND RESTRICTIONS ON USE:

Solid Casting; no restrictions

SECTION 2 – HAZARD IDENTIFICATION

CLASSIFICATION: Castings are metallic articles that do not present hazards in their original form.

OTHER INFORMATION:

1. Grinding castings that have not been cleaned or that contain embedded sand may generate significant amounts of dust containing crystalline silica.
2. Fumes from hot processes may contain other compounds with different exposure limits. Dust or fumes generated by machining, grinding, welding or thermal cutting of the casting may produce airborne contaminants. Consult Sections 3 & 8 for further information.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	COMMON NAME	CAS #	PERCENT WEIGHT
Cu	Copper	7440-50-8	86.0%
Al	Aluminum	7429-90-5	9.5%
Fe	Iron	1309-37-1	4%

SECTION 4 – FIRST AID MEASURES

EYE CONTACT: Not applicable to solid castings

SKIN CONTACT: No special requirements for solid castings

INGESTION:	Not applicable	
INHALATION:	Not applicable	
SECTION 5 – FIREFIGHTING MEASURES		
FLAMMABLE PROPERTIES:	Not applicable	
EXTINGUISHING MEDIA:	Not applicable	
PROTECTION OF FIREFIGHTERS:	Not applicable	
SECTION 6 – ACCIDENTAL RELEASE MEASURES		
Not applicable		
SECTION 7 – HANDLING AND STORAGE		
RECOMMENDED STORAGE:	No special requirements	
PROCEDURES FOR HANDLING:	Proper hand and foot protection is recommended	
SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION		
ENGINEERING CONTROLS:	None Required. There are no health hazards from castings in solid form.	
SUBSTANCE	ACGIH TLV mg/m³	OSHA PEL mg/m³
Cu	1 0.2	1 (dust) 0.2 (fume)
Al	10	10 (dust)
Fe	5	5 (resp)
SUPPLEMENTAL INFORMATION Grinding castings that have not been cleaned or that contain embedded sand may generate significant amounts of dust containing crystalline silica.	SUPPLEMENTAL INFORMATION Fumes from hot processes may contain other compounds with different exposure limits than those listed herein: Dust or fumes generated by machining, grinding, welding or thermal cutting of the casting may produce airborne contaminants. Exposure limits for the most common contaminants are offered as reference. Please consult a competent person for guidance on exposure assessment and controls.	
TERMS: ALL EXPOSURE LIMITS REFERENCED HEREIN ARE 8 HOUR TIMEWEIGHTED AVERAGES (TWA) UNLESS OTHERWISE NOTED. TLV = THRESHOLD LIMIT VALUE/AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH) mg/m ³ = MILLIGRAMS PER CUBIC METER		
PERSONAL PROTECTION:	Proper hand and foot protection is recommended	
SECTION 9 – PHYSICAL & CHEMICAL PROPERTIES		
APPEARANCE/PHYSICAL STATE: Solid, Yellowish in color		
ODOR/ODOR THRESHOLD: None	VAPOR DENSITY: Not applicable	
MELTING/FREEZING POINT:	SPECIFIC GRAVITY: (relative density)	

Approximately 1085°C (1984°F) for copper	7.53 g/cm ³ for copper (water = 1)
BOILING POINT: 2562°C (4644°F) for copper	VAPOR PRESSURE: Not applicable
FLASH POINT: Not applicable for solid castings	EVAPORATION RATE: Not applicable
FLAMMABILITY: Not flammable for castings in solid form	SOLUBILITY IN WATER: Insoluble
UPPER & LOWER FLAMMABILITY LIMITS: Not applicable for castings in solid form	pH: Not applicable
AUTO IGNITION TEMPERATURE: Not applicable	VISCOSITY: Not applicable
DECOMPOSITION TEMPERATURE: Not applicable	PARTITION COEFFICIENT: Not applicable

SECTION 10 – STABILITY & REACTIVITY

CHEMICAL STABILITY: Castings in solid form are stable	
CONDITIONS TO AVOID: None	
REACTIVITY: Not reactive	INCOMPATIBLE MATERIALS: None
HAZARDOUS DECOMPOSITION PRODUCTS: None	HAZARDOUS POLYMERIZATION: Not applicable

SECTION 11 – TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS				
EYE CONTACT:	None			
SKIN:	None			
INGESTION:	None			
INHALATION:	None			
Carcinogen Classification of Ingredients				
Ingredient	OSHA	NTP	IARC	Target Organ
None	-----	----	----	

TERMS:

OSHA – Occupational Safety & Health Administration

Y = Listed as a human carcinogen

NTP – National Toxicology Program

K = Known to be a human carcinogen

R = Reasonably anticipated to be a human carcinogen (RAHC)

IARC – International Agency for Research on Cancer

1 = Carcinogenic to humans

2A = Probably carcinogenic to humans

2B = Possibly carcinogenic to humans

3 = Unclassifiable as to carcinogenicity to humans

4 = Probably not carcinogenic to humans

Other –

NL = Not listed

SECTION 12 – ECOLOGICAL INFORMATION	
ECOTOXICITY Not applicable	PERSISTENCE AND DEGRADABILITY Not applicable
BIOACCUMULATION POTENTIAL Not applicable	MOBILITY IN SOIL Not applicable
OTHER ADVERSE EFFECTS Not applicable	
SECTION 13 – DISPOSAL CONSIDERATIONS	
Recover or Recycle if possible. Dispose of according to Federal, State and Local Regulations. Dust collected from machining, welding, etc. may be classified as a hazardous waste. Consult Federal, State and Local regulations.	
SECTION 14 – TRANSPORT INFORMATION	
US DEPT OF TRANSPORTATION (DOT)-HMR (Hazardous Materials Registration) Not regulated	CANADIAN TRANSPORTATION OF DANGEROUS GOODS (TDG) Not regulated
UN SHIPPING NAME Not regulated	UN NUMBER Not regulated
TRANSPORT HAZARD CLASS Not regulated	PACKING GROUP Not regulated
ENVIRONMENTAL HAZARDS None	LABEL(S) REQUIRED? No
TRANSPORT IN BULK Not applicable	SPECIAL SHIPPING INFORMATION Not applicable
SECTION 15 - REGULATORY INFORMATION	
US-OSHA (HAZARD COMMUNICATION STANDARD) References: 29 CFR 1910.1200 A finished casting is an article as defined in the OSHA Hazard Communication Standard 29 CFR 1910.1200 (c) 29 CFR 1910.1000 Air Contaminants Dust or fumes generated by cleaning, machining, grinding, or welding of the casting may produce airborne contaminants, such as copper and silica.	
US-EPA (TOXIC SUBSTANCES CONTROL ACT – TSCA) All components of these products are on the TSCA inventory list or are excluded from listing. US-EPA (SARA TITLE III) Releases to the environment of Copper may be subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.	
CANADA-WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM) This SDS has been prepared according to the hazard criteria of the Controlled Product Regulations (CPR) and the SDS contains the information required by the CPR.	
CANADA DSL (DOMESTIC SUBSTANCES LIST) INVENTORY STATUS All components of these products are on the DSL Inventory.	
CEPA (CANADIAN ENVIRONMENTAL PROTECTION ACT) No components are on the Toxic Substances List.	

EINECS NO. (EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES)

All components of these products are on the EINECS list.

RoHS (RESTRICTION OF CERTAIN HAZARDOUS SUBSTANCES) COMPLIANCE

Castings comply with RoHS.

CALIFORNIA PROPOSITION 65 COMPLIANCE

Copper is not on California's Proposition 65 list. (California Health & Safety Code 25248.5 et seq.)

US STATE REGULATORY INFORMATION

Some of the components listed in Section 3 (e.g., Copper) may be covered under specific state regulations.

SECTION 16 – OTHER INFORMATION

SDS PREPARED BY

The information herein is given in good faith and based on technical data. The Electric Materials Company believes to be reliable. Since the conditions of use are outside our control, we assume no liability in connection with any use of this information and no warranty, expressed or implied is given. Contact the Electric Materials Company or its associates for additional information.

DATE

05/2015

NOTE:

This data and label information is offered in good faith as typical values and not as a product specification. No warranty either expressed or implied is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally acceptable. However, each user should review the recommendations in specific context of the intended use and determine if they are appropriate.

LABEL Information:

We have no current labels for C95200.