DOD Hazardous Materials Information System DoD 6050.5-L AS OF July 1998 FSC: 9610 NIIN: 00N036707 Manufacturer's CAGE: IN758 Part No. Indicator: A Part Number/Trade Name: CHROMIUM METAL, ELECTROLYTIC CR \_\_\_\_\_ General Information \_\_\_\_\_ Item Name: Company's Name: SHIELDALLOY METALLURGICAL CORP Company's Street: 12 WEST BLVD Company's P. O. Box: 768 Company's City: NEWFIELD Company's State: NJ Company's Country: US Company's Zip Code: 08344 Company's Emerg Ph #: 800-424-9300 (CHEMTREC) Company's Info Ph #: 609-692-4200 Distributor/Vendor # 1: Distributor/Vendor # 1 Cage: Distributor/Vendor # 2: Distributor/Vendor # 2 Cage: Distributor/Vendor # 3: Distributor/Vendor # 3 Cage: Distributor/Vendor # 4: Distributor/Vendor # 4 Cage: Safety Data Action Code: Safety Focal Point: N Record No. For Safety Entry: 001 Tot Safety Entries This Stk#: 001 Status: SMJ Date MSDS Prepared: 040CT89 Safety Data Review Date: 30NOV92 Supply Item Manager: MSDS Preparer's Name: Preparer's Company: Preparer's St Or P. O. Box: Preparer's City: Preparer's State: Preparer's Zip Code: Other MSDS Number: MSDS Serial Number: BQTKG Specification Number: Spec Type, Grade, Class: Hazard Characteristic Code: N1 Unit Of Issue: Unit Of Issue Container Qty: Type Of Container: Net Unit Weight: Report for NIIN: 00N036707 NRC/State License Number: Net Explosive Weight: Net Propellant Weight-Ammo: Coast Guard Ammunition Code: \_\_\_\_\_ Ingredients/Identity Information

Proprietary: NO Ingredient: CHROMIUM (SARA III) Ingredient Sequence Number: 01 Percent: 99 Ingredient Action Code: Ingredient Focal Point: N NIOSH (RTECS) Number: GB4200000 CAS Number: 7440-47-3 OSHA PEL: 1 MG/M3 ACGIH TLV: 0.5 MG/M3 Other Recommended Limit: N/K Physical/Chemical Characteristics \_\_\_\_\_ Appearance And Odor: METALLIC LUMP OR POWDER. ODORLESS. Boiling Point: N/A Melting Point: 2498F,1370C Vapor Pressure (MM Hg/70 F): N/A Vapor Density (Air=1): N/A Specific Gravity: 7-7.3 Decomposition Temperature: N/K Evaporation Rate And Ref: NOT APPLICABLE Solubility In Water: INSOLUBLE/NEGLIGIBLE Percent Volatiles By Volume: N/A Viscosity: pH: N/K Radioactivity: Form (Radioactive Matl): Magnetism (Milligauss): N/P Corrosion Rate (IPY): N/K Autoignition Temperature: \_\_\_\_\_ Fire and Explosion Hazard Data Flash Point: NOT APPLICABLE Flash Point Method: N/P Lower Explosive Limit: N/A Upper Explosive Limit: N/A Extinguishing Media: CLASS D FIRE:DO NOT USE WATER. USE DRY CHEMICAL, DRY SAND OR CO\*2 TO SMOTHER FIRE. Special Fire Fighting Proc: WEAR NIOSH/MSHA APPRVD SCBA & FULL PROT EQUIP (FP N). FIRE MAY BE ISOLATED & ALLOWED TO BURN ITSELF OUT. DO NOT DISTURB BURNING METAL WHILE EXTINGUISHING FIRE. Unusual Fire And Expl Hazrds: FIRES OR EXPLOSIONS MAY BE INITIATED BY EXPOSING ANY CONCENTRATED DUST SUSPENSION IN AN ENCLOSED INDUSTRIAL AREA TO A SPARK OR FLAME. IGNITION POINT 350C. Report for NIIN: 00N036707 Reactivity Data Stability: YES Cond To Avoid (Stability): NOT APPLICABLE Materials To Avoid: OXIDIZERS Hazardous Decomp Products: NONE Hazardous Poly Occur: NO Conditions To Avoid (Poly): NOT RELEVANT \_\_\_\_\_ Health Hazard Data

LD50-LC50 Mixture: NONE SPECIFIED BY MANUFACTURER. Route Of Entry - Inhalation: YES Route Of Entry - Skin: NO Route Of Entry - Ingestion: NO Health Haz Acute And Chronic: EFTS ASSOC W/OVEREXPOS TO METAL DUSTS MAY INCL RESP IRRIT, CONJUNCTIVITIS, PNEUMOCONIOSIS, ETC. INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) HAS DETERMINED A "CAUSAL" ASSOCIATION BETWEEN OCCUPATIONAL EXPOSURES TO CHROMIUM AND CERTAIN CHROMIUM COMPOUNDS AND CANCER IN HUMANS. THIS DETERMINATION (EFTS OF OVEREXP) Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO Explanation Carcinogenicity: NOT RELEVANT. Signs/Symptoms Of Overexp: HLTH HAZ:WAS BASED ON EVIDENCE WHERE EXPOSURES WERE ESSENTIALLY TO HEXAVALENT CHROMIUM COMPOUNDS. THE PRODUCTS COVERED BY THIS DATA SHEET CONTAIN CHROMIUM IN METAL STATE. THE ACGIH CONCLUDED THAT CHROMIUM METAL IS NOT CARCINOGENIC TO HUMANS. Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER. Emergency/First Aid Proc: INHAL: IF IRRITATION OCCURS, REMOVE TO FRESH AIR. CONTACT PHYSICIAN. SKIN: IF IRRITATION OCCURS, WASH SKIN. CONTACT PHYSICIAN. EYE: IF IRRITATION OCCURS, FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. CONTACT PHYSICIAN. INGEST:CALL MD IMMEDIATELY (FP N). Precautions for Safe Handling and Use \_\_\_\_\_ Steps If Matl Released/Spill: NO SPECIAL STEPS NECESSARY. Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER. Waste Disposal Method: DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. Precautions-Handling/Storing: AVOID AND CONTROL OPERATIONS WHICH CREATE DUSTING. Other Precautions: NONE SPECIFIED BY MANUFACTURER. Control Measures \_\_\_\_\_ Respiratory Protection: IN DUSTY AREAS, USE NIOSH/MSHA APPROVED SCHEDULE 21-C RESPIRATOR. Ventilation: LOCAL EXHAUST:RECOMMENDED WHERE DUSTING MAY OCCUR MECHANICAL (GENERAL): USE FOR GENERAL AREA CONTROL. Protective Gloves: IMPERVIOUS GLOVES (FP N). Eye Protection: CHEMICAL WORKERS GOGGLES (FP N). Report for NIIN: 00N036707 Other Protective Equipment: NONE SPECIFIED BY MANUFACTURER. Work Hygienic Practices: NONE SPECIFIED BY MANUFACTURER. Suppl. Safety & Health Data: NONE SPECIFIED BY MANUFACTURER. Transportation Data \_\_\_\_\_\_ Transportation Action Code: Transportation Focal Point: N Trans Data Review Date: 93148 DOT PSN Code: ZZZ DOT Symbol: DOT Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION DOT Class: N/R DOT ID Number: N/R DOT Pack Group: DOT Label: N/R

DOT/DoD Exemption Number: IMO PSN Code: ZZZ IMO Proper Shipping Name: NOT REGULATED FOR THIS MODE OF TRANSPORTATION IMO Regulations Page Number: N/R IMO UN Number: N/R IMO UN Class: N/R IMO Subsidiary Risk Label: N/R IATA PSN Code: ZZZ IATA UN ID Number: N/R IATA Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION IATA UN Class: N/R IATA Subsidiary Risk Class: N/R IATA Label: N/R AFI PSN Code: ZZZ AFI Symbols: AFI Prop. Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION AFI Class: N/R AFI ID Number: N/R AFI Pack Group: AFI Label: N/R AFI Special Prov: AFI Basic Pac Ref: MMAC Code: N.O.S. Shipping Name: Additional Trans Data: NOT REGULATED FOR TRANSPORTATION \_\_\_\_\_ Disposal Data \_\_\_\_\_ Disposal Data Action Code: Disposal Data Focal Point: Disposal Data Review Date: Rec # For This Disp Entry: Tot Disp Entries Per NSN: Landfill Ban Item: Disposal Supplemental Data: 1st EPA Haz Wst Code New: 1st EPA Haz Wst Name New: Report for NIIN: 00N036707 1st EPA Haz Wst Char New: 1st EPA Acute Hazard New: 2nd EPA Haz Wst Code New: 2nd EPA Haz Wst Name New: 2nd EPA Haz Wst Char New: 2nd EPA Acute Hazard New: 3rd EPA Haz Wst Code New: 3rd EPA Haz Wst Name New: 3rd EPA Haz Wst Char New: 3rd EPA Acute Hazard New: Label Data \_\_\_\_\_ Label Required: YES Technical Review Date: 30NOV92 Label Date: MFR Label Number: Label Status: G Common Name: CHROMIUM METAL, ELECTROLYTIC CR Chronic Hazard: YES Signal Word: DANGER!

Acute Health Hazard-None: Acute Health Hazard-Slight: Acute Health Hazard-Moderate: Acute Health Hazard-Severe: X Contact Hazard-None: Contact Hazard-Slight: X Contact Hazard-Moderate: Contact Hazard-Severe: Fire Hazard-None: X Fire Hazard-Slight: Fire Hazard-Moderate: Fire Hazard-Severe: Reactivity Hazard-None: X Reactivity Hazard-Slight: Reactivity Hazard-Moderate: Reactivity Hazard-Severe: Special Hazard Precautions: AVOID AND CONTROL OPERATIONS WHICH CREATE DUSTING. ACUTE: EFFECTS ASSOCIATED WITH OVEREXPOSURE TO METAL DUSTS MAY INCLUDE RESPIRATORY IRRITATION, CONJUNCTIVITIS, ETC. CHRONIC: OVEREXPOSURE TO METAL DUST MAY CAUSE CONJUNCTIVITIS. Protect Eye: Y Protect Skin: Y Protect Respiratory: Y Label Name: SHIELDALLOY METALLURGICAL CORP Label Street: 12 WEST BLVD Label P.O. Box: 768 Label City: NEWFIELD Label State: NJ Label Zip Code: 08344 Label Country: US Label Emergency Number: 800-424-9300 (CHEMTREC) Year Procured: