

Material Safety Data Sheet

Article I: Material Description

Common Name: Aluminum
Chemical Name: Al
Trade Name / Synonyms: Aluminum anode
Use: Cathodic Protection
CAS: 7429-90-5

Article II: Physical Data

Boiling Point: 2327 °C
Melting Point: 660 °C
Specific Gravity: 2.7 (H₂O = 1)
Vapor Density Air: >Air
Vapor Pressure: 0.006 mm_{Hg} (659°C)
Solubility in Water: Insoluble
Appearance: Silver White to Gray Metal
Odor: None
Evaporation Rate: NA
Percent Volatile by Volume: NA

Article III: Hazardous Ingredients

Paints, Preservatives % TLV and Solvents
Pigments: NA
Catalyst: NA
Vehicle: NA
Solvents: NA
Metallic Coatings: NA
Additives: NA
Others: NA
Hazardous Mixtures of other liquids, solids or gases: NA

Alloys and Metallic % TLV Coatings
Base Metal: NA
Alloys: NA
Filler Metal plus Coating or Core Flux: NA
Others: NA

Article IV: Fire and Explosion Hazard Data

Flash Point: 645
Flammable Limits: NA
LEL: NA
UEL: NA

Extinguishing Media: For small fires use dry chemical, soda ash, lime or sand. For large fires use dry sand, dry chemical, soda ash, lime, or withdraw from area and let fire burn.

Special Fire Fighting Procedures: Use approved self-contained breathing apparatus and full protective gear.

Unusual Fire and Explosion Hazards: Water contact with molten metal may cause sudden expansion and massive splashing of hot metal. DO NOT USE WATER! Do not get water inside the containers.

Article V: Special Protection Information

Respiratory Protection: Approved respirator for dust or fumes

Ventilation: The area surrounding any plating tank should have suitable ventilation to prevent gases, mists and particles from evolving from the plating tank and reaching injurious levels.

Protective Gloves: Required for hot metal.

Eye Protection: Wear appropriate protective eyeglasses or chemical safety goggles.

Other protective equipment: Appropriate for handling molten metal

Article VI: Reactivity Data

Stability: Combines vigorously or explosively with water

Incompatibility (Materials to avoid): Contact with strong acids, alkali, halogenated agents, metal salts, strong oxidizing agents, ammonium nitrate, ammonium persulfate, antimony, arsenic oxides, barium bromate, barium chlorate, barium iodate. Contact with water liberates highly flammable gases.

Hazardous Decomposition Products: Aluminum oxides, aluminum fumes.

Hazardous Polymerization: Will not occur

Conditions to avoid: NA

Article VII: Spill or Leak Procedures

Steps taken in case material is released or spilled: Clean up spills immediately, using the appropriate protective equipment. Remove sources of ignition. Use a spark-proof tool. Provide ventilation. Do not expose spill to water. Cover with dry earth or dry sand.

Waste Disposal Method: Place the material into a suitable, clean, dry, closed container for disposal.

Article VIII: Health Hazard Data

Threshold Limit Value: 5 mg/m³ for aluminum oxide fumes

Effects of Overexposure: Chronic exposure may cause lung damage. Chronic inhalation may cause pulmonary fibrosis.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause hemorrhaging of the digestive tract.

Inhalation: May cause respiratory tract irritation. May cause lung damage.
Skin: May cause skin irritation.

Emergency and First Aid Procedures

Inhalation: Get medical aid immediately. Remove from exposure to fresh air. If not breathing, give artificial respiration.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid immediately. Do not induce vomiting.

Article IX: Special Precautions

Precautions taken in handling and storing: Keep away from sources of ignition. Use only in a well ventilated area.

Other Precautions: This MSDS is offered solely for your information, consideration and investigation. Galvotec Alloys, Inc provides no warranties either expressed or implied, and assumes no responsibility for the accuracy or completeness of the data stated.