Safety Data Sheet

80% Iron / 20% Aluminum

SECTION 1: IDENTIFICATION

Product Name: 80% Iron / 20% Aluminum

Chemical Formula: Fe, Al

Other Names: Iron Aluminum Tablet

Intended Use / Restrictions on Use:

For professional/industrial use only.

Contact Information:
Greenwich Metals, Inc.
165 West Putnam Ave.
Greenwich, CT 06830
Phone: 203-622-4848

Emergency Contact:
Chemtrec – call 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

Classification:

Acute aquatic toxicity (Category 1) – H400
Chronic aquatic toxicity (Category 1) – H410

Label Elements:

Hazard Pictograms:

GHS09

Signal Word: Warning

Hazard Statements: H410 – Very toxic to aquatic life with long lasting effects

Precautionary Statements: P273 – Avoid release to the environment. P280 – Wear eye protection, protective clothing, protective gloves. P391 – Collect spillage. P501 – Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards: Avoid formation and consolidation of dust.

Unknown Acute Toxicity Statement:

Not Applicable

SECTION 3: COMPOSITION

Name: 80% Iron / 20% Aluminum

Synonyms: Iron Aluminum Tablet

Chemical Name	CAS Number	% by Weight
Iron (Fe)	7439-89-6	80%
Aluminum (Al)	7429-90-5	20%

Mixture:

For exact composition, refer to product specification or analysis.

SECTION 4: FIRST AID MEASURES

Required Treatment:
After inhalation, move to fresh air and rest in a position comfortable for breathing.
After skin contact, wash skin thoroughly.
After eye contact, remove contact lenses if applicable and flush eyes with water for at least 15 minutes.
After ingestion, do not induce vomiting. Rinse mouth with water. Call poison control center or doctor.

Important Symptoms & Effects, Acute & Delayed:
No information available. If feeling un-well after exposure, consult with a doctor.

Indication of Medical Attention:
If any acute or chronic symptoms arise or if feeling unwell after exposure, seek medical advice.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Techniques/Equipment:
Use dry agent such as dry powder, sand, or talc. Use extinguishing media appropriate for surrounding environment. Do not use water on molten metal.

Chemical Hazards from Fire:
Dust may combust.

Special Equipment and Precautions for Firefighters:
Exercise caution. If entering fire area, wear proper protective equipment including respiratory protection if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures/Personal Protection:
Avoid dust formation. Avoid breathing fumes and dust.
Evacuate all unnecessary personnel.

Protective Equipment:
Use appropriate personal protection equipment (PPE), as listed in section 8.

Methods of Containment & Cleanup:
Sweep up and shovel without creating dust. Keep in closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling:
When solid, practice good industrial hygiene and safety procedures. Do not allow dust or powder to accumulate on equipment or building surfaces. Clean exposed areas.

Precautions for Safe Storage:
Store in cool, dry and well ventilated location. Seal containers. Keep away from incompatible materials such as metal oxides (rust).

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters:
Iron has no exposure limits.

Aluminum:

USA OSHA - TWA (mg/m^3) – $15mg/m^3$ (Total Dust) – Table Z-1 Limits for Air Contaminants

USA OSHA - TWA (mg/m^3) – $15mg/m^3$ (Respirable Fraction) – Table Z-1 Limits for Air Contaminants

Engineering Controls:

Ensure adequate ventilation. Emergency eye wash stations and safety showers should be nearby any potential exposure. Ensure national/local regulations are observed.

Personal Protective Equipment:

Protective goggles, gloves and clothing. If insufficient ventilation, wear respiratory protection.

Materials for Protective Clothing: Wear chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant gloves. If working with molten or hot material, wear thermally resistant gloves.

Eye Protection: Chemical googles or safety glasses should be worn at all times. For furnace work, wear a face shield or safety glasses.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

Thermal Hazard Protection: For furnace work, fire retardant clothing, gloves, and safety shoes should be worn.

Consumer Exposure Controls: Do not eat, drink, or smoke during use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid (Metal)
Color: Grey/Silver
Taste: N/A
Molecular Weight: 5.85 g/mol for Iron
Odor: N/A
Odor Threshold: N/A
pH: N/A
Melting Point: 1,535 °C (2,795 °F) for Iron
Boiling Point: 2,750 °C (4,982 °F) for Iron
Boiling Range: N/A
Flash Point: N/A
Evaporation Rate: N/A
Flammability: May form combustible dust concentrations in air
Upper/Lower Flammability Limits: N/A
Vapor Pressure: N/A
Vapor Density: N/A
Relative Density: 7.86 g/mL at 25 °C for Iron
Solubility: Insoluble in water
Partition Coefficient: N/A
Auto-ignition Temperature: N/A
Decomposition Temperature: N/A
Viscosity: N/A

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No data available.

Stability: Stable under proper handling and storage conditions.

Hazardous Reactions: Powdered aluminum and iron oxide can cause thermite reactions.

Conditions to Avoid: Avoid incompatible materials, dust generation.

Incompatible Materials: Strong oxidizing agents, acids, metal oxides.

Hazardous Decomposition Products: Hydrogen gas may be produced by oxidation in water.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Exposure

Inhalation of dust, fumes. Skin contact through physical contact. Eye contact through physical contact or

dust and fumes. Ingestion through contamination of skin/surfaces.

Chronic and Acute Related Symptoms/Effects:
Inhalation of fumes or dust can cause respiratory irritation. Skin contact with molten metal can cause burns. Dust or fumes can cause eye irritation.

Measures of Toxicology:
Acute Toxicity: Not Classified
Skin Corrosion/Irritation: Not Classified
Serious Eye Damage/ Irritation: Not Classified
Respiratory or Skin Sensitization: Not Classified

Germ Cell Mutagenicity: Not Classified

Reproductive Toxicity: Not Classified

Carcinogenic Information: IARC Group: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Toxicity to fish – LC50 – Oncorhynchus Mykiss (rainbow trout) – 0.12mg/l – 96h for Al
Mortality LOEC – Ctenopharyngodon Idella (Grass Carp) 0.1mg/l – 96h for Al
LC50 - Morone saxatilis (Striped Bass) - 13.6 mg/l - 96 h for Fe
Persistence and Degradability: No data available
Bioaccumulative Potential: Salvelinus Fontinalis – 56d – 268 µg/l – Bio-concentration Factor: 36 for Al
Mobility in Soil: No data available
Other Adverse Effects:
Prevent entry to sewers and public waterways. Avoid release to the environment. Ensure accordance with national and local regulations.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of waste in accordance with all local, regional, national, and international regulations.

SECTION 14: TRANSPORTATION INFORMATION

UN Number: 3077
UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Iron/Aluminum)
Transport Hazard Classes: 9
Packing Group: III
Environmental Hazards: N/A
Transport in Bulk: N/A
Special Precautions: Keep dry.

SECTION 15: REGULATORY INFORMATION

US Federal Regulations:
SARA Section 302 – None
SARA Section 311/312 Hazard Classes – Aluminum is a Fire Hazard, Delayed (chronic) Health Hazard, Reactivity Hazard
SARA Section 313 Emissions Reporting – Aluminum is subject to reporting levels established by SARA. Iron is not covered by SARA regulations.

US State Regulations:
California – Prop. 65 – Non-carcinogenic
Massachusetts – Right To Know List (Aluminum Only)
Pennsylvania – Right To Know List
New Jersey – Right To Know List

SECTION 16: OTHER INFORMATION

Date of Preparation: 05/31/15
Prepared in accordance with OSHA HCS 29 CFR 1910.1200.

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