

**MSDS 032**  
Revised 11/2010

MATERIAL SAFETY DATA SHEET

MWS Wire Industries  
31200 Cedar Valley Drive  
Westlake Village, CA 91362  
(818) 991-8553

Trade Name: Bare aluminum alloy wire (1199, 1350, 1100, 6061, 5056)

Chemical Family: Aluminum

Chemical Formula: N/A

HAZARDOUS INGREDIENTS

<u>Ingredient</u>	<u>CAS No.</u>	<u>TLV</u>	<u>PEL</u>	<u>STEL</u>
Aluminum	7429-90-5	5 (D) (F)	5 (D) (F)	NS
Copper	7440-50-8	1 (D) / 0.2 (F)	1 (D) / 0.1 (F)	2
Chromium	7440-47-3	0.5	1	NS
Magnesium	7439-95-4	10	5 (D)	NS
Manganese	7439-96-5	5* (D) / 1 (F)	5*	3
Silicon	7440-21-3	5 (D)	NS	NS

Product composition: 1199 Alloy-99.99%+ Aluminum  
1350 Alloy-99.5%+ Aluminum, .40% Iron (max), .10% Silicon (max)  
1100 Alloy-99%+ Aluminum, .95% Silicon + Iron (max), .12% Copper  
6061 Alloy-.6% Silicon, .28% Copper, 1% Magnesium, .2% Chromium,  
    bal. Aluminum  
5056 Alloy-.12% Manganese, 5% Magnesium, .12% Chromium, bal. Aluminum

Note: TLV - American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (mg/m<sup>3</sup>)

PEL - OSHA Permissible Exposure Level (mg/m<sup>3</sup>), 8 hour time weighted average

STEL - ACHIH Short Term Exposure Limit (mg/m<sup>3</sup>), 15 minutes maximum

\* Ceiling Level (Not to be exceeded)      D = Dust      F = Fume      NS = Not Specified

PHYSICAL DATA

Boiling Point °C: N/A

Vapor Pressure: N/A

Vapor Density: N/A

% Volatile: N/A

Evaporation Rate: N/A

Solubility in H<sub>2</sub>O: Insoluble

Specific Gravity: 2.70

Melting Temperature: 640-660°C

Appearance & Odor: Silvery gray solid. No odor.

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### FIRE & EXPLOSION HAZARD DATA

HMIS Flammability Rating: 0      Flash Point: N/A

Fire or Explosion Hazard: Aluminum wire by itself is not a fire hazard. Finely divided aluminum dust in air may pose a severe explosion hazard. For surrounding fire use a Class D dry powder extinguisher. Do not use water or halogenated extinguishing media. Fire fighters should use self-contained breathing apparatus as deemed necessary.

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### HEALTH HAZARD DATA

Health Hazard HMIS Rating: 1

Fine powders, granules and fumes from welding or abrasive operations may pose a health hazard.

Short Term Exposure: Dust and fumes irritate the eyes, nose and throat. Symptoms may include cough, metallic taste in mouth, fever, fatigue and nausea.

Long Term Exposure: Watering of the eyes, headaches, difficulty in breathing, coughing, severe chest pains and in acute cases, lung disease, lung fibrosis, pneumoconiosis or neurological damage.

Emergency First Aid Procedure:

- In case of fume inhalation, remove from exposure and consult a physician.
  - In case of eye contact, flush with large amounts of water for at least fifteen minutes. Seek medical attention.
  - In case of ingestion, seek immediate medical attention.
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### REACTIVITY DATA

HMIS Reactivity Rating: 0

Stability: Stable. Avoid contact with strong acids and oxidizers. Finely divided aluminum may react when mixed with halogenated acids, halogenated solvents, bromates, iodates or ammonium nitrate.

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### SPILL, LEAK, DISPOSAL PROCEDURES

Scrap aluminum wire has reclamation value. Where this is not practical, it may be disposed in accordance with state and federal regulations. In solid form, these alloys pose no special clean up problems. If material is in powder or dust form, clean up should be conducted to minimize generation of airborne powder and dust and to avoid contamination of water. Depending on the quantity, spills or releases to the environment may require a report to the National Response Center at (800) 424-8802.

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### EPCRA TITLE III SECTION 313

Aluminum (fume or dust) is subject to the reporting requirements of Section 313 of Title III of the Emergency Planning and Community Right-To-Know Act and 40 CFR Part 372 of the Federal Register. Additional information can be obtained from the Emergency Planning and Community Right-To-Know Information Hot Line, US EPA, (800) 535-0202.

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### EC RoHS DIRECTIVE COMPLIANCE

Aluminum wire (1199, 1100, 1350, 5056 and 6061 alloys) complies with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

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### ECHA REACH COMPLIANCE

Bare aluminum wire meets the definition of an article under REACH and does not contain SVHC listed as of the revision date of this MSDS. Also see [http://www.mwswire.com/pdf\\_files/reach.pdf](http://www.mwswire.com/pdf_files/reach.pdf) for more information on MWS Wire products and REACH.

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### SPECIAL PROTECTION

Use adequate ventilation to prevent irritation and maintain exposure limits to by-products from soldering or welding below OSHA permissible exposure levels. If these levels are exceeded use NIOSH approved respiratory protection. Wear safety glasses with side shields when heating, soldering welding or mechanically abrading aluminum wire.

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### SPECIAL PRECAUTIONS

No special precautions are required for normal handling of aluminum wire. Avoid storing magnet wire near materials that are reactive with aluminum.

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### PACKAGING & LABELING REQUIREMENTS

D.O.T. Shipping Name: Not regulated

Hazard Class: NA

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