Material Safety Data Sheet

Product Name: CONSUMER/FOODSERVICE USE ALUMINUM FOIL

*** Section 1 - Chemical Product and Company Identification ***

Chemical Formula: Aluminum (Al) foil with alloying elements
Other Designations: Reynolds Wrap(R), 8111 Aluminum Foil, 8011 Aluminum Foil, 1200 Aluminum Foil, 1100 Aluminum Foil, Foodservice Aluminum Foil

Alcoa Inc.
201 Isabella Street
Pittsburgh, PA 15212-5858

Phone: Health and Safety: 1-412-553-4649

Emergency Information:
USA: Chemtrec: 1-800-424-9300 or 1-703-527-3887
Alcoa: 1-412-553-4001

Website: For the most up-to-date MSDS, refer to the Alcoa website: www.alcoa.com

*** Section 2 - Composition / Information on Ingredients ***

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7429-90-5</td>
<td>Aluminum</td>
<td>&gt;96.9</td>
</tr>
<tr>
<td>7440-21-3</td>
<td>Silicon</td>
<td>0-1.1</td>
</tr>
<tr>
<td>7439-89-6</td>
<td>Iron</td>
<td>0-1</td>
</tr>
</tbody>
</table>

*** Section 3 - Hazards Identification ***

Emergency Overview

Potential Health Effects
This product is considered an article and does not pose any health hazard under normal conditions of use.

Eyes
Not a route of exposure under normal usage. May cause mechanical irritation if material comes into contact with the eye.

Skin: Not a route of exposure under normal usage.
Ingestion: Not a route of exposure under normal usage.
Inhalation: Not a route of exposure under normal usage.

Health Effects of Ingredients
Aluminum dust, fines and fumes Low health risk by inhalation. Generally considered to be biologically inert (milling, cutting, grinding).

*** Section 4 - First Aid Measures ***

First Aid: Eyes
None needed under normal usage. If material comes into contact with the eye, flush eyes with water while holding eyelids apart to ensure complete irrigation.

First Aid: Skin None needed under normal usage.
First Aid: Inhalation None needed under normal usage.
*** Section 5 - Fire Fighting Measures ***

Flammable/Combustible Properties
This product does not present fire or explosion hazards as shipped.

Extinguishing Media
Use Class D extinguishing agents on dusts, fines or molten metal.

Fire Fighting Equipment/Instructions
Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

*** Section 6 - Accidental Release Measures ***

Small/Large Spill: Collect scrap for recycling.

*** Section 7 - Handling and Storage ***

Handling/Storage: Product should be kept dry.

*** Section 8 - Exposure Controls / Personal Protection ***

Engineering Controls: Not required under recommended conditions of use.
Personal Protective Equipment
Respiratory Protection: Not required under recommended conditions of use.
Eye Protection: Not required under recommended conditions of use.
Skin Protection: Not required under recommended conditions of use.
Exposure Guidelines
A: General Product Information: No information available for product.

B: Component Exposure Limits
Aluminum (7429-90-5)
ACGIH 10 mg/m3 TWA (metal dust)
OSHA 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)

Silicon (7440-21-3)
ACGIH 10 mg/m3 TWA
OSHA 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)

*** Section 9 - Physical & Chemical Properties ***

Physical State: Solid.
Boiling Point: Not determined
Vapor Pressure: Not applicable
Solubility in Water: None
Density: 0.094-0.11 lb/in3 (2.6-3.1 g/cm3)
Odor: None
Octanol-Water Coefficient: Not applicable
Appearance: Silvery
Melting Point: 1108-1207°F (598-653°C)
Vapor Density: Not applicable
Specific Gravity: See Density
pH Level: Not applicable
Odor Threshold: Not applicable

*** Section 10 - Chemical Stability & Reactivity Information ***

Stability
Stable under normal conditions of use, storage, and transportation as shipped.
*** Section 11 - Toxicological Information ***

Health Effects of Ingredients
A: General Product Information
   No information available for product.
B: Component Analysis - LD50/LC50
   Silicon (7440-21-3)
      Oral LD50 Rat: 3160 mg/kg
   Iron (7439-89-6)
      Oral LD50 Rat: 30 g/kg

Carcinogenicity
A: General Product Information
   No information available for product.
B: Component Carcinogenicity
   None of this product's components are listed by ACGIH, IARC, or NTP.

*** Section 12 - Ecological Information ***

Ecotoxicity
A: General Product Information
   No information available for product.
B: Component Analysis - Ecotoxicity - Aquatic Toxicity
   No ecotoxicity data was found for this product's components.

Environmental Fate
   No information available for product.

*** Section 13 - Disposal Considerations ***

Disposal Instructions: Reuse or recycle material whenever possible. Material may be disposed of at a sanitary landfill.
US EPA Waste Number & Descriptions
A: General Product Information
   RCRA Status: Not federally regulated in the U.S. if disposed of "as is." Otherwise, characterize in accordance with applicable regulations (40 CFR 261 or state equivalent in the U.S.)
B: Component Waste Numbers
   RCRA waste codes other than described under Section A may apply depending on use of product. Refer to 40 CFR 261 or state equivalent in the U.S.

*** Section 14 - Transportation Information ***

Special Transportation
<table>
<thead>
<tr>
<th>PSN #1</th>
<th>PSN #2</th>
<th>PSN #3</th>
<th>PSN #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes:</td>
<td>(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proper Shipping Name:</td>
<td>Not regulated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UN NA Number:</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packing Group:</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RQ:</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other - Tech Name:</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other - Marine Pollutant:</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
(1) When "Not regulated," enter the proper freight classification, "MSDS Number," and "Product Name" on the shipping paperwork.

Canadian TDG Hazard Class & PIN: Not regulated
**Section 15 - Regulatory Information**

**US Federal Regulations**

**A: General Product Information**

In reference to Title VI of the Clean Air Act of 1990, this material does not contain nor was it manufactured using ozone-depleting chemicals.

**B: Component Analysis**

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

**Aluminum (7429-90-5)**

SARA 313: 1.0 % de minimis concentration (fume or dust only)

**SARA 311/312 Physical and Health Hazard Categories:**

- **Immediate (acute) Health Hazard:** Yes, if particulates/fumes generated during processing.
- **Delayed (chronic) Health Hazard:** Yes, if particulates/fumes generated during processing.
- **Fire Hazard:** No
- **Sudden Release of Pressure:** No
- **Reactive:** Yes, if molten

**State Regulations**

**A: General Product Information:** No information available for product.

**B: Component Analysis - State**

The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>CA</th>
<th>FL</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Silicon</td>
<td>7440-21-3</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Iron</td>
<td>7439-89-6</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

**Other Regulations**

**A: General Product Information:** No information available for product.

**B: Component Analysis - WHMIS IDL**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Minimum Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>1 % (English Item 47, French Item 197)</td>
</tr>
</tbody>
</table>

**C: Component Analysis - Inventory**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>TSCA</th>
<th>DSL</th>
<th>EINECS</th>
<th>AUST.</th>
<th>MITI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Silicon</td>
<td>7440-21-3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Iron</td>
<td>7439-89-6</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**Note:** Pure metals are not specifically listed by CAS or MITI number. The class of compounds for each of these metals is listed on the MITI inventory.

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**Section 16 - Other Information**

**MSDS History**

Original: October 19, 2001
Revised: November 11, 2004

**MSDS Status**

11/11/04: Reviewed on a periodic basis in accordance with Alcoa policy. Changes in Sections 1 and 15.
10/19/01: New MSDS. Replaces Reynolds MSDS No. 5232. For consumer and foodservice use of aluminum foil only. Use MSDS 980 for industrial/manufacturing uses of aluminum foil.
Material Safety Data Sheet

Product Name: CONSUMER/FOODSERVICE USE ALUMINUM FOIL

Prepared By
Hazardous Materials Control Committee
Preparer: Jon N. Peace, 412-553-2293

MSDS System Number
156285

Other Information
* NFPA 65, Standard for Processing and Finishing of Aluminum (NFPA phone: 800-344-3555)
* NFPA 651, Standard for Manufacture of Aluminum and Magnesium Powder
* NFPA 70, Standard for National Electrical Code (Electrical Equipment, Grounding and Bonding)
* NFPA 77, Standard for Static Electricity
* Guide to Occupational Exposure Values-2004, Compiled by the American Conference of Governmental Industrial Hygienists (ACGIH).
* Documentation of the Threshold Limit Values and Biological Exposure Indices, Sixth Edition, 1991, Compiled by the American Conference of Governmental Industrial Hygienists, Inc. (ACGIH).
* Integrated Index(R), MICROMEDEX, Inc., 2004

Key-Legend:
ACGIH American Conference of Governmental Industrial Hygienists
AICS Australian Inventory of Chemical Substances
CAS Chemical Abstract Service
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
CFR Code of Federal Regulations
CPR Cardio-pulmonary Resuscitation
DOT Department of Transportation
DSL Domestic Substances List (Canada)
EC Effective Concentration
ED Effective Dose
EINECS European Inventory of Existing Commercial Chemical Substances
EPA Environmental Protection Act
IARC International Agency for Research on Cancer
LC50 Lethal concentration (50 percent kill)
LCLo Lowest published lethal concentration
LD50 Lethal dose (50 percent kill)
LDLo Lowest published lethal dose
LFL Lower Flammable Limit
MITI Ministry of International Trade & Industry
NFPA National Fire Protection Association
NIOSH National Institute for Occupational Safety and Health
NTP National Toxicology Program
OEL Occupational Exposure Limit
OSHA Occupational Safety and Health Administration
PEL Permissible Exposure Limit
PIN Product Identification Number
PSN Proper Shipping Name
RCRA Resource Conservation and Recovery Act
SARA Superfund Amendments and Reauthorization Act
STEL Short Term Exposure Limit
TCLP Toxic Chemicals Leachate Program
TDG Transportation of Dangerous Goods
TLV Threshold Limit Value
TSCA Toxic Substance Control Act
TWA Time Weighted Average
UFL Upper Flammable Limit
WHMIS Workplace Hazardous Materials Information System