

Material Safety Data Sheet MSDS

Revision date: Apr. 12, 2001

(52091-20  
-40)

1. IDENTIFICATION

60506-8110  
-8410

PRODUCT NAME: Alufoil aluminum metal 1XXX series alloy

PRODUCT NUMBER: P5541

SUPPLIER: Alufoil Products Co., Inc.  
135 Oser Ave., P.O. Box 11023  
Hauppauge, NY 11788

V#90  
item # 60506

Emergency Telephone Number: (631)231-4141  
Business Telephone Number: (631)231-4141  
Fax Phone: (631)231-1435

SYNONYMS: Alloys: AA1025 to 3003

APPEARANCE AND ODOR: Grey to silver solid; odorless

Uses: Primary metal

2. INGREDIENTS

NAME	CAS #	LD <sub>50</sub>	LC <sub>50</sub>	CONC.
Aluminum	7429-90-5	Unknown	Unknown	>99.0 %
EU DIRECTIVE:	Symbol: None	R phrases: None		

\* For more detailed chemical composition, refer to the certificate of analysis.\*

3. HAZARD IDENTIFICATION

Not hazardous

4. FIRST AID MEASURES

**Inhalation:** In case of discomfort, remove to a ventilated area. If discomfort persists, consult a physician.  
**Skin Contact:** In case of burns with hot metal, rinse with plenty of cold water. If burn is severe, consult a physician.  
**Eye Contact:** Flush eyes thoroughly with water, taking care to rinse under eyelids. If irritation persists, continue flushing for 15 minutes, rinsing from time to time under eyelids. If discomfort continues, consult a physician.  
**Ingestion:** Not applicable.

5. FIRE-FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Not a fire hazard unless in particle form. Suspensions of aluminum dust in air may pose a severe explosion hazard. A potential for explosion exists for a mixture of fine and coarse particles if at least 15% to 20% of the material is finer than 44 microns (325 mesh). Buffing and polishing generate finer material than grinding, sawing and cutting. In case of aluminum fires, use a class D dry-powder extinguisher. Do not use water or halogenated extinguishing media.

**HAZARDOUS COMBUSTION PRODUCTS:** Not applicable.

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#### 6. ACCIDENTAL RELEASE MEASURES

Recycle if possible.

#### 7. HANDLING AND STORAGE

**Handling Precautions:** Because of the risk of explosion, aluminum ingots and metal scrap should be thoroughly dried prior to remelting. Use standard techniques to check metal temperature before handling. Hot aluminum does not present any warning color change. Exercise great caution, since the metal may be hot. For more information on the handling and storage of aluminum, consult "Guidelines for Handling Molten Aluminum", "Recommendations for Storage and Handling of Aluminum Powders and Paste" and "Guidelines for Handling Aluminum Fines Generated during various Aluminum Fabricating Operations" published by Aluminum Association, 900 Nineteenth St., N.W., Washington D.C., 20006.

**STORAGE CONDITIONS:** Not applicable.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Special ventilation should be used to convey finely divided metallic dust generated by grinding, sawing etc., in order to eliminate explosion hazards. Maintain dust concentration in ventilation ducts below the lower explosive limit of 40 g/m<sup>3</sup> (0.04 oz/ft<sup>3</sup>). See "National Fire Protection Association" Code 65 "Processing and Finishing of Aluminum", Code 651 "Standard for the Manufacture of Aluminum and Magnesium Powders" and Code 77 "Static Electricity". Use an approved respirator designed for the hazard, where concentrations exceed exposure limits. The use of both primary and secondary protective equipment is necessary when handling molten metal. Refer to "Aluminum Association" guidelines.

##### For wetted coil of foil

Do not cut, transport or even approach any coil giving off a crackling sound or emitting steam vapor.

Once a coil of foil has been partially or completely wetted, keep the coil cool until the interior is completely dry. If such cooling is impractical, place the coil away from people and other product for 72 hours. Do not immerse a coil of Aluminum Foil in water.

#### EXPOSURE LIMITS:

	ACGIH (TLV)		OSHA (PEL)	
	TWA	STEL	TWA	Ceiling
Aluminum (tot. dust)	10 mg/m <sup>3</sup>	- -	15 mg/m <sup>3</sup>	None
Fume, powder, resp.dust	5 mg/m <sup>3</sup>	- -	5 mg/m <sup>3</sup>	- -

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Ph: N.A.  
 boiling point: N.A.  
 melting Point: 482-660°C  
 vapor pressure: N.A.  
 vapor density (air=1): N.A.  
 evaporation rate: N.A.  
 relative density (water=1): 2.5-2.9  
 water solubility: N.A.  
 odor threshold: N.A.

flash point: N.A.  
 auto-ignition temp.: N.A.  
 lower flammable limit: N.A.  
 higher flammable limit: N.A.  
 explosive properties: N.A.  
 NFPA fire code: 0  
 oxidizing properties: N.A.  
 partition coefficient -  
 (n-octanol/water): N.A.

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10. STABILITY AND REACTIVITY

**STABLE (yes/no):** Yes

**CONDITIONS AND MATERIAL TO AVOID:** Molten aluminum may explode on contact with water. In the form of particles, may explode when mixed with halogenated acids, halogenated solvents, bromates, iodates or ammonium nitrate. Aluminum particles on contact with copper, lead, or iron oxides can react vigorously with release of heat if there is a source of ignition or intense heat.

For wetted coil of foil

In coils of aluminum foil severely immersed in water, a vigorous oxidation reaction occurs, producing hydrogen gas and heat. When the coils are removed from the cooling effect of the water, this reaction accelerates, large amounts of steam are produced, temperature rises significantly, hydrogen gas can reach concentrations over the lower explosive limit (4.1%): this can result in an explosive rupture of the coils. Rupturing of a coil may occur even when the coil is only partly immersed in water, and even if the immersion time is short.

**HAZARDOUS DECOMPOSITION PRODUCTS:** In the form of particles, aluminum reacts with water, strong basic solutions, strong acidic solutions, halogenated acids (eg.: hydrofluoric acid), producing flammable hydrogen gas.

11. TOXICOLOGICAL INFORMATION

**ROUTES OF EXPOSURE:**      **inhalation:** Yes      **ingestion:** No  
                                 **eye contact:** No      **skin contact:** No      **skin absorption:** No

**ACUTE EFFECTS:**

**Inhalation:** Solid aluminum does not present an inhalation hazard. Aluminum dusts generated during use are considered nuisance particulates.

**Skin Contact:** Skin contact with hot metal can cause burns.

**Eye Contact:** Aluminum dust can irritate the eyes (mechanical abrasion).

**Ingestion:** Not applicable.

**CHRONIC EFFECTS:**

**Medical conditions aggravated by exposure to the product:**  
Not applicable.

**Carcinogenicity/Mutagenicity/Reproductive toxicity:** None of the ingredients present at concentrations equal to or greater than 0.1% are listed as a carcinogen or potential carcinogen by the International Agency for Research on Cancer; National Toxicology Program (USA) or Occupational Safety and Health Administration (USA).

**SUPPLEMENTARY INFORMATION:** Aluminum fumes generated during welding or melting present low health risks. Welding or plasma arc cutting of aluminum alloys can generate ozone, nitric oxides and ultraviolet radiation. Ozone overexposure may result in mucous membrane or pulmonary discomfort. UV radiation can cause skin erythema and welders flash.

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12. ECOLOGICAL INFORMATION

Aluminum and its alloys under solid form, such as ingots or manufactured items, do not present any hazard for environment because metals are not biologically available. Aluminum can be recycled.

13. DISPOSAL CONSIDERATIONS

Recycle if possible. Dispose of waste in accordance with federal, state or local regulations.

14. TRANSPORT INFORMATION

Not regulated under any of the following: Transport of Dangerous Goods Regulations (Canada), CFR 49 Code of Federal Regulations (USA), International Maritime Organization, International Civil Aviation Organization, and International Air Transport Association.

15. REGULATORY INFORMATION

Working hazardous material information system CLASSIFICATION (Canada)  
Not controlled

EU CLASSIFICATION (European Union):

Warning symbol: Not applicable.

Warning word: Not applicable.

Risk phrases: Not applicable.

Safety phrases: Not applicable.

USA REGULATIONS: This products contains trace amounts of lead (Pb) (<0.1%) Any process resulting exposure to more than 0.5 mg/m<sup>3</sup> of metal dust per day may result in a daily dose of lead of over 0.5 ug/day, the dose above which the "California Safe Drinking Water Toxic Enforcement Act" of 1986 requires notification. Refer to the appropriate regulation notification wording guidelines. The dose is not considered dangerous for health according to current toxicology studies.

Section 313 Supplier Notification

This product contains no chemicals in concentrations subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (Title III of SARA) and of 40 CFR 372.

16. OTHER INFORMATION

\* Although the information in this MSDS was obtained from sources which we believe to be reliable, it cannot be guaranteed. In addition, this information may be used in a manner beyond our knowledge or control. The information is therefore provided for advice purpose only, without any representation or warranty express or implied.\*

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