Material Safety Data Sheet
Aluminum Other Than Powder

ACC# 01005

Section 1 - Chemical Product and Company Identification

MSDS Name: Aluminum Other Than Powder
Catalog Numbers: S47273, S70405, S70405-1, S70405-1A, S70405-2, S70405-3, S71912, A557-500, S704051, S704051A, S704052, S704053
Synonyms: Noral aluminum; Aluminum wire
Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100
Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7429-90-5	ALUMINUM	100	231-072-3

Hazard Symbols: None listed.
Risk Phrases: None listed.

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: silver white solid. **Caution!** May cause eye and skin irritation. May cause digestive tract irritation. Causes respiratory tract irritation.
Target Organs: None.

Potential Health Effects
Eye: May cause eye irritation.
Skin: May cause skin irritation.
Ingestion: May cause irritation of the digestive tract.
Inhalation: Dust is irritating to the respiratory tract. Exposure may cause coughing, shortness of breath, lethargy, and an increased respiration rate.
Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.
Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician: Treat symptomatically and supportively.
Antidote: None reported.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Extinguishing Media: Do NOT use water directly on fire. Use dry chemical to fight fire. Use carbon dioxide.
Flash Point: Not applicable.
Autoignition Temperature: Not applicable.
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: Health=0, Flammability=3, Reactivity=1

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Sweep up, then place into a suitable container for disposal.

Section 7 - Handling and Storage

Handling: Avoid contact with skin and eyes. Avoid ingestion and inhalation.
Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
	10 mg/m3 TWA (metal	total: 10 mg/m3 TWA; respirable dust: 5 mg/m3 TWA; pyro powders and	

ALUMINUM	dust)	welding fume s: 5 mg/m3 TWA; soluble salts and alkyls: 2 mg/m3 TWA	15 mg/m3 TWA (total

OSHA Vacated PELs: ALUMINUM: total dust, as Al: 15 mg/m3 TWA; respirable fraction, as Al: 5 mg/m3 TWA

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Appearance: silver white
Odor: odorless
pH: Not available.
Vapor Pressure: 1 mmHg @ 1284 C
Vapor Density: Not available.
Evaporation Rate: Negligible.
Viscosity: Not available.
Boiling Point: 4442 deg F
Freezing/Melting Point:1220 deg F
Decomposition Temperature: Not available.
Solubility: Insoluble in water.
Specific Gravity/Density:2.70 (water=1)
Molecular Formula: Al
Molecular Weight:26.9815

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Incompatible with antimony trichloride, arsenic trichloride, barium bromate, barium chlorate, barium iodate, barium sulfate, bismuch trioxide, bromates, bromine, calcium bromate, calcium chlorate, calcium iodate, calcium sulfate, carbon disulfide, carbon tetrachloride, chlorates, chlorinated hydrocarbons, chlorine, chlorine trifluroride, copper oxide, diborane, dichlorodifluoromethane, 1,2-dichloro-1,1,2,2,-tetrafluroethane, ethylene dichloride, propylenedichloride, and orthodichlorobenzene, fluorine, fluorochloro-libricants, iodate, iodine monochloride, lead oxides, magnesium and potassium perchlorate, magnesium bromate, magnesium chlorate, magnesium iodate, manganese and air, methyl bromide, methyl chloride, monobromotrifluoromethane, monochlorotrifluoro-methane, momofluorotrichloro-methane, niobium oxide and sulfur, nitrate-nitrite and organic matter, nitrates, nitric oxide, nitrogen peroxide, nitrosyl chloride, nitrous oxide, oxygen, palladium, phosgene, potassium bromate, potassium chlorate, potassium iodate, potassium sulfate, propylene dichloride, silicon

and lead oxide, silver chloride, sodium bromate, sodium carbide, sodium carbonate, sodium chlorate, sodium hydroxide, sodium iodate, sodium peroxide, sodium peroxide and carbon dioxide, sodium sulfate, sulfate, sulfur dichloride, sulfur dioxide, tetrafluoromethane, trichloroetylene, 1,1,2-trichloro-1,2,2-trifluoroethane, zinc bromate, zinc chlorate, zinc iodate, and zinc peroxide.
Hazardous Decomposition Products: Aluminum oxide.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 7429-90-5: BD0330000
LD50/LC50:
Not available.

Carcinogenicity:
CAS# 7429-90-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No data available.
Teratogenicity: No data available.
Reproductive Effects: No data available.
Neurotoxicity: No data available.
Mutagenicity: No data available.
Other Studies: No data available.

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	No information available.				No information available.
Hazard Class:					
UN Number:					

Packing Group:					

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 7429-90-5 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA

Section 302 (RQ)
None of the chemicals in this material have an RQ.
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 7429-90-5: acute, chronic.
Section 313
This material contains ALUMINUM (CAS# 7429-90-5, 100%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act:
This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 7429-90-5 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols:
Not available.
Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)
CAS# 7429-90-5: 0
Canada - DSL/NDSL
CAS# 7429-90-5 is listed on Canada's DSL List.
Canada - WHMIS
This product has a WHMIS classification of Not controlled..
Canadian Ingredient Disclosure List
CAS# 7429-90-5 is listed on the Canadian Ingredient Disclosure List.
Exposure Limits
CAS# 7429-90-5: OEL-AUSTRALIA:TWA 10 mg/m3 OEL-AUSTRALIA:TWA 2 mg/m 3 (salts) OEL-AUSTRALIA:TWA 5 mg/m3 (fumes) OEL-AUSTRALIA:TWA 5 mg/m 3 (resp. dust) OEL-BELGIUM:TWA 10 mg/m3 OEL-BELGIUM:TWA 2 mg/m3 (sal ts) OEL-BELGIUM:TWA 5 mg/m3 (fumes) OEL-BELGIUM:TWA 5 mg/m3 (resp. d ust) OEL-DENMARK:TWA 10 mg/m3 (resp. dust) OEL-DENMARK:TWA 2 mg/m3 (salts) OEL-DENMARK:TWA 5 mg/m3 (fumes) OEL-FINLAND:TWA 2 mg/m3 (salt s) OEL-FRANCE:TWA 10 mg/m3 OEL-FRANCE:TWA 2 mg/m3 (salts) OEL-FRANC E:TWA 5 mg/m3 (fumes) OEL-FRANCE:TWA 5 mg/m3 (resp. dust) OEL-GERMAN Y:TWA 6 mg/m3 OEL-HUNGARY:STEL 5 mg/m3 OEL-HUNGARY:TWA 2 mg/m3;STEL 4 mg/m3 (salts) JAN9 OEL-THE NETHERLANDS:TWA 10 mg/m3 (resp. dust) O EL-THE NETHERLANDS:TWA 2 mg/m3 (salts) OEL-RUSSIA:STEL 2 mg/m3 OEL-S WEDEN:TWA 10 mg/m3 (resp. dust) OEL-SWEDEN:TWA 2 mg/m3 (salts) OEL-S WEDEN:TWA 4 mg/m3 OEL-SWEDEN:TWA 5 mg/m3 (resp. dust) OEL-SWITZERLAN D:TWA 2 mg/m3 (salts) OEL-SWITZERLAND:TWA 6 mg/m3 (fumes) OEL-SWITZE RLAND:TWA 6 mg/m3 OEL-SWITZERLAND:TWA 6 mg/m3 (resp. dust) OEL-UNITE D KINGDOM:TWA 10 mg/m3;STEL 20 mg/m3 OEL-UNITED KINGDOM:TWA 10 mg/m3; STEL 20 mg/m3 (resp. dust) OEL-UNITED KINGDOM:TWA 2 mg/m3 (salts) OE L IN BULGARIA, COLOMBIA, JOR

Section 16 - Additional Information

MSDS Creation Date: 9/02/1997
Revision #2 Date: 8/02/2000