



Material Safety Data Sheet

PDM Steel Service Centers 3535 E. Myrtle Street P.O. Box 310 Stockton, CA 95201	Issue Date <p style="text-align: center;">January 1, 2001</p>	Identification <p style="text-align: center;">C Alloy & Tool</p>
Trade Name (Common Name or Synonym) <p style="text-align: center;">Carbon, Alloy and Tool Steels</p>	Emergency Phone Number <p style="text-align: center;">(209) 943-0513</p>	Or Contact Your Nearest <p style="text-align: center;">PDM Steel Service Center</p>
Chemical Name <p style="text-align: center;">Steel</p>	Form <p style="text-align: center;">Bar, Sheet, Plate, Tubing, and Structurals</p>	

I. INGREDIENTS

Material or Component	% Weight	Exposure Limits	
		OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)
Base Metal	Balance		
Iron (Fe)		10 (Fe ₂ O ₃ Fume)	5.0 (Fe ₂ O ₃ Fume)
Alloying Elements			
Aluminum (Al)			
Carbon ©	0.10 -1.8	None Listed	5.0 as welding fume
Chromium (Cr)	0.01 - 1.5	None Listed	None Listed
Cobalt (Co)	0.01 - 1.2	1.0 as Chrome	0.5 as Chrome
Copper (Cu)	8 Max.	0.1 as Cobalt and fume	0.05 as fume
Lead (Pb)	0.04 - 0.7	0.02 as Copper, 1.0 as dust	0.2 as fume & 1.0 as dust
Manganese (Mn)	0.15 - 0.35	0.05 as fume & dust	0.15 as dust & fume
Molybdenum (Mo)	0.05 - 2.0	5 as Manganese	5 as dust & 1 as fume
Nickel (Ni)	0.01 -1.10	15 as insoluble compounds	1.0 as insoluble compounds
Phosphorous (P)	0.01 -1.0	1.0 as Nickel	1.0 as Nickel
Silicon (Si)	0.15 Max.	0.1 as Phosphorus	0.1 as Phosphorous
Sulfur (S)	0.15 -2.20	None Listed	10 total dust
Tungsten (W)	0.001 -0.35	13 Sulfur dioxide	5 Sulfur dioxide
Vanadium (V)	0 - 18	None Listed	5 insoluble compounds
Zinc (Zn) coating	0.01 - 10	0.5 dust & 0.1 fume	0.05 dust & fume
	10 Max.	5.0 as fume	5.0 as fume

Note: The above listing is a summary of elements used in alloying steel. Various grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts.

II. PHYSICAL DATA

Material is (At normal Conditions): <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other		Appearance and Odor <p style="text-align: center;">Gray-Black With Metallic Lustre -- Odorless</p>	
Acidity/Alkalinity <p style="text-align: center;">ph=NA</p>	Approx. Melting Point 2750 F Boiling Point NA F	Specific Gravity (H ₂ O = 1) -- 7 Solubility in water (% by weight) -- NA	Vapor Pressure (mm Hg at 20 C) <p style="text-align: center;">NA</p>

III. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection NIOSH approved dust/ mist/fume respirator should be used during welding or burning if OSHA PEL or TLV is executed.	Hands, Arms and Body Used appropriate protective clothing such as welders aprons & gloves when welding or burning. Check local codes
Eyes and Face Safety glasses should always be worn when grinding or cutting; face shields should be worn when welding or burning.	Other Clothing and Equipment As Required

IV. EMERGENCY MEDICAL PROCEDURES

Inhalation:	Remove to fresh air, if condition continues, consult physician.
Eye Contact:	Immediately flush well with running water to remove particulate; get medical attention.
Skin Contact:	If irritation develops, remove clothing and was well with soap and water. If condition persist, seek medical attention.
Ingestion:	If significant amounts of metal are ingested, seek medical attention.

V. HEALTH/SAFETY INFORMATION

HEALTH

Steel products in the natural state do not present an inhalation, ingestion, or contact health hazard. However, operations such as welding, burning, sawing, brazing, grinding, and possibly machining, which result in elevating the temperature of the product to or above its melting point or result in the generation of airborne particulates may present hazards. The above operations should be performed in well ventilated areas. The major exposure hazard is inhalation.

Effects of overexposure:

Acute: Excessive inhalation of all metallic fumes and dusts may result in irritation of eyes, nose, and throat. Also, high concentrations of fumes and dusts of iron-oxide, manganese, copper, and selenium may result in metal fume fever. Typical symptoms consist of a metallic taste in the mouth, dryness and irritation of the throat, chills and fever, and usually last from 12 to 48 hours.

Chronic: Chronic and prolonged inhalation of high concentrations of fumes or dust of the following elements may lead to the conditions listed opposite the element:

Iron (Iron-oxide) -- Pulmonary effects, siderosis.
Manganese -- Bronchitis, pneumonitis, lack coordination.
Chromium -- Various forms of dermatitis, inflammation and/or ulceration of upper respiratory tract, and possibly cancer of nasal passages and lungs. Based on available information, there does not appear to be any evidence that exposure to welding fume induces human cancer.
Nickel -- same as Chromium.
Selenium -- Nasal and bronchial irritation, gastro-intestinal disturbances, garlic odor of breath.
Copper -- Pulmonary effects.
Vanadium -- No reported cases of exposure to vanadium.
Cobalt -- Inhalation of cobalt dust may cause an asthma-like disease with cough and dyspnea.
Molybdenum -- Pain in joints, hands and feet.

Occupational Exposure Limits
See Section 1.

FIRE AND EXPLOSION

Flash Point	NA	F	Auto Ignition Temperature	NA	F	Flammable Limits In Air	Extinguishing Media
						Lower NA %	
						Upper NA %	NA
Fire and Explosion Hazards						Extinguishing Media Not To Be Used	
None						NA	

REACTIVITY

STABILITY	Incompatibility (Materials to Avoid)
<input checked="" type="checkbox"/> STABLE <input type="checkbox"/> UNSTABLE	Reacts with strong acids to form hydrogen gas.

Conditions To Avoid
Non-ventilated areas when cutting, welding, burning, or brazing. Avoid generation of airborne dusts and fumes.
Keep Area Well Ventilated

Hazardous Decomposition Products
Metallic Oxides.

VI. ENVIRONMENTAL

Spill or Leak Procedures	Special Precautions
NA	Use good housekeeping practices to prevent accumulation of dust and to keep airborne dust to a minimum.

Waste Disposal Method
Dust, etc. -- follow federal, state, and local regulations regarding disposal.

VII. ADDITIONAL INFORMATION

Disclaimer
The information in this MSDS was obtained from sources which we believe reliable. However, the information is provided without any representation or warranty, express or implied regarding the accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.



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PDM Steel Service Centers 3535 E. Myrtle Street P.O. Box 310 Stockton, CA 95201	Issue Date <p style="text-align: center;">January 1, 2001</p>	Identification <p style="text-align: center;">STLS</p>
Trade Name (Common Name or Synonym) <p style="text-align: center;">Stainless Steel</p>	Emergency Phone Number <p style="text-align: center;">(209) 943-0513</p>	Or Contact Your Nearest <p style="text-align: center;">PDM Steel Service Center</p>
Chemical Name <p style="text-align: center;">Examples: 304, 347, 17-4, 410</p>	Form <p style="text-align: center;">Bar, Sheet, Plate, Tubing, and Structurals</p>	

I. INGREDIENTS

Material or Component	% Weight	Exposure Limits	
		OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)
Base Metal			
Iron (Fe)	39 - 81	10 (Fe ₂ O ₃ Fume)	5.0 (Fe ₂ O ₃ Fume)
Alloying Elements			
Carbon ©	0.5 Max.	None Listed	None Listed
Manganese (Mn)	10.0 Max.	5.0 as Manganese	1.0 as Manganese
Phosphorous (P)	0.001 - 0.2	0.1 as Phosphorous	0.1 as Phosphorous
Sulfur (S)	0.001 - 0.35 Max.	13 (sulfur dioxide)	5 (Sulfur dioxide)
Silicon (Si)	2.0 Max.	None Listed	None Listed
Chromium (Cr)	10 - 27	1.0 as chromium	0.5 as chromium
Nickel (Ni)	0 - 22	1.0 as Nickel	1.0 as Nickel
Selenium (Se)	0 - 0.35	0.2 as Selenium	0.2 as Selenium
Columbium (Cb)			
Tantalum (Ta)	10 x C % Wt.	5.0 as Tantalum	5.0 as Tantalum
Copper (Cu)	0.04 - 4	0.2 as copper	0.2 as Copper
Molybdenum (Mo)	0 - 4	5.0 soluble compounds	5.0 as soluble compounds
Aluminum (Al)	0 - 2	None Listed	5.0 as welding fumes
Titanium (Ti)	0.70 Max.	15 as Ti O ₂	10 as total dust

Note: The above listing is a summary of elements used in alloying steel. Various grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts.

II. PHYSICAL DATA

Material is (At normal Conditions): <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other		Appearance and Odor <p style="text-align: center;">Gray-Black With Metallic Lustre -- Odorless</p>	
Acidity/Alkalinity pH=NA	Approx. Melting Point 2750 F Boiling Point NA F	Specific Gravity (H ₂ O = 1) -- Approx. 8 Solubility in water (% by weight) -- NA	Vapor Pressure (mm Hg at 20 C) NA

III. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection NIOSH approved dust/ mist/fume respirator should be used during welding or burning if OSHA PEL or TLV is executed.	Hands, Arms and Body Used appropriate protective clothing such as welders aprons & gloves when welding or burning. Check local codes
Eyes and Face Safety glasses should always be worn when grinding or cutting; face shields should be worn when welding or burning.	Other Clothing and Equipment As Required

IV. EMERGENCY MEDICAL PROCEDURES

Inhalation:	Remove to fresh air, if condition continues, consult physician.
Eye Contact:	Immediately flush well with running water to remove particulate; get medical attention.
Skin Contact:	If irritation develops, remove clothing and was well with soap and water. If condition persist, seek medical attention.
Ingestion:	If significant amounts of metal are ingested, seek medical attention.

V. HEALTH/SAFETY INFORMATION

HEALTH

Steel products in the natural state do not present an inhalation, ingestion, or contact health hazard. However, operations such as welding, burning, sawing, brazing, grinding, and possibly machining, which result in elevating the temperature of the product to or above its melting point or result in the generation of airborne particulates may present hazards. The above operations should be performed in well ventilated areas. The major exposure hazard is inhalation.

Effects of overexposure:

Acute: Excessive inhalation of all metallic fumes and dusts may result in irritation of eyes, nose, and throat. Also, high concentrations of fumes and dusts of iron-oxide, manganese, copper, and selenium may result in metal fume fever. Typical symptoms consist of a metallic taste in the mouth, dryness and irritation of the throat, chills and fever, and usually last from 12 to 48 hours.

Chronic: Chronic and prolonged inhalation of high concentrations of fumes or dust of the following elements may lead to the conditions listed opposite the element:

Iron (Iron-oxide) -- Pulmonary effects, siderosis.
Manganese -- Bronchitis, pneumonitis, lack coordination.
Chromium -- Various forms of dermatitis, inflammation and/or ulceration of upper respiratory tract, and possibly cancer of nasal passages and lungs. Based on available information, there does not appear to be any evidence that exposure to welding fume induces human cancer.
Nickel -- same as Chromium.
Selenium -- Nasal and bronchial irritation, gastro-intestinal disturbances, garlic odor of breath.
Copper -- Pulmonary effects.
Vanadium -- No reported cases of exposure to vanadium.
Cobalt -- Inhalation of cobalt dust may cause an asthma-like disease with cough and dyspnea.
Molybdenum -- Pain in joints, hands and feet.

Occupational Exposure Limits
See Section 1.

FIRE AND EXPLOSION

Flash Point	NA	F	Auto Ignition Temperature	NA	F	Flammable Limits In Air	Extinguishing Media
						Lower NA %	
						Upper NA %	NA
Fire and Explosion Hazards				Extinguishing Media Not To Be Used			
None				NA			

REACTIVITY

STABILITY	Incompatibility (Materials to Avoid)
<input checked="" type="checkbox"/> STABLE <input type="checkbox"/> UNSTABLE	Reacts with strong acids to form hydrogen gas.

Conditions To Avoid
Non-ventilated areas when cutting, welding, burning, or brazing. Avoid generation of airborne dusts and fumes.
Keep Area Well Ventilated

Hazardous Decomposition Products
Metallic Oxides.

VI. ENVIRONMENTAL

Spill or Leak Procedures	Special Precautions
NA	Use good housekeeping practices to prevent accumulation of dust and to keep airborne dust to a minimum.

Waste Disposal Method
Dust, etc. -- follow federal, state, and local regulations regarding disposal.

VII. ADDITIONAL INFORMATION

Disclaimer
The information in this MSDS was obtained from sources which we believe reliable. However, the information is provided without any representation or warranty, express or implied regarding the accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.



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PDM Steel Service Centers 3535 E. Myrtle Street P.O. Box 310 Stockton, CA 95201	Issue Date <p style="text-align: center;">January 1, 2001</p>	Identification <p style="text-align: center;">Galv.</p>
Trade Name (Common Name or Synonym) <p style="text-align: center;">Galvanized Steel</p>	Emergency Phone Number <p style="text-align: center;">(209) 943-0513</p>	Or Contact Your Nearest <p style="text-align: center;">PDM Steel Service Center</p>
Chemical Name <p style="text-align: center;">Same</p>	Form <p style="text-align: center;">Flat Sheet, Formed Sheet, Culvert Pipe</p>	

I. INGREDIENTS

Material or Component	% Weight	Exposure Limits		
		OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)	
Base Metal	Balance	10 (Fe ₂ O ₃ Fume)	5.0 (Fe ₂ O ₃ Fume)	
Iron (Fe)				
Alloying Elements				
Carbon ©		0.005 - 0.06	None Listed	None Listed
Manganese (Mn)		0.05 - 1.50	5.0 as Manganese - Ceiling	5 as dust; 1 as fume - Ceiling
Phosphorous (P)		0.15 Max.	0.1 as Phosphorous	0.1 as Phosphorous
Sulfur (S)		.05 Max.	13 Sulfur Dioxide	5 Sulfur dioxide
Aluminum (Al)	0.10 Max.	None Listed	5.0 as welding fume	
Metallic Coating				
Zinc (Zn)	10 Max.	15.0 as insoluble compounds	5.0 as fume	
Aluminum (Al)	0.04 Max.	None Listed	5.0 as welding fume	
Antimony (Sb)	0.02 Max.	0.5 as Antimony	.05 as Antimony	
Lead (Pb)	0.02 Max.	0.05 as fume and dust	0.15 as fume and dust	

Note: The above listing is a summary of elements used in alloying steel. Various grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts.

II. PHYSICAL DATA

Material is (At normal Conditions): <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other	Appearance and Odor <p style="text-align: center;">Gray-Black With Metallic Lustre -- Odorless</p>		
Acidity/Alkalinity ph=NA	Approx. Melting Point 2750 F Metallic Coat 800 F	Specific Gravity (H ₂ O = 1) -- Approx. 7 Solubility in water (% by weight) -- NA	Vapor Pressure (mm Hg at 20 C) NA

III. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection NIOSH approved dust/ mist/fume respirator should be used during welding or burning if OSHA PEL or TLV is executed.	Hands, Arms and Body Used appropriate protective clothing such as welders aprons & gloves when welding or burning. Check local codes
Eyes and Face Safety glasses should always be worn when grinding or cutting; face shields should be worn when welding or burning.	Other Clothing and Equipment As Required

IV. EMERGENCY MEDICAL PROCEDURES

Inhalation:	Remove to fresh air, if condition continues, consult physician.
Eye Contact:	Immediately flush well with running water to remove particulate; get medical attention.
Skin Contact:	If irritation develops, remove clothing and was well with soap and water. If condition persist, seek medical attention. If significant amounts of metal are ingested, seek medical attention.

V. HEALTH/SAFETY INFORMATION

HEALTH

Steel products in the natural state do not present an inhalation, ingestion, or contact health hazard. However, operations such as welding, burning, sawing, brazing, grinding, and possibly machining, which result in elevating the temperature of the product to or above its melting point or result in the generation of airborne particulates may present hazards. The above operations should be performed in well ventilated areas. The major exposure hazard is inhalation.

Effects of overexposure:

Acute: Excessive inhalation of all metallic fumes and dusts may result in irritation of eyes, nose, and throat. Also, high concentrations of fumes and dusts of iron-oxide, manganese, copper, and selenium may result in metal fume fever. Typical symptoms consist of a metallic taste in the mouth, dryness and irritation of the throat, chills and fever, and usually last from 12 to 48 hours.

Chronic: Chronic and prolonged inhalation of high concentrations of fumes or dust of the following elements may lead to the conditions listed opposite the element:

Iron (Iron-oxide) -- Pulmonary effects, siderosis.

Manganese -- Bronchitis, pneumonitis, lack coordination.

Lead -- Prolonged exposure can cause behavioral changes, kidney damage, periphery neuropathy characterized by decreased hand-grip strength and adverse reproductive effects.

Zinc (Zinc Oxide) -- See Above

Occupational Exposure Limits

See Section 1.

FIRE AND EXPLOSION

Flash Point	NA	F	Auto Ignition Temperature	NA	F	Flammable Limits In Air	Extinguishing Media
						Lower NA %	
						Upper NA %	NA
Fire and Explosion Hazards						Extinguishing Media Not To Be Used	
None						NA	

REACTIVITY

STABILITY	Incompatibility (Materials to Avoid)
<input checked="" type="checkbox"/> STABLE <input type="checkbox"/> UNSTABLE	Reacts with strong acids to form hydrogen gas.
Conditions To Avoid	
Non-ventilated areas when cutting, welding, burning, or brazing. Avoid generation of airborne dusts and fumes. Keep Area Well Ventilated	
Hazardous Decomposition Products	
Metallic Oxides.	

VI. ENVIRONMENTAL

Spill or Leak Procedures	Special Precautions
NA	Use good housekeeping practices to prevent accumulation of dust and to keep airborne dust to a minimum.
Waste Disposal Method	
Dust, etc. -- follow federal, state, and local regulations regarding disposal.	

VII. ADDITIONAL INFORMATION

Disclaimer
The information in this MSDS was obtained from sources which we believe reliable. However, the information is provided without any representation or warranty, express or implied regarding the accuracy or correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.



Material Safety Data Sheet

PDM Steel Service Centers 3535 E. Myrtle Street P.O. Box 310 Stockton, CA 95201	Issue Date <p style="text-align: center;">January 1, 2001</p>	Identification <p style="text-align: center;">AL</p>
Trade Name (Common Name or Synonym) <p style="text-align: center;">Aluminum Alloys</p>	Emergency Phone Number <p style="text-align: center;">(209) 943-0513</p>	Or Contact Your Nearest <p style="text-align: center;">PDM Steel Service Center</p>
Chemical Name <p style="text-align: center;">Same</p>	Form <p style="text-align: center;">Bar, Sheet, Plate, Tubing and Structurals</p>	

I. INGREDIENTS

Material or Component	% Weight	Exposure Limits	
		OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)
Base Metal			
Aluminum (Al)	90-99.7	10.0 as metal dust and oxide 5.0 as welding fume	Not established Not established
Alloying Elements			
Cobalt (Co)	<1.0 - 10	.01	0.1
Copper (Cu)	<1.0 - 10	.02 as fume	0.1 as fume
Iron (Fe)	<1.0 - 10	5.0 as fume	10.0 as fume
Lead (Pb)	<0.2 - 0.7	.015 as dust and fume	0.05 as dust and fume
Magnesium (Mg)	<1.0 - 10	10.0 as fume	15.0 as fume
Manganese (Mn)	<1.0 - 10	1.0 as fume	5.0 ceiling
Silicon (Si)	<1.0 - 10	10.0 as total dust	Not established
Tin (Sn)	<1.0 - 10	2.0 as oxide and metal	2.0 as inorganic compounds
Zinc (Zn)	<1.0 - 10	5.0 as fume	5.0 as fume

Note: Aluminum alloys will be comprised of various combinations of the elements shown above. In addition, other alloying elements may be present in minute quantities.

II. PHYSICAL DATA

Material is (At normal Conditions): <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other		Appearance and Odor <p style="text-align: center;">Metallic Appearance -- No Odor</p>	
Acidity/Alkalinity <p style="text-align: center;">ph=NA</p>	Approx. Melting Point 900 - 1200 F Boiling Point NA	Specific Gravity (H ₂ O = 1) -- 2.5 - 2.9 Solubility in water (% by weight) -- Nil	Vapor Pressure (mm Hg at 20 C) <p style="text-align: center;">NA</p>

III. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection Appropriate respirator, depending upon potential airborne contaminants and their concentrations. If exposure limits are reached or exceeded use NIOSH approved respiration equipment	Hands, Arms and Body Appropriate gloves, especially for sheet and coil.
Eyes and Face Safety glasses or shield as appropriate.	Other Clothing and Equipment As needed, depending on operation and safety codes.

IV. EMERGENCY MEDICAL PROCEDURES

Skin Contact: Eye Contact:	Remove particles thoroughly by washing with soap and water. Flush with water thoroughly. Get medical attention if irritation persists.
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V. HEALTH/SAFETY INFORMATION

HEALTH

For standard operations (e.g. melting, cutting, grinding), aluminum alloys present a low health risk by inhalation and are usually considered a nuisance dust. toxicity by ingestion - none expected. Skin and eyes - not an irritant. Welding and plasma cutting of alloys high in copper (2000 and 7000 series) may present the potential for overexposure to copper fume which can result in upper respiratory tract irritation, nausea, and metal fume fever. Nickel and chromium are other alloying elements considered hazardous as fume; however, they do not present a carcinogenic or other health concerns due to their low concentration of the chemical form in which they are present. Over exposure to lead fumes over an extended period of time can result in such toxic effects as central nervous system disturbances, renal changes, peripheral neuropathy, gastrointestinal disturbances, anemia, and chromosomal changes.

Occupational Exposure Limits

See Section 1.

FIRE AND EXPLOSION

Flash Point	NA F	Auto Ignition Temperature	NA F	Flammable Limits In Air	Extinguishing Media
				Lower NA % Upper NA %	Dry powder or sand.
Fire and Explosion Hazards Small chips, fine turnings, and dust may ignite readily. Damp aluminum dust may spontaneously heat with liberation of hydrogen to form explosive air mixtures. Molten aluminum may explode on contact with water or certain metal oxides (e.g. oxides of copper, iron, and lead).				Extinguishing Media Not To Be Used Do not use water or halogen on dust fires.	

REACTIVITY

STABILITY	Incompatibility (Materials to Avoid)	
<input checked="" type="checkbox"/> STABLE UNSTABLE	Reacts with strong acids to form hydrogen gas.	
Conditions To Avoid Aluminum products under normal conditions are stable during use, storage, and transportation. Halogen acids and sodium hydroxide in contact with aluminum may generate explosive mixtures of hydrogen. Finely divided aluminum, such as small chips and fines, will form explosive mixtures in air. It will also form explosive mixtures in air in the presence of bromates, iodates, or ammonium nitrate. Strong oxidizers cause violent reactions with considerable heat generation.		
Hazardous Decomposition Products See Additional Information Section VII.		

VI. ENVIRONMENTAL

Spill or Leak Procedures
NA
Waste Disposal Method Used or unused product should be tested to determine hazard status and disposal requirements under federal, state, or local laws and regulations.

VII. ADDITIONAL INFORMATION

1. Do not touch cast aluminum metal or heated aluminum product without knowing metal temperature. Aluminum experiences no color change during heating. Burns could result.
2. Aluminum powder must be packaged and shipped as a flammable solid.
3. Hard alloy ingots in the 2000 and 7000 series must be stress relieved to prevent explosion when sawed.
4. The welding of aluminum alloys may generate carbon monoxide, carbon dioxide, ozone, nitrogen oxides, infrared radiation and ultraviolet radiation.

Disclaimer

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