



# Safety Data Sheet

REVISION DATE : 03/01/2019

## SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : Wrought Aluminum Alloy

CATALOG CODE : 3XXX Series Alloys

MANUFACTURER :

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## SECTION 2 – HAZARDS IDENTIFICATION

Health : 1

Flammability : 1

Reactivity : 1

## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	Typical Percent	OSHA PEL			ACGIH TLV			CAS Numbers
		Gas ppm	Respirable Dust/Mist mg/m <sup>3</sup>	Total Dust mg/m <sup>3</sup>	Gas ppm	Respirable Dust/Mist mg/m <sup>3</sup>	Total Dust mg/m <sup>3</sup>	
Aluminum **	>92.0	—	5	15	—	5	10	7429-90-5
Manganese **	<1.4	—	5C*	—	—	1	5	7439-96-5
Magnesium	<6.2	—	5	15	—	10	—	7439-95-4
Chromium **	<0.35	—	—	1	—	—	0.5	7440-47-3

\* "C" indicates ceiling value.

\*\* On SARA Section 313 list.

## SECTION 4 – FIRST AID MEASURES

SKIN : For minor burns, apply cold water. For severe burns, seek immediate medical attention.

EYE : Immediately flush with water for 15 minutes. Seek medical attention if irritation persists.

INHALATION : Remove to fresh air.

INGESTION : None necessary.

## SECTION 5 – FIRE FIGHTING MEASURES

FLAMMABILITY : YES? NO? X

FLASH POINT (Method Used) : N/A

WHAT CONDITIONS? N/A

UEL : N/A

LEL : N/A

MEANS OF EXTINCTION :

This product is non-combustible in bulk form. For fires involving aluminum fines or chips, use dry sand or Class D extinguishing agents approved for this use. DO NOT USE water or other liquids, foam, or halogenated extinguishing agents.

SPECIAL PROCEDURES :

Suspended aluminum dust, allowed to accumulate in a confined area, may be explosive. If remelted, moisture present in cavities or on external surfaces may cause an explosion.

AUTO IGNITION TEMPERATURE : N/A

HAZARDOUS COMBUSTION PRODUCTS : None known

SENSITIVITY TO STATIC DISCHARGE : None known

SENSITIVITY TO IMPACT : None known

ND = NOT DETERMINED N/A = NOT APPLICABLE

**SECTION 6 – ACCIDENTAL RELEASE MEASURES**

If molten, contain the flow by using sand or alumina as a dam. Do not attempt to halt the flow of metal with shovels or handtools.

LEAK AND SPILL PROCEDURE : If remelted, see **Aluminum Association publication #69 "Guidelines for Handling Molten Aluminum"**. The Aluminum Association, 900 19th St., N.W., Suite 300, Washington, D.C. 20006.

**SECTION 7 – HANDLING AND STORAGE**

HANDLING PROCEDURES AND EQUIPMENT : **See Aluminum Association publications, #69 listed above.**

STORAGE REQUIREMENTS : If remelted, make certain no water or moisture is present in cavities or on external surfaces.

**SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION**

ENGINEERING CONTROLS :

If ventilation is used to convey aluminum dust, generated by grinding, sawing, etc., special ventilation procedures may be necessary to avoid explosion hazards. **See National Fire Protection Association codes #65 and #651** (See address in Section 10).

PERSONAL PROTECTIVE EQUIPMENT :

GLOVES : As needed.

EYEWEAR : Safety glasses, goggles, face shield, or welding helmet, etc., as needed.

RESPIRATORY : Use NIOSH/MSHA-approved respirator for dusts/fume/mist, if TLVs or PELs are exceeded.

FOOTWEAR : Safety shoes, as needed.

CLOTHING : Appropriate welding protective equipment. If remelted, **see Aluminum Association publication, #69 listed above.**

**SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE : Solid

APPEARANCE/ODOR : Odorless, silvery gray color

ODOR THRESHOLD : N/A

pH : N/A

SPECIFIC GRAVITY : 2.5-2.9 g/cm<sup>3</sup>

MELTING POINT : 482°C-660°C

BOILING POINT : N/A

FLASHPOINT : N/A

VAPOR PRESSURE : N/A

VAPOR DENSITY : N/A

EVAPORATION RATE : N/A

COEFFICIENT OF WATER/OIL DIST : N/A

SOLUBILITY IN WATER : N/A

AUTOIGNITION TEMPERATURE : N/A

**SECTION 10 – CHEMICAL STABILITY AND REACTIVITY INFORMATION**

CHEMICAL STABILITY : Stable

REACTIVITY AND UNDER WHAT CONDITIONS :

If remelted, moisture present in cavities or on external surfaces may cause an explosion. Bulk aluminum dust when damp may heat spontaneously.

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**INCOMPATIBILITY TO OTHER SUBSTANCES : YES**

For aluminum fines: water, some acids, alkalis, and halogenated compounds. **See NFPA#491M** for specific incompatible materials. National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

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**HAZARDOUS DECOMPOSITION PRODUCTS :**

Finely divided aluminum reacts with water, some acids, and alkalis to produce hydrogen gas. Aluminum in contact with halogenated compounds can produce violent reactions and/or explosions.

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**SECTION 11 – TOXICOLOGICAL INFORMATION**

**ROUTE(S) OF ENTRY :**

INHALATION : YES

INGESTION : NO

SKIN ABSORPTION : NO

EYE CONTACT : YES

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**EFFECTS OF ACUTE EXPOSURE :**

Aluminum is considered a nuisance particulate. Welding or machining aluminum may generate dusts and fumes which may cause eye, nose, and throat irritation. Generally, if exposures for aluminum oxide are kept below the exposure limit, the alloy components should not present a health risk. Ozone may be emitted as a by-product during welding or plasma arc cutting. Exposure to ozone may produce irritation to eyes, nose, and throat. Welding and/or plasma arc cutting of aluminum alloys generates ultraviolet radiation which can cause skin burns or welders flash to unprotected skin and eyes.

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**EFFECTS OF CHRONIC EXPOSURE :**

Prolonged exposure to ozone may result in nausea, headache, and pulmonary damage. Chromium and certain of its compounds are classified as carcinogens in the latest Annual Report on Carcinogens as published by the National Toxicology Program (NTP) and by the International Agency for Research on Cancer (IARC).

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**LD50 OF PRODUCT :**

Aluminum : 9000mg/kg

Manganese -orl-rat : 9000mg/kg

Magnesium : Not known

Chromium : Not known

**LC50 OF PRODUCT :**

Aluminum : Not known

Manganese : Not known

Magnesium : Not known

Chromium : Not known

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**IRRITANCY OF PRODUCT :** Mild

**EXPOSURE LIMITS OF PRODUCT :** Use levels for aluminum shown in Section 2.

**SENSITIZATION TO PRODUCT :** None known

**SYNERGISTIC MATERIALS :** None known

**CARCINOGENICITY :** NTP, IARC, ACGIH

**REPRODUCTIVE EFFECTS :** None known

**TERATOGENICITY :** None known

**MUTAGENICITY :** None known

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE :**

Pre-existing upper respiratory and lung diseases such as, but not limited to, Bronchitis, Emphysema, and Asthma.

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## SECTION 12 – ECOLOGICAL INFORMATION

TOXICITY : Aluminum can be recycled. Aluminum alloys under solid form, such as ingots, coil or sheets, do not present any hazard for the environment because metals are not biologically available.

BIOACCUMULATIVE POTENTIAL : None available.

MOBILITY IN SOIL : None available.

OTHER ADVERSE EFFECTS : *None available.*

## SECTION 13 – DISPOSAL INFORMATION

WASTE DISPOSAL :

For disposal of this material as a waste, act in accordance with all applicable federal, state, and local waste management regulations.

## SECTION 14 – TRANSPORTATION INFORMATION

SPECIAL SHIPPING INFORMATION : None known

## SECTION 15 – REGULATORY INFORMATION

SARA

This product contains a chemical or chemicals subject to the reporting requirements of **Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372.**

## SECTION 16 – OTHER INFORMATION

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