
1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Alcan aluminum metal, 3XXX series alloys.

PRODUCT NUMBER: 000052 (P5543)

SUPPLIER:	Alcan Inc. Primary Metal Group	Alcan Aluminium Corporation (USA)
	1188, Sherbrooke West	6060, Parkland Drive
	Montréal, Québec	Mayfield Heights, Ohio
	Canada H3A 3G2	44124-3185
	Emergency phone: 1-800-919-1718	Emergency phone: 1-800-919-1718
Phone :	514-848-8000	Phone : 440-423-6600
Fax :	514-848-8115/8116	Fax : 440-423-6663

Alliages/alloys : 3002, 3003, 3004, 3005, 3006, 3007, 3010, 3011, 3099, 3101, 3102, 3103, 3104, 3105, 3107, 3207, 3303, 3709, 3903, 3XXX and 31246.

APPEARANCE AND ODOUR: Grey to silver solid; odorless.

USES: Primary metal.

2. COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS #	LD ₅₀	LC ₅₀	CONC.
Aluminum	7429-90-5	Unknown	Unknown	95.0 – 98.9%
Silicon	7440-21-3	3160 mg/kg (oral-rat)	Unknown	0.0 – 1.8%
Magnesium	7439-95-4	Unknown	Unknown	0.0 – 1.3%
Manganese	7439-96-5	9000 mg/kg (oral-rat)	Unknown	0.0 – 1.8%
Chromium	7440-47-3	Unknown	Unknown	0.0 – 0.4%
Copper	7440-50-8	Unknown	Unknown	0.0 – 0.5%
Zinc	7440-66-6	Unknown	Unknown	0.0 – 1.0%

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

3. HAZARDS 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 (Lith-X). Do not use water or halogenated extinguishing media.
HAZARDOUS COMBUSTION PRODUCTS:	Not applicable

6. ACCIDENTAL RELEASE MEASURES

Recycle. Aluminum in the form of particles may be reactive. Its hazardous characteristics, including fire and explosion, should be determined prior to disposal

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 the following documents published by Aluminum Association, 900 19th St., N.W., Washington D.C., 20006 : <ul style="list-style-type: none">- Guidelines for handling molten aluminum- Recommendation for storage and handling of aluminum powders and paste- Guidelines for handling Aluminum Fines generated during various aluminum fabricating operations
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/m³ (0.04 oz/ft³). See "National Fire Protection Association Codes": Code 65 "Processing and Finishing of Aluminum", Code 651 "Standard for the manufacture of aluminum and magnesium powder" and Code 77 "Static electricity". Use an approved respirator designed for the hazard, where concentrations exceed exposure limits.

For wetted coil of foil:

Do not cut, transport or even approach any coil giving off a crackling sound or emitting steam vapour. 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, leave the coil in place and keep people at least 30 meters away from it for at least 72 hours. (See Alcan publication entitled "Potential Safety Hazards of immersing a coil of Aluminum Foil in water").

EXPOSURE LIMITS :

	ACGIH(TLV)		OSHA(PEL)	
	TWA	STEL	TWA	CEILING
Aluminum - total dust	10 mg/m ³	None	15 mg/m ³	None
Fume, powder, respirable dust	5 mg/m ³	None	5 mg/m ³	None
Silicon (total dust)	10 mg/m ³	None	15 mg/m ³	None
(respirable dust)	None	None	5 mg/m ³	None
Magnesium, oxide (fumes)	10 mg/m ³	None	15 mg/m ³	None
Manganese (as Mn and compounds)	0.2 mg/m ³	None	None	5 mg/m ³
Chromium (metal)	0.5 mg/m ³	None	1.0 mg/m ³	None
Copper – (fume)	0.2 mg/m ³	None	0.1 mg/m ³	None
- (dust)	1.0 mg/m ³	None	1.0 mg/m ³	None
Zinc – (oxide fume)	5 mg/m ³	10 mg/m ³	5 mg/m ³	None
- (total dust)	10 mg/m ³	None	15 mg/m ³	None
- (respirable dust)	None	None	5 mg/m ³	None

(ACGIH= American Conference of Governmental Industrial Hygienists; TLV= Threshold Limit Value; OSHA= Occupational Safety and Health Administration [USA]; PEL= Permissible Exposure Limit; TWA= Time-Weighted Average; STEL= Short Term Exposure Limit; Ceiling = Ceiling value)

9. PHYSICAL AND CHEMICAL PROPERTIES

PH:	Not applicable	FLASHPOINT:	Not applicable
BOILING POINT:	Not applicable	AUTOIGNITION TEMPERATURE:	Not applicable
MELTING POINT:	482-660°C	LOWER FLAMMABLE LIMIT:	Not applicable
VAPOUR PRESSURE:	Not applicable	HIGHER FLAMMABLE LIMIT:	Not applicable
VAPOUR DENSITY (AIR = 1):	Not applicable	EXPLOSIVE PROPERTIES:	Not applicable
EVAPORATION RATE:	Not applicable	NFPA FIRE CODE:	0
RELATIVE DENSITY (WATER = 1):	2.5-2.9	OXIDIZING PROPERTIES:	Not applicable
WATER SOLUBILITY:	Not applicable	PARTITION COEFFICIENT	Not applicable
ODOUR THRESHOLD:	Not applicable	(N-OCTANOL /WATER):	

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 and silicon 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:

Certain alloys of this series may contain chromium. Chromium and its compounds are listed in the current annual report on carcinogens, prepared by the "National Toxicology Program" (NTP). Does not contain any other carcinogen or potential carcinogen (IARC, NTP, OSHA).

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 irritation or pulmonary discomfort. UV radiation can cause skin erythema and welders flash. High concentrations of freshly-formed magnesium oxide and manganese oxide fumes can produce symptoms of metal fume fever. High concentrations of manganese dust can affect the central nervous system (apathy, drowsiness, weakness and other symptoms resembling to Parkinson's disease).

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. Aluminum in the form of particles may be reactive. Its hazardous characteristics, including fire and explosion, should be determined prior to disposal. Dispose of waste in accordance with federal, state, or local regulations.

14. TRANSPORT INFORMATION

TDGR: not regulated CFR 49: not regulated IMO: not regulated ICAO: not regulated IATA: not regulated

[TMD = Reg. Transport des matières dangereuses (Canada). CFR 49 = Code of Federal regs. 49 (USA). OMI = Organisation maritime internationale. OACI = Organisation de l'aviation civile internationale. ATAI = Association du transport aérien international]

15. REGULATORY INFORMATION

WHMIS CLASSIFICATION (CANADA):	D2	Material causing other toxic effects.
EUROPEAN UNION CLASSIFICATION:	Not classified	
WARNING SYMBOL:	None	
WARNING WORD:	None	
RISK PHRASES:	None	
SAFETY PHRASES:	None	

USA REGULATIONS

This product contains trace amounts of lead (Pb) (< 0.1 %). Any process resulting exposure to more than 0.5 mg/m³ of metal dust per day may result in a daily dose of lead of over 0.5 µg/day, the dose above which the "California Safe Drinking Water and 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 may contain the following toxic chemical(s) 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. (This information must be included in all SDSs that are copied and distributed for this material).

Chemical Name	CAS number
Manganese	7439-96-5
Chromium	7440-47-3
Copper	7440-50-8
Zinc compound	-----

16. OTHER INFORMATION

ABBREVIATIONS :

WHMIS = Working hazardous material information system. CAS number = Chemical Abstracts Service Registry Number.
 LD₅₀ = Lethal dose 50%; LC₅₀ = Lethal concentration 50%; LCL₀ = Lowest published lethal concentration. EU = European Union.

* Although the information in this SDS 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 purposes only, without any representation or warranty express or implied. *

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REASON FOR REVISION: Addition in section 1 : synonyms.