

## DECLARATION ON HAZARDOUS SUBSTANCES

Official Corporate statement of Restricted Hazardous Materials – IMDS, RoHS, ILRS or GADSL

**Aluminum Alloys** produced by Allied Metal Company do not contain any declarable or prohibited substances above the threshold or reporting limits as defined by the EU Directive and as listed in the IMDS, ILRS, RoHS or GADSL lists (see definitions and possible substances below).

### 1. Background

This statement is related to the following EU Directives:

#### 1.1. EU-Directive 2011/65/EU (RoHS-2):

DIRECTIVE 2011/65/EU of the EUROPEAN PARLIAMENT and of The COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)

#### Directive 2015/863 (RoHS-3) maximum concentration values (MCV):

Lead (Pb): 0.1% = 1000 ppm

Cadmium (Cd) 0.01% = 100 ppm

Mercury (Hg) 0.1% = 1000 ppm

Hexavalent chromium (Cr VI) 0.1% = 1000 ppm

Polybrominated Biphenyls (PBB) 0.1% = 1000 ppm

Polybrominated Diphenyl Ethers (PBDE) 0.1% = 1000 ppm

Bis (2-Ethylhexyl) phthalate (DEHP): < 1000 ppm

Benzyl butyl phthalate (BBP): < 1000 ppm

Dibutyl phthalate (DBP): < 1000 ppm

Diisobutyl phthalate (DIBP): < 1000 ppm

#### 1.2. EU-Directive 2002/96:

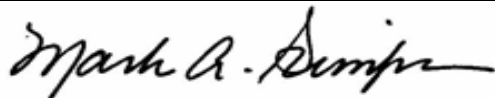
Waste electrical and electronic equipment, WEEE, effective as of 13 August 2005, concerning financing collection, treatment & recycling of waste.

### 2. Scope

This statement relates to all products purchased, manufactured and sold by Allied Metal Company (hereinafter AMC).

### 3. Terms of Compliance

3.1. As of 1 June 2006 AMC supplies products that are in full compliance with the European Union Directive 2002/95/EC (RoHS).



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3.2. As the requirements of 2002/95/EC (RoHS) and 2011/65/EU (RoHS-2) are identical, all AMC products are in effect in full compliance with 2011/65/EU (RoHS-2).

3.3. Additionally, none of the restricted substances of 2015/863 (RoHS-3) are intentionally added to any product supplied by AMC.

3.4. The concentrations of the hazardous substances found in all AMC products are warranted to be well below the MCV allowed by 2011/65/EU (RoHS-2) and 2015/863 (RoHS-3)

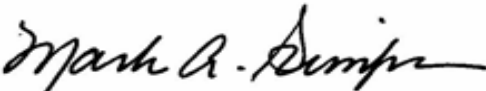
## Alloys:

### Specifications for Aluminum Ingot Alloys (ASTM B179-18)

Alloy			SI	FE	CU	MN	MG	CR	NI	ZN	SN	TI	OE	OT
ANSI	ASTM	UNS												
A380.1	SC84SA-B	A13801	7.5-9.5	1.0	3.0-4.0	.50	.10	....	.50	2.9	.35	....	....	.50
B380.1			7.5-9.5	1.0	3.0-4.0	.50	.10		.50	0.9	.35			.50
383.1			9.5-11.5	1.0	2.0-3.0	.50	.10		.30	2.9	.15			.50
384.1			10.5-12.0	1.0	3.0-4.5	.50	.10		.50	2.9	.35			.50
A413.1			11.0-13.0	1.0	1.0	.35	.10		.50	.40	.15			.25
A360.1			9.0-10.0	1.0	.60	.35	.45-.60		.50	.40	.15			.25
B390.1			16.0-18.0	1.0	4.0-5.0	.50	.50-.65		.10	1.4		.20	.10	.20
319.1			5.5-6.5	.80	3.0-4.0	.50	.10		.35	1.0		.25		.50
355.1			4.5-5.5	.50*	1.0-1.5	.50*	.45-.60	.25		.35		.25	.05	.15
356.1			6.5-7.5	.50*	.25	.35*	.25-.45			.35		.25	.05	.15
C443.2			4.5-6.0	1.0	0.60	.35	0.10		.50	.40	.15			.25
535.2			.10	.10	.05	.10-.25	6.6-7.5					.10-.25	.05	.15

\* If Fe content exceeds .45%, Mn shall be at least 1/2 of the Fe content

## RoHS-Recast Definitions

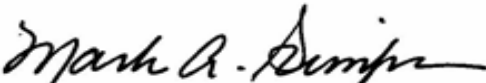
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Article 3 – Definitions: The object of the declaration described below, is in conformity with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. Restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE). EEE means equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1,000 volts for alternating current and 1,500 volts for direct current. Linear Technology's Analog Integrated Circuits are neither electrical nor electronic equipment and do not require the "CE" or "CCC" marking.

**Prohibited Substance:** In the IMDS, ILRS, and GADSL lists pertaining to EU Directive on end-of-life material restrictions and RoHS list pertaining to EU Directive – Restriction of the use of hazardous substances in electrical and electronic equipment, these substances are prohibited above the specific threshold reporting limit (0.1% unless otherwise listed). Possible substances and restrictions:

Substance	CAS	Class	Threshold
Cadmium (Cd)	7440-43-9	D/P	0.01% (any intentionally introduced content must be reported)
Lead (Pb)	7440-92-1	D/P	0.1% (any intentionally introduced content must be reported)
Mercury (Hg)	7439-97-6	D/P	0.1% (any intentionally introduced content must be reported)
Hexavalent Chromium (CR VI)	14977-51-8	D/P	0.1% (any intentionally introduced content must be reported)
Polybrominated Biphenyls (PBB's)		D/P	0.1% (any intentionally introduced content must be reported)
Polybrominated diphenyl ethers (PBDE)		D/P	0.1% (any intentionally introduced content must be reported)
Bis(2-Ethylhexyl) phthalate (DEHP):		D/P	0.1% (any intentionally introduced content must be reported)
Benzyl butyl phthalate (BBP):		D/P	0.1% (any intentionally introduced content must be reported)
Dibutyl phthalate (DBP):		D/P	0.1% (any intentionally introduced content must be reported)
Diisobutyl phthalate (DIBP):		D/P	0.1% (any intentionally introduced content must be reported)

"P" - Prohibited in all applications; "D" - Substance must be reported if the threshold limits are exceeded; "D/P" - Prohibited in some applications and declarable in all other cases.

	<p>Mark A. Simpson – Director of Operations Allied Metal Company (10/14/19)</p>
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