

ABC®Metals, Inc.

UNCOIL THE POWER OF ABC METALS Contact us Toll Free at 800-238-8470

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April 14th, 2016

Subject: Compliance to RoHS, GADL, TSZ0001G Restrictions on Substances of Concern.

We confirm that our company has received and reviewed the EVL/GADL and TSZ0001G standards for restricted and prohibited use of substances of environmental concern.

The key raw material suppliers of ABC® Metals have attested to full compliance of the above mentioned standards. ABC has also performed audits and 3rd party testing, using accredited laboratories to test our key alloys and products for the presence of any listed substance of concern compounds and elements. ABC® Metals verified that our products are in full compliance to the reference standards, being measurably absent of or less than the detection limits, for any of the SoC elements. See laboratory test report and data on Toyota FORM 2 11-2 SoC ESS which is posted on our website, and available to any individual or company wanting to have a copy of these compliance tests.

ABC®Metals is a registered user with the International Material Data System (IMDS), and is able to provide such information upon request.

If you have any questions or comments, please do not hesitate to contact an ABC Metals representative at the phone number listed above.

Regards,

Daniel Muddell
Signature

Dan Kendall
President
ABC®Metals Inc.

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Signature

Dee Butz Corp. Director of QA MPI Corporation

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Signature

Mike Englert
Mgr. Facilities & Environmental
ABC Metals and HTI Inc.

mikeng@callhti.com

Soc compliance evidence summary sheet (ess)				SUPPLIER APPROVAL SIGNATURES																				
Delivery Part Information			Cine /	APPROVER		APPROVE	R	ORIGNATO	R															
Vehicle Code Delivery Part No.	Delivery Part Name	Delivery Part Supplier Name	Supplier Code	Sign / Date	il KAl		6 Catol		wht.	4/40/0040														
		Supplier Name				19/2016 Mi	ike Englert / Di	4/19/2016																
				Title	an Kendall / Pre	sident Env	ike Englert / Di	d Facilites De	e Butz / Director o	of Quality *PI	ease reference 1	ISZ0001G to	obtain allowa	ible limits.										
				Basis for SoC Judgment																				
Sub-Component Part Name	Sub-Component Part No.	Suppl	lier Name	Pt)	Co	i I	,	łg		Cr+6	PE	BDE	Р	ВВ	Asi	estos	Deca-E	IDE	HBC		PFOS	_	Judgment
•	·			Method	Result	Method	Result	Method	Result	Method	Result	Method	Result	Method	Result	Method	Result	Method	Result	Method	Result	Method	Result	ı
C700 Series CuNiSi Alloy Sheet/Strip/Plate	C700 Series CuNiSi Alloy Sheet/Strip/Plate	ABC N	Metals Inc.	1	< 14 ppm	1	< 4 ppm	2	< 1 ppm	1	< 79 ppm	3	N/A	3	N/A	3	N/A	3	N/A	3	N/A	3	N/A	See Attached
			RoHS Limit	:	1000 ppm		1000 ppm		100 ppm		1000** ppm		1000 ppm		1000 ppm									
Method #	Machine									HTbs analysis	performed on these												\perp	-
1	Atomic Absorption Spectrometer									samples detect	ed total chromium and												\longrightarrow	
2	Cold Vapor Atomic Absorbtion									was not spe	cific to hexavalent . Total chromium would												\vdash	
3	N/A				-					include chromi	ium in a non-oxidized	•											1	
				-	-					state (Cr+0) Therefore, Cr+6	in addition to Cr+6. in the materials, if any,	.——			-								+	
		1		-			-			could never exc	eed the total chromium	-	1		-	-					1		+	
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Judgment O	Meets requirements	Х	Does n	not meet requirer	nents																	Form	2.11-2: Iss	sue 5, Rev. E
SLIDDLIED OC	989 50 00																							



Mr. Brennan Perez

ABC Metals

500 West Clinton

Logansport, IN 46947

Lab No.: 2016-030482A

Inception: March 29, 2016

Report Date: April 11, 2016

Amended: April 21, 2016

PO No.: LP001978

Project: Compositional Analysis (RoHS).

Sample(s) Received:

Eight (8) sections of metalic strip idenified in the reults section on page 2.

Procedure:

Approximately 1 gram was sectioned from each sample. The sections were digested in trace metal grade acid(s) then diluted to 50 ml times using ASTM Type 1 purified water. For lead, cadmium and chromium the prepared solutions were diluted an additional 10 times then analyzed via atomic absorption (AA) per a modified SM3111B procedure. For mercury, the prepared solutions were diluted an additional 7 times then analyzed per EPA 245.1.

Requirements:

Lead 0.1% by weight (1000 ppm)

Mercury 0.1% by weight (1000 ppm)

Cadmium 0.01% by weight (100 ppm)

Hexavalent Chromium 0.1% by weight (1000 ppm)

Note: It is our policy to keep copies of reports for seven years. The data is kept on file for up to seven years. Samples (if applicable) are kept for three weeks. Samples that are hazardous will be returned to the client. If this policy poses a difficulty, please contact us to make other arrangements. If reproduced, our report must be reproduced completely. Any unauthorized alteration of this report invalidates the content.

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Results:

It should be noted that in the table below any result listed as less than (<) were below the limits of detection for the analysis performed.

Sample	Compositional Results in ppm										
Sample	Pb	Hg	Cd	Total Cr*							
C102 High-Copper	212	<0.364	<4.73	<104							
C260 Brass	57.4	<0.342	<4.45	<97.8							
G1008 Cold Rolled Low Carbon Steel	<15.5	<0.298	5.42	277							
C7025 Copper Nickel	<14.3	<0.560	<3.59	<78.9							
C110 High-Copper	15.2	<0.259	<3.37	<74.1							
C519 Phosphor Bronze	<13.6	<0.261	<3.39	127							
C655 Silicon Bronze	<15.4	0.565	<3.84	250							
C425 Tin Brass	<17.3	<0.333	<4.32	<95.1							
RoHS Limit	1000	1000	100	1000**							

^{*}The analysis performed on these samples detected total chromium and was not specific to hexavalent chromium (Cr^{+6}). Total chromium would include chromium in a non-oxidized state (Cr^{+0}) in addition to Cr^{+6} . Therefore, Cr^{+6} in the materials, if any, could never exceed the total chromium content.

Disposition:

All samples conform to RoHS limits for lead, mercury, cadmium and hexavalent chromium.

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^{**}The RoHS limit is for hexavalent chromium (Cr⁺⁶) not total chromium.

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Additional Comments:

While no testing was conducted for asbestos, PBB, PBDE, Deca-BDE, HBCD or PFOS it would be highly unlikely for any to be present within the materials. PBB, PBDE, Deca-BDE, HBCD and PFOS are organic compounds used as flame retardants or surfactants (PFOS). These compounds have boiling points well below the melt temperatures of the alloys tested and would have been evolved or decomposed when the alloys were in a molten state. Similarly, asbestos is decomposed at temperatures between 1832-2282° F (1000-1250° C). For comparison purposes the melting point of pure copper is 1984° F (1085° C).

Respectfully Submitted,

Scientific Control Laboratories, Inc.

Christopher Catalina

Metallurgical Services, Ext. 41

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