

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,

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Signature

Dan Kendall President ABC®Metals Inc. danken@abcmetals.com

Signature

Dee Butz Corp. Director of QA MPI Corporation <u>deebut@abcmetals.com</u>

Signature

Mike Englert Mgr. Facilities & Environmental ABC Metals and HTI Inc. <u>mikeng@callhti.com</u>

SoC COMPLIANCE EVIDENCE SUMMARY SHEET (ESS)				SUPPLIER APPROVAL SIGNATURES																						
Delivery Part Information				 	APPROV		APPROVE		ORIGNATO	OR																
Vehicle Code		art No.	Delivery Part Name	Delivery Part Supplier Name	Supplier Code	Sign / Date		4/19/2016 2	h Cylet-	4/19/2016	wht_															
						Name / Title	Dan Kendall / F	N	like Englert / Di vironmental and	irector of			Please reference T	TSZ0001G to	obtain allow	able limits.										
Sub-Component Part Name				Supplier Name		Basis for SoC Judgment		Cd Hg				Cr+6 PBDE PBB			Asbestos Deca-BDE				HBCD PFOS			I.				
		Name	Sub-Component Part No.			Method	Pb Result	Method	Result	Method	Hg Result	Method	Cr+6 Result	Method	Result	Method	Result	Ast	Result	Method	Result	Method	Result	PFOS Method	Result	Judgment
C600 Se	eries Bronze Alloy Sheet	t/Strip/Plate	C600 Series Bronze Alloy Sheet/Strip/Plate	ABC	Metals Inc.	1	< 15 ppm	1	< 4 ppm	2	< 1 ppm	1	250 ppm	3	N/A	3	N/A	3	N/A	3	N/A	3	N/A	3	N/A	See Attached
																										·
	Method #		Machine		RoHS Limit	:	1000 ppm		1000 ppm		100 ppm	_	1000** ppm		1000 ppm		1000 ppm									
	1		Atomic Absorption Spectrometer									**The analy	sis performed on these													
	2		Cold Vapor Atomic Absorbtion									samples dete	ected total chromium and specific to hexavalent													
	3		N/A									chromium (Cre	+6). Total chromium would													
	-											include chro	omium in a non-oxidized •0) in addition to Cr+6.													
						1			1			Therefore, Cre	+6 in the materials, if any,				1	1								
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SLIPPI JEP OC																										



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.

Sampla	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 nonoxidized state (Cr⁺⁰) in addition to Cr⁺⁶. Therefore, Cr⁺⁶ in the materials, if any, could never exceed the total chromium content.

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

Disposition:

All samples conform to RoHS limits for lead, mercury, cadmium and hexavalent 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 ccatalina@sclweb.com

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