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AEROSPACE & ELECTRONICS

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Crane Electronics, Inc.

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TO: Our Valued Customers

FROM: Charlie Greene, Supply Chain Manager

SUBJECT: RoHS, WEEE and REACH Position for Interpoint Products

In response to requests for information regarding materials used in our products, the following outlines our product compliance to Restriction of Hazardous Substances (RoHS), Waste Electrical & Electronic Equipment (WEEE) and Registration, Evaluation and Authorization of Chemicals (REACh) Initiatives. The purpose of this memorandum is to clarify our position with respect to the use of these materials as it relates to Interpoint catalog products (See Tables A and B).

Waste Electrical & Electronic Equipment (WEEE)
Interpoint products are exempt from the collection, treatment, and re-cycling requirements specified by WEEE directive 2012/19/EU.

RoHS Lead-Free Position:
Interpoint products are not lead-free. However, Interpoint products may contain Sn96 solder which is alloyed with 96.5% tin (Sn), 3% silver (Ag), and .05% copper (Cu). Our external finishes are lead-free except for the following:

- Solder-sealed cases (lid to header) – (See Table A)

- Customer requested solder-dipped pins

100% Tin Position:
100% tin, which is the most common lead-free solderable finish, is not allowed as a component termination for Interpoint MIL-PRF-38534 QML products ("883", class H and class K screening). Reference MIL-PRF-38534 paragraph E.4.2.7 for additional details. 100% tin terminated components are allowed and may be present in Interpoint non-QML products ("ES" or "Standard" screening). Customers who require the exclusion of 100% tin from their products should order QML products.

Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) position:
The amount of toxic substances in Interpoint catalog products, which may be imported into Europe, are well below the limits imposed by EU Directives. Beyond the exceptions listed below, Interpoint products do not contain Substances of Very High Concern (SVHC) above the threshold value declared as per ECHA SVHC 163 last updated 15-Jan-2019. The candidate list can be found at the following location:

http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

Table A: REACh Exception List

Chemical	CAS #	Concentration by Weight	Model	Affected Component
Octamethyl Cyclotetrasiloxane	556-67-2	≥0.09 - ≤0.12%	MHF	RTV for magnetic
4,4'-isopropylidenediphenol	80-05-7	≥0.1 - ≤1%	FMTR, MFW, MGA, MHE, MHF, MSA, MTO, MTR, MTW, FM, FMA, FMB, FMD, FME, HUM-40, HUM-70	Epoxy preforms
Cadmium	1306-19-0 7440-43-9	See "Cadmium Position" below	FMTR, MFL, MTR	Inks and Glazes

Note: Concentration is listed by affected component. Total concentration per product model is far smaller.

Cadmium Position:
Cadmium material is being phased out of Interpoint products however the following product families still may contain cadmium; FMTR, MFL, MTR.

BeO Position:
BeO material is being phased out of Interpoint products however the following product families still may contain BeO; MTR, MHD, MFL and MOR.

Zinc Position:
Pure zinc is not used in Interpoint Power and Space products, though it might be found as an alloy or compound in some components (i.e. Ferrite magnetics MnZn).

Summary of Pure Tin

All MIL-PRF-38534 compliant products (class H & K) are free of 100% tin on any element finish, internal or external. The MFW, MTW, MHE, HR, FM, FMA, , as well as the non-QML MTR duals product series have 100% fused-tin finish on the product case and pins. This is a 100% matte tin finish, which has been hot dipped into oil during the package and cover manufacturing process.

Table B: Products Containing Pure Tin

	Screening Level		
Model	/883	/ES	/STD
MTR	Free of 100% of tin	Duals only Tin Case	Duals only Tin Case
FMD	Not available	Tin Case	Tin Case

Model	/ES	/STD
MFW	Tin Case	Tin Case
MTW	Tin Case	Tin Case
MHE	Tin Case	Tin Case

MTO	Tin Case	Tin Case
FM	Tin Case	Tin Case
FMA	Tin Case	Tin Case

Model	/HR
HR70x	Tin Case
HR30x	Tin Case
HR15x	Tin Case
HR12x	Tin Case

Sincerely,

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