

June 16, 2017

Dear Valued Customer,

Further to our interim letter dated May 18, 2017, we have now completed our review of the new law in Sweden that provides for a tax on certain chemicals in specified electronic goods.

Since we issued the interim letter, we have continued to receive inquiries regarding the precise content of our products and can appreciate these inquiries are being driven by your own customers who wish to determine the applicability of this tax to their products. Please be advised that this letter addresses the content of Isola's products only. Isola cannot provide tax advice on Swedish law. Customers throughout the supply chain must make their own determinations on this topic and should seek out professional advice as appropriate. That being said, our comprehensive review has led us to adjust some of our initial conclusions and recommendations in our interim letter.

As reported earlier the new law, Act 2016: 1067 (the "Act"), became effective on April 1, 2017 and tax liability will become applicable on July 1, 2017. You may view the text of the Act at <http://rkrattsdb.gov.se/SFSdoc/16/161067.PDF>. The annex at the end of the Act lists the bromine, chlorine and phosphorus containing compounds that are presumed to have been either physically added or chemically reacted into products unless demonstrated otherwise. The tax, however, is determined solely by the type of electronic good specified in the regulation. One group of goods is taxed at 8 SEK rate per kilogram and a second group is taxed at 120 SEK per kilogram. Both groups are capped at 320 SEK per taxable good.

There is a provision for a 50% reduction of the tax if the amount of additive bromine and chlorine are each kept below 1000 ppm at the homogeneous level.

Additionally there is a provision for a 90% reduction in the tax if the amounts of additive bromine, chlorine AND phosphorus are each kept below 1000 ppm at the homogeneous level AND any reactive bromine and chlorine is limited to less than 1000 ppm.

Please be advised that the Act and associated tax liability do not apply to goods that are sold directly to Swedish customers by businesses that are located and delivered from outside of Sweden.

Our review has confirmed that there are no identification, reporting or disclosure requirements under the law regarding the specific substances used in the electronic goods. Given the variety of formats we have received seeking product content information, it would be exceedingly onerous for Isola to respond to every customer-specific inquiry in the requested format. Additionally, we are constrained in our ability to fully disclose the specific substances in our products due to the terms of our agreements with our vendors and the need to protect our own intellectual property. For these reasons, this letter will serve as the as a standardized and sole response to all inquiries related to the Act.

Isola FR-4 materials all contain substantial amounts of bromine (>>1000 ppm) as "brominated epoxy polymers" which is listed in the Annex to the act. The bromine is reactive and there is no additive bromine present. As such these materials appear subject to tax liability under the Act but also seem to meet the requirements for the 50% reduction in tax liability. These products include:

**185HR, 254, 370 Turbo, 370HR, DE104, ED130UV, FR402, FR406, FR406N, FR408, FR408HR, G200, I-Speed, IS400, IS400HR, IS410, IS415, IS420 and IS620i.**

Isola RF/Microwave materials all contain substantial amounts of bromine (>>1000 ppm) of an additive brominated flame retardant. This flame retardant is included in the Annex to the Act and is considered Trade Secret. As such the identity will not be disclosed. These materials appear subject to tax liability under the Act and do not appear to meet the requirements for either reduction of tax liability. The products include:

**Astra MT77, I-Tera MT40, IS680, IS680AG and Tachyon 100G**

Isola's halogen-free materials all contain less than 1000 ppm bromine and less than 1000 ppm chlorine and greater than 1000 ppm of phosphorus. Inquiries regarding halogen-free materials will be addressed on an individual basis due to intellectual property concerns. A default position that these products are subject to tax liability under the Act and meet the requirements for the 50% reduction in tax liability would appear to be a conservative assessment as well. These products include:

**IS300MD and TerraGreen**

We are hopeful this letter provides all information necessary for your customers to determine their tax liability under the Act. If there is a need for any additional clarification or support, please have them contact me directly.

Kind Regards,



J. Neil Smith  
Global Product Compliance and Sustainability Manager  
[Neil.Smith@Isola-Group.com](mailto:Neil.Smith@Isola-Group.com)  
480-812-2561

Isola Group Sàrl  
3100 W. Ray Road, Suite 301  
P.O. Box 6070  
Chandler, AZ 85226  
Phone: 480-893-6527  
Fax: 480-893-1409