



Dear Customer,

IHS Markit has added the following environmental document to the active parts as mentioned in the document from the ST Microelectronics as of 01-February-2022.

Thank You.

**STMicroelectronics INTERNATIONAL N.V.**

Branch office of Plan-les-Ouates  
Chemin du Champ des Filles 39  
1228 Plan-les-Ouates  
Switzerland  
Phone +41 22 929 6926

Geneva, 1 February 2022

Object: REACH Communication to Customers

Dear Customer,

European Regulation N°1907/2006 "REACH" (Registration, Evaluation, and Authorization of Chemicals), went into effect on June 1st, 2007 (See <http://www.reach-compliance.eu/>). It aims at regulating the use of chemical substances within the European Union.

This is to inform you that STMicroelectronics is perfectly aware of the projected timetable to comply with this regulation, and that we are engaged to meet our legal obligations under REACH, as a manufacturer, importer of articles and as a downstream user of chemicals products.

Being well aware of the REACH initiatives, we have established a multi-disciplinary corporate team to oversee implementation and compliance with all aspects of the Regulation:

- Registration of Substances,
- Assessment of presence of Substances of Very High Concern (SVHC),
- Communication along the supply chain to suppliers and customers,
- Application of Substances Exposure Scenario,
- Restriction of Use according to Annex XVII,
- Authorization of Use according to Annex XIV.

It has been our intention to ensure full registration of substances included in chemical products and articles used in our manufacturing processes through our own suppliers. We have already received confirmation from our suppliers having fulfilled the registration deadline of November 30th 2010, May 31st 2013 and May 31st 2018.

Moreover, we constantly assess the presence of Substances of Very High Concern in the products used within our premises and in ST products, having a full visibility of our supplier deliveries and updating it at each new SVHC candidate list release.

All of ST products fall under the definition of articles within the REACH Regulation:

- None of them presents the notion of intentional release of Substances; therefore, no obligation of registration applies for STMicroelectronics.
- All ST products and its delivering packaging materials comply with the Annex XVII restrictions on articles, when applicable, as updated **till Nov 19<sup>th</sup> 2021**
- When relevant ST products are reported on the SCIP database.

To the best of our knowledge and comprehending the SVHC candidate included by ECHA through **Jan 17<sup>th</sup> 2022 @** <http://echa.europa.eu/web/guest/candidate-list-table>, and containing **223** substances, ST products and its delivering packaging materials do not contain SVHC candidate substances, except for some articles manufactured and/or imported by STMicroelectronics, that could be impacted by the presence of so called SVHC, as reported in the following page.

Products	Substances
Sawn wafers delivered with tape and ring	DEHP
Microelectromechanical systems sensors	Diboron Trioxide glass, Lead Oxide glass
Optical sensors	Diboron Trioxide glass
Glucose sensors	Diboron Trioxide glass
Devices in glass sealed packages	Diboron Trioxide glass
Integrated Passive Devices on glass	Diboron Trioxide glass
Network infrastructure devices	Diboron Trioxide glass
IPADs with PZT film capacitances on dice	Lead Titanium Zirconium oxide
Triacs with glass groove technology (fritted glass on die)	Lead Oxide glass
Glass-sealed diodes and diacs	Lead Oxide glass
Micromodules	Hexahydromethylphthalic anhydride
Plastic Module	Nonylphenol resin, EGDME
Battery Attached	Nonylphenol resin, EGDME
Battery Caphat	Nonylphenol resin, EGDME
Battery Snaphat	Nonylphenol resin, EGDME
Microcontroller evaluation boards containing battery	EGDME
Semiconductor on BGA and LGA substrate packages	BisphenolA
Semiconductor on flip chip packages	Lead in metal form RoHS exemption 15-15a / ELV exemption 8g
Power Devices	Lead in metal form RoHS exemption 7a / ELV exemption 8e
Semiconductor on tin/lead balls packages	Lead in metal form
Semiconductor on tin/lead based coated connection	Lead in metal form ELV exemption 8a

On June 18<sup>th</sup> 2012 ECHA included the substance Diboron Trioxide CAS 1303-86-2 in the so called SVHC candidate list. Diboron Trioxide may have been declared by our suppliers as a constituent of various electronic glass or parts containing glass or ceramic, since used in the manufacturing process of those glass or ceramic. Diboron Trioxide, reported in glass or ceramic, cannot be considered as a distinct substance at this point, since it is embedded into a glass or ceramic matrix and can no longer be referred to as a SVHC. Diboron Trioxide may be found in the detailed articles materials declaration, since it may have been declared by our suppliers, and it may have been reported as embedded in glass or ceramic matrix, but no obligations arise under REACH for STMicroelectronics and for the users of those articles including Boron containing glass or ceramics.

On December 19<sup>th</sup> 2012 ECHA included the substance Lead Oxide CAS 1317-36-8 in the so called SVHC candidate list. Lead Oxide may have been declared by our suppliers as a constituent of parts, electronic glass and/or glass paste since used in the manufacturing process of those glasses. Lead oxide, reported in glass cannot be considered as a distinct substance at this point, since it is embedded into a glass matrix and can no longer be referred to as a SVHC. Lead Oxide may be found in the detailed articles materials declaration, since it may have been declared by our suppliers, and it may have been reported as embedded in glass. STMicroelectronics fulfill the obligations under REACH for the use of the lead oxide containing glass and glass paste and no obligations under REACH arise for the users of those articles including lead oxide glass.

On January 12<sup>th</sup> 2017 ECHA included the substance BisphenolA CAS 80-05-7 in the so called SVHC candidate list. BisphenolA may have been declared by our suppliers at a concentration > 0.1 % w/w as a constituent of subparts (BGA and LGA substrates) used in the manufacturing of STMicroelectronics products. BisphenolA is embedded in the plastic part of the substrate as a residual/impurity from the resin manufacturing process.

You should contact your local sales representative in order to receive further details on material composition of the articles purchased and, where applicable, SCIP notification numbers.

**Jean Louis Champseix**  
Group Vice President  
Corporate Sustainability & Corporate Staffing



**Disclaimer:** Customer acknowledges and agrees that the Information in this document is ST confidential and is provided upon Customer specific request and solely in connection with the mentioned ST products. The Information is provided on "AS IS" basis without any warranty of accuracy, completeness, reliability or fitness for a specific purpose. The Information in this document is not applicable to other ST products. Any future Customer requests have to be reviewed and mutually agreed on a case by case basis by ST and the Customer. The Information in this document does not constitute any admission of liability but is solely made for internal discussion purposes between ST and the Customer. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice. Customer expressly agrees and acknowledges that neither the Information in this document, nor any act performed or document prepared pursuant to or in furtherance of this document (i) is or may be deemed to be or may be used as an admission of, or evidence of, the validity of any allegation relating to the product of ST, or of any wrongdoing or liability of ST, or of any damage, (ii) is or may be deemed to be or may be used as an admission of, or evidence of, any fault or omission of ST in any proceeding in any court, arbitration, agency, commission, or other tribunal, or (iii) is admissible in any proceeding. Disclosure of this document must be previously authorized by ST only under the provision of a signed NDA with ST. In no event shall the Information disclosed by ST hereunder be used against ST for a claim brought in front of any court or jurisdiction.