

Statement on REACH Provisions

This statement reflects a common understanding of the global semiconductor device manufacturers on the REACH regulation (EC) 1907/2006 as well as the NXP Semiconductors specific situation regarding REACH.

It outlines the various obligations with respect to the provisions on (pre-)registration, the notification of substances of very high concern and the disclosure of information that arise from this Regulation.

In addition, NXP Semiconductors would like to state that we are in contact with our upstream material suppliers on their preparations for REACH. This dialogue will designate that the appropriate section of the substance supply chain is fulfilling their responsibilities and obligations in terms of substance registration (and other relevant aspects) of substances which are used in the manufacturing process of semiconductor devices.

A - (Pre-) Registration Provisions

These points outline the common understanding of the global semiconductor industry with regard to clarifying who within the wider semiconductor supply chain has the responsibility to pre-register substances which are used in the manufacturing process of semiconductor devices under REACH and the associated timings.

1. Manufacturers and Importers of chemicals have to register substances in preparations at the European Chemicals Agency (ECHA) beginning on June 1st 2008, if the tonnage manufactured or imported exceeds 1 tonne/per year. Substances that have already been registered under the ELINCS (European List of Notified Chemical Substances) inventory are exempted for the registration obligation.
2. Substances that have already been listed in the EINECS (European Inventory of Existing Chemical Substances) inventory, to so-called *phase in substances* can be pre-registered from June 1st, 2008 to December 1st 2008. These substances will be registered later at a specific date dependent on the tonnage of the substance manufactured or imported.
3. Suppliers of substances and preparations have to submit a MSDS (Material Safety Data Sheet) to their industrial customers. In specific cases this MSDS has to be extended by exposure scenarios.

B – Registration and Notification Provisions of Substances in Articles

These points aim to clarify the common understanding of the global semiconductor industry with regard to the conditions attached to certain obligations under the registration and notification of substances in articles.

4. Producers and Importers of articles, which intend to release chemical substances under normal or reasonably foreseeable conditions of use, also have to register these substances, if the tonnage of the substances in the article exceeds 1 tonne per importer per year. The registration timeline is the same as under point 1 above.
5. Producers and Importers of articles that contain a substance that is on the substances of very high concern (SVHC) *candidate list*, have to provide appropriate information for safe use of the article (minimum requirement: name of the substance) to their industrial customers. If the tonnage of the particular SVHC in the articles exceeds 1 tonne/per importer per year and if the article contains the substance >0.1mass%, a notification to the European Chemical Agency is required, but not before June 1st, 2011.

6. For substances of very high concern (SVHC), if the producer/importer of the article can exclude exposure to humans or the environment under normal or reasonably foreseeable conditions of use including disposal, no notification to the agency is required. The producer/importer does not need to notify the substance, but shall supply appropriate instructions to the recipients of the article. The semiconductor industry believes that we can exclude exposure from any potential trace percentages amounts of SVHC contained in the semiconductor device or in its packaging material under normal and foreseeable conditions of use. The ends of life or disposal phase of electronic products are covered in the European Union by the WEEE Directive 2002/96/EC. Similar collection, recycling and recovery provisions and schemes are operating in other global regions and therefore human and environmental exposure can be excluded under the normal and reasonably foreseeable conditions of disposal also. Thus, the article producers and importers do not need to notify in line with Article 7.3.

The key point is that there is no intended release of chemical substances under normal or reasonably foreseeable conditions from the use of semiconductor devices in electronic products. There are therefore no obligations under point's no. 1, 2, 3 or 4 above for manufacturers of semiconductor devices.

As for point's 5 and 6, none of the NXP products (semiconductor devices, evaluation modules and used packaging materials) manufactured by or sold by NXP Semiconductors do contain any of the in total 138 substances that are currently on the candidate lists of SVHC published by ECHA with publication dates:

1. 28/10/2008
2. 13/01/2010
3. 30/03/2010
4. 18/06/2010
5. 15/12/2010
6. 20/06/2011
7. 19/12/2011
8. 18/06/2012¹
9. 19/12/2012¹

You can find the specific press releases via http://echa.europa.eu/news/archive_en.asp

¹ EU Decision number ED/87/2012 dated 2012/06/18 and EU Decision number ED/169/2012 dated 2012/12/19 added respectively Diboron Trioxide (EU# 215-125-8/CAS# 1303-86-2) and Lead Monoxide (EU# 215-267-0/CAS# 1317-36-8) to REACH Annex XIV as a substance of very high concern (SVHC). The SVHC's are Boron Trioxide and Lead Monoxide itself. Articles manufactured within the semiconductor industry may include Boron and/or Lead containing glass. Diboron Trioxide and/or Lead Monoxide may have been declared as a substance exceeding 0.1% by weight within various electronic glass or parts containing glass.

Glass is classified under REACH as an UVCB substance (substance of unknown or variable composition, complex reaction products or biological material) containing the elements silicon, calcium, sodium, potassium, magnesium and other cations bonded together by oxygen; these elements are bonded into a non crystalline molecular structure with completely different properties in comparison to the starting raw materials. Glass is not a mixture of compounds such as metals or oxides like SiO₂, Na₂O, CaO, B₂O₃, PbO, etc.

Glass does not contain the oxidized chemicals in the different raw materials. Therefore as Boron trioxide and Lead Monoxide are not present in the glass in its molecular form or Boron Trioxide as well as Lead Monoxide cannot be released under normal or reasonably foreseeable conditions there are no obligations applying under the EU REACH regulation of communication to customers and notification to ECHA for articles containing glass, due to the inclusion of Diboron Trioxide (EU# 215-125-8/CAS# 1303-86-2) and Lead Monoxide (EU# 215-267-0/CAS# 1317-36-8) to REACH Annex XIV.



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Furthermore, NXP Semiconductor products do not contain any of the substances above the maximum limits under the given application of Annex XVII of the REACH Regulation (EC) 1907/2006 (which has replaced EU Directive 76/769/EEC).



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