

TO: Valued Customers:

August 02,2017  
Phenittec Semiconductor Corp.  
Naoki FUJISHIRO  
Director of QA Department

## Chemical Substances Contained in Our Products (Semiconductor wafers and chips)

Followings is our company policy regarding information and disclosure on chemical substances contained in our products

### 1) RoHS

Our products (semiconductor wafers and chips) conform with the 6 substances (Cadmium, Mercury, Lead, Hexachromium, PBB and PBDE) regulated under RoHS directive.

### 2) REACH

Our products (semiconductor wafers and chips) do not contain the 174 Substances of Very High Concern (SVHC) announced on Jul 07 2017.

Unless chemically modified, natural substances such as minerals or metals shall not be requested to register. Hence our products made of highly purified metal materials do not contain something which will be released to environment under normal use and are not subject to REACH.

In the event that metals were added in the SVHC list, and if our products happened to contain such metals, then upon your request we would pleased to disclose that information in our "SDS" prepared by Phenittec Semiconductor Corp.

### 3) PFOS

Our products (semiconductor wafers and chips) do not contain PFOS regulated under PFOS regulation (2006/122/EC)

### 4) Halogen Free

Main usage of Halogen substances (Fluorine, Chlorine, Bromine, Iodine and Astatine) such as bromine chlorine is flame retarder in resin, PVC coating of electric code and others. They are used in printed circuit board, apparatus box, cable, connector, adhesive, and other plastic materials. The term "Halogen Free" used in the semiconductor industry refers to packaging technology and the ground for this is stipulated in the J-STD-609. The scope of J-STD-609 applies to printed circuit boards/assemblies. Thus our products are not subject to this J-STD-609.

Our products (semiconductor wafers and chips) made of metals only as their composition materials do not contain Halogen.

5) GADSL (Global Automotive Declarable Substance List)

Our products (semiconductor wafers and chips) may contain Arsenic or Nickel in extremely small quantities specified under GADSL due to product characteristics.

Upon your request we would pleased to disclose that information in our “SDS”

Prepared by Phenitec Semiconductor Corp.

## 6) Bases for non-contain

## a) Heavy Metals (Cadmium, Mercury, Lead and Hexachromium)

Our products are semiconductor wafers and chips and use only highly purified materials guaranteed for their purity. In the event heavy metals were mixed into the device accidentally, silicon crystals would be collapsed because of product characteristics. Hence quality checks prior to shipment would judge them as no good and never reach at the hands of customers.

## b) Control System of Chemical Substances

In order to prevent mixture or contamination of RoHS regulated heavy metals ( Pb, Hg, Cd and Cr) into our purchased materials and our manufacturing process, we have introduced system based on ISO14001 and guidelines of JAMP to control our factory. To verify its effectiveness, we analyze each manufacturing lines ( product groups). We are also certified with Green certification of SONY and CANON.

Notes) JAMP : Joint Article Management Promotion – consortium

## c) Organic Chemical Substances

## • Artificial Chemical Substances

Example) PFOS (Perfluorooctane sulfonate)

PFOA (Perfluorooctanoic acid)

PVC (Polyvinyl chloride)

Organic Chlorinated Compound

These are artificial chemical substances and are not created under natural environment. Therefore they will not be contained in our products unless intentionally included.

Our products (semiconductor wafers and chips) made of metals only as their composition materials do not contain organic chemical substances. Therefore we would like to have your kind understanding for Phenitec being not in the position of accepting requests for the measurement. See comment\*

## • Chemical Substances exist in the natural world

Example) PAHs (Poly Aromatic Hydrocarbons)

PAHs is the general name given to aromatic hydrocarbons which have two or more benzene cycles. They widely distributed in the environment due to synthesis by bacteria and plants, and combustion of coal and oil which are fossil fuel.

Creosote oil which richly contains aromatic hydrocarbons is the liquid distilled from coal-tar. Its major usage is carbon black materials for tire rubber. Partially it is used as

antiseptic for wood materials used in outdoor utility pole.

Our products (semiconductor wafers and chips) made of metals only as their composition materials do not contain organic chemical substances. Therefore we would like to have your kind understanding for Phenitec being not in the position of accepting requests for the measurement.

7) Information regarding chemical substances contained in products

a) RoHS Heavy Metals (Pb, Hg, Cd and Cr<sup>6+</sup>)

To verify effectiveness of our chemical substance control system, we analyze each manufacturing lines (product groups). Upon request we would be pleased to submit our measuring data.

b) Organic Chemical Substances

As explained in the above item 6)- C), we would like to have your kind understanding for Phenitec being not in the position of accepting requests for measuring organic chemical substances such as PFOS, PFOA, PVC, PAHs in our products (semiconductor wafers and chips). See comment\*

c) Other Chemical Substances

Upon your request we would be pleased to disclose that information in our "SDS" prepared by Phenitec Semiconductor Corp.

Above explains our company policy regarding chemical substance information contained in our products.

As explained in the above, basically we would like to have your kind understanding for Phenitec being not in the position of accepting requests for measuring components not contained in our products. In case it is a must, please let us know the reasons why. We will review your request internally. However please note that we have to ask you to bear the cost of such measurement. Please also note that our company policy may change to reflect the changes in the world.

Comment\*) Upon your request we would be happy to submit measuring data for the substances regulated under RoHS(Six substances including PBB and PBDE) and Halogen substances (Fluorine, Chlorine, Bromine, Iodine).

DATE: August 02,2017

Signature:



Naoki FUJISHIRO

Stamp

