**REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) Regulation**

LG Electronics Inc. (LGE) is committed to meeting all legal obligations under REACH as an "article"[1] manufacturer and importer. Since REACH requires close communication between all players in the supply chain (both upstream and downstream), we inform you of our REACH compliance status and related activities as follows.

**Meet pre-registration and registration obligations.** LGE has been communicating with all companies in its supply chain regarding the EU chemicals regulation, REACH. We have proposed to identify all of the substances which LGE imports or purchases from inside or outside the EU. LGE confirms that all substances requiring pre-registration have been pre-registered by 1st December 2008. These substances will be registered in the European Chemicals Agency (ECHA) system as required by the regulation. Further, we will only purchase the substances (pre-) registered with the ECHA.

**Provide information on Substances of Very High Concern (SVHC).** The SVHC "candidate list for Authorization can be updated at any time (i.e. it is a "living list"). As soon as a SVHC appears on the "candidate list", suppliers of articles containing the SVHC must forward information on the listed SVHC contained in the article (above a concentration of 0.1% weight by weight) to article recipients. An updated version of the "candidate list" can be found in the ECHA website: http://echa.europa.eu

LGE is fully aware of the judgment of the European Court of Justice of 10 September 2015 in case C-106/142, clarifying the definition of "articles" in EU REACH Regulation. We endeavor to follow this rule in terms of our complex products by providing SVHC information at the smallest article level that is practical and technically feasible to the best of our knowledge from our supply chain.

Please refer to the annex of this letter for LGE's latest SVHC statement. Notice of any change regarding this information, including changes reflecting any new substance addition to the candidate list, will be posted on the LGE homepage: http://www.lg.com/global/sustainability/environment/management-of-hazardous-substances

**Meet notification obligations.** All articles manufactured in or imported into the EU, which contain a SVHC on the "candidate list" in a concentration above 0.1% and which have a total SVHC quantity over 1 tonne per year per legal entity, must be notified to ECHA. For SVHC included in the "candidate list" before 1 December 2010, notifications have to be submitted no later than 1 June 2011. For SVHC included in the "candidate list" on or after 1 December 2010, notifications have to be submitted no later than 6 months after the inclusion. Notification is not required if the substance has already been registered for that use or where exposure to humans and the environment can be excluded during normal conditions of use. It is anticipated that substances used in electronic products will be registered by raw material manufacturers within the supply chain. If necessary, LGE will ensure that all SVHC are notified to the ECHA as required in order to comply with this requirement.

[1] REACH defines an article as: an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition.

**TO ALL INDUSTRIAL OR PROFESSIONAL USERS, OR DISTRIBUTORS**
**AND IN REPLY TO CONSUMER INQUIRIES**
**WHEN SVHCs ABOVE 0.1% W/W**

The REACH Regulation (EC) 1907/2006 defines substances of very high concern ("SVHCs") as substances that are classified as: carcinogenic, mutagenic or toxic for reproduction ("CMR") Category 1A or 1B, persistent, bioaccumulative and toxic ("PBT"), very persistent and very bioaccumulative ('vPvB"), endocrine disruptors, or raise other equivalent health and environmental concerns.

Pursuant to REACH, certain SVHCs have been, or will be put on the "candidate list for authorisation." Additions to the "candidate list" can be made at any time (i.e., it is a "living list"). As soon as an SVHC appears on the "candidate list" suppliers of articles[1] containing the SVHC must forward information on the listed SVHC contained in the article (above a concentration of 0.1% weight/weight) to the industrial or professional user, or distributor, being supplied with the article (Article 33(1)). Suppliers must also, upon request, supply a consumer with the same information within 45 days of receipt of the request (Article 33(2)).

Considering the SVHC as listed in the current version of the "candidate list" and based on the current available information as collected throughout our supply chain, please see below the information as required in Article 33 of REACH.

| Substance name | CAS Number | Comment |
|---|---|---|
| Aluminosilicate, Refractory Ceramic Fibres | - | Used in internal ceramic insulator. |
| Trixylyl phosphate (TXP) | 25155-23-1 | Used in urethane molding (transformer reactor, noise filter, PCB assembly and motor). |
| 2-(2H-Benzotriazol-2-yl)- 4,6-ditertpentylphenol (UV-328) | 25973-55-1 | Used in polarizer in LCD panel film. |
| 1,3-Propanesultone | 1120-71-4 | Used in electrolyte for lithium batteries. |
| 1,2-dimethoxyethane (EGDME) | 110-71-4 | Used in coin batteries. |
| Tris(2-chloroethyl) phosphate (TCEP) | 115-96-8 | Used in polyurethane foam. |
| 1,6,7,8,9,14,15,16,17,17,18,18-dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene (Dechlorane Plus) | 13560-89-9 | Used in PCB assembly, IC chips, and insulation film and adhesive for module assembly. |
| Diboron trioxide (Boric oxide) | 1303-86-2 | May be contained in resistor, capacitor and glass within electrical contacts and exterior parts. |
| Dibutylbis(pentane-2,4-dionato-O,O')tin | 22673-19-4 | Used in headset and speaker module. |

| Substance name | CAS Number | Comment |
|---|---|---|
| Boric acid | 10043-35-3 | May be contained in optical polarizing glass within electrical contacts and exterior parts. |
| Octamethylcyclotetrasiloxane (D4) | 556-67-2 | May be contained in Silicon rubber and harness assembly. |
| Cadmium oxide | 1306-19-0 | May be contained in electrical contacts.* |
| Orange lead (lead tetroxide) | 1314-41-6 | May be contained in socket card and buzzer within electrical contacts and exterior parts. * |
| Lead titanium trioxide | 12060-00-3 | May be contained in thermistor and vacuum fluorescent display within electrical contacts and exterior parts. * |
| Lead titanium zirconium oxide | 12626-81-2 | May be contained in resonator within electrical contacts and exterior parts. * |
| Lead | 7439-92-1 | May be contained in an alloying element in steel/aluminium/copper and high melting temperature type solders* |

* It is allowed to be used according to Annex III to Restriction of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2011/65/EU.

**Information on safe use/handling including safe disposal:**

- Should only be used for its intended application.
- Should be kept out of reach of young children.
- Dispose in accordance with EU WEEE Directive.

This information is transmitted in good faith to you based solely upon the information which our substance suppliers have provided to us.

Should you need further information or specific product group information, please contact REACH@lge.com.

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