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 make our best effort to identify all of the substances which LGE imports or purchases from inside or outside the EU and only purchase the substances (pre-) registered with the ECHA, when supplying them on the EU market.

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: **https://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:

https://www.lg.com/global/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 no later than 6 months after the inclusion of SVHC in the list. 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.

Register SVHC information on SCIP DB. In pursuant to Directive (EU) 2018/851, the amendment to Directive 2008/98/EC), all article suppliers in the EU are obliged to register articles they supply on so-called SCIP database (SCIP DB) as of 5 January 2021 if any SVHC is contained in an article above 0.1% weight by weight.
LG Electronics is fully aware of this obligation and has submitted SCIP notifications (*) for articles being supplied as of 5 January 2021. Since it is a continuous obligation, we are committed to make submissions regularly as new articles are supplied in the EU.
We are also aware that some of our customers further down the supply chain (ex. distributors) have an obligation to submit SCIP notifications on this Database as well, which can be fulfilled by submitting Simplified SCIP Notifications (SSN). We are currently working on an efficient solution to provide SCIP numbers to our customers on order to help them to meet their own obligation. Until then, please contact your local suppliers in case you need our SCIP numbers. We kindly ask you to provide model names for which you need SCIP numbers.

(*) The approach taken by LG Electronics is conservative and we make submissions in some cases where SVHC is more than 0.1% at the homogenous material level but not necessarily at an article levels.

Meet UK REACH Legislation. Since 1st January 2021, UK REACH is applicable in Great Britain. The key principles of EU REACH are retained under this UK REACH Legislation. LG will keep monitoring its development and is committed to meet all obligations in Great Britain as well.

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.
Cobalt dinitrate	10141-05-6	Used in Motor.
2-Ethoxy acetate	111-15-9	Used in Thermistor.
2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	79-94-7	Used in Case and Motor assembly.

Substance name	CAS Number	Comment
Melamine	108-78-1	Used in Guide, suction and valve assembly
2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol	3147-75-9	Used in plastic parts of display products and automobile
2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	119344-86-4	Used in Inks.
Bumetrizole	3896-11-05	Used in lens.
Diboron trioxide (Boric oxide)	1303-86-2	May be contained in resistor, capacitor and glass within electrical contacts and exterior parts.
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*
Diphenyl(2,4,6-trimethylbenzoyl)phosphineoxide	75980-60-8	May be contained in Inks, coating products, photo-chemicals, polymers, adhesives, battery etc.
Bis(α,α-dimethylbenzyl) peroxide	80-43-3	May be contained in a synthetic rubber material.
Triphenylphosphate	115-86-6	May be contained in plastic parts, bare PCB and electric wire insulation.
Octamethyltrisiloxane	107-51-7	May be contained in coating for PCB, Battery, LED chip/package, Lamp, etc.

* 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.

Updated in Feb 2025